

CLIMATE CHANGE COMPLIANCE

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Abstract

Unless corporations prioritize climate change mitigation, efforts to control global warming will fail. Yet, the strategies that have been proposed for enlisting corporations are insufficient to the task. In our era of political polarization, a comprehensive “Green New Deal” to transition the U.S. economy away from fossil fuels is a nonstarter. Nor can we expect corporate risk management or social responsibility to fill the gap; there are practical limits to how far corporate managers can depart from strategies designed to maximize profits for investors.

This Article contends that climate change is a compliance issue. Scholars have overlooked compliance as a solution because they believe it achieves nothing more than fidelity to existing laws and regulations. This is a mistake. Once neglected as a backwater of corporate governance, the field of compliance has evolved and now involves forward-looking strategic analysis of legal and business risks as well as ethical considerations. A compliance-based approach best captures the rationale for holding corporations responsible for climate change and provides a robust framework for achieving results.

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I. INTRODUCTION

Climate change has dramatically increased the frequency and severity of disasters including hurricanes, floods, wildfires, droughts, heatwaves, and pandemics.¹ Disasters threaten corporations' physical assets, employees, and customers. In a globally connected economy, moreover, climate-change fueled disasters disrupt supply chains, upend markets, and

¹ See U.S. GLOBAL CHANGE RSCH. PROGRAM (USGCRP), CLIMATE CHANGE IMPACTS IN THE UNITED STATES: THE THIRD NATIONAL CLIMATE ASSESSMENT 11 (Jerry M. Melillo et al. eds., 2014), https://nca2014.globalchange.gov/downloads/low/NCA3_Climate_Change_Impacts_in_the_United%20States_LowRes.pdf ("Precipitation patterns are changing, sea level is rising, the oceans are becoming more acidic, and the frequency and intensity of some extreme weather events are increasing. Many lines of independent evidence demonstrate that the rapid warming of the past half-century is due primarily to human activities."); Cinnamon P. Carlarne, *U.S. Climate Change Law: A Decade of Flux and an Uncertain Future*, 69 AM. U. L. REV. 387, 389 (2019) ("The reality of anthropogenic climate change is no longer subject to scientific debate.").

make certain risks uninsurable, affecting corporations no matter where they are located.²

Corporations have acknowledged the problem of climate change, but they have not taken measures sufficient to bring climate change under control. Notably, “[t]o effectively respond to climate change, the U.S. energy system requires a radical transformation—often called ‘decarbonization’—from predominantly fossil-fuel-fired energy to almost exclusively carbon-free energy sources.”³ For many corporations, this will be a heavy lift, and few may be willing to prioritize environmental issues at the expense of profitability.⁴

Unless corporations prioritize climate change mitigation, efforts to control global warming will fail. Yet, the strategies that have been proposed for enlisting corporations are insufficient to the task. In our era of political polarization, a comprehensive “Green New Deal” to transition the U.S. economy away from fossil fuels is a nonstarter.⁵ Nor can we expect corporate risk management to fill the gap. Viewed from that perspective, climate change is just another external risk to hedge against, no different in principle than the risk that interest rates might rise or that an economic downturn could reduce the demand for a corporation’s

² Disasters impact business organizations of all types and most of the arguments advanced in this Article apply regardless of the form of business association. For ease of reference and because most of the literature focuses on corporations, we will follow that convention here.

³ Shelley Welton, *Grasping for Energy Democracy*, 116 MICH. L. REV. 581, 583 (2018).

⁴ See Sarah E. Light, *The Law of the Corporation as Environmental Law*, 71 STAN. L. REV. 137, 204 (2019) (stating that as a matter of risk management, “[e]nvironmental values could be outweighed by the balance of other factors”). At present, notwithstanding efforts to prioritize green energy, “61 percent of the electricity sector and 92 percent of the transportation sector remain powered by fossil fuels.” Alexandra B. Klass & Shantal Pai, *The Law of Energy Exports*, 109 CALIF. L. REV. 733, 742 (2021).

⁵ See Timothy Gardner, *Republicans Defeat Green New Deal in U.S. Senate Vote Democrats Call a Stunt*, REUTERS (Mar. 26, 2019), <https://www.reuters.com/article/us-usa-climate-greennewdeal/republicans-defeat-green-new-deal-in-u-s-senate-vote-democrats-call-a-stunt-idUSKCN1R71BZ>. Then-Majority Leader Mitch McConnell described the Green New Deal as “self-inflicted economic ruin that would take a sledgehammer to America’s middle class.” *Id.* For a pithy explanation of the Green New Deal, see Lisa Friedman, *What is the Green New Deal? A Climate Proposal, Explained*, N.Y. TIMES, Feb. 21, 2019.

products or services.⁶ Corporations might agree to reduce their carbon usage as a matter of corporate social responsibility (CSR) or to serve environmental, social, and governance (ESG) goals, but there are practical limits to how far corporate managers can depart from strategies designed to maximize profits for investors.⁷

This Article argues that climate change is a compliance issue. Once triggered, compliance obligations go further than standard risk management—crucially, compliance is mandatory and not beholden to a profit-maximization analysis.⁸ Scholars have overlooked compliance as a solution because they believe it achieves nothing more than fidelity to existing laws and regulations. This is a mistake. In recent years, compliance has gained prominence and power.⁹ Indeed, according to one commentator, “the oversight and control of internal corporate

⁶ See Light, *supra* note 4, at 140 (describing traditional view of the distinction between public environmental law and private markets: “firms maximize their value within markets that are designed to promote efficient competition, while the government, through public environmental law, should address any negative externalities associated with market production”); Stavros Gadinis & Amelia Miazad, *Corporate Law and Social Risk*, 73 VAND. L. REV. 1401, 1405 (2020) (“For the last half century, interpreting shareholder primacy as a requirement to maximize profits has remained the reigning credo of the corporate world.”); Stephen M. Bainbridge, *Director Primacy and Shareholder Disempowerment*, 119 HARV. L. REV. 1735 (2006). The locus classicus for the argument is Milton Friedman, who argued “there is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game.” Milton Friedman, *The Social Responsibility of Business Is to Increase Its Profits*, N.Y. TIMES MAG., Sept. 13, 1970.

⁷ See, e.g., Gadinis & Miazad, *supra* note 6, at 1409 (“Traditional carveouts from shareholder primacy, such as for charitable donations, are too limited to accommodate sustainability, which often calls on companies to redesign core business practices.”). Arguments for using corporate law to advance sustainability goals may be characterized as “going beyond mere compliance.” Light, *supra* note 6, at 139. Professor Light contends that the contours of antitrust law, bankruptcy law, and securities law can shape how corporations address environmental issues. *Id.* at 141 (arguing that firms that “go beyond compliance” may “exhibit environmental leadership through private environmental governance”).

⁸ See Einer Elhauge, *Sacrificing Corporate Profits in the Public Interest*, 80 N.Y.U. L. REV. 733, 761 (2005) (stating that corporate managers have a “fiduciary duty to comply with the law even when compliance requires sacrificing profits”).

⁹ See *infra* Section II.B.

affairs . . . has been overtaken by compliance.”¹⁰ Far from being a neglected backwater, compliance has emerged as a major component of corporate governance.¹¹ Compliance officers enjoy direct access to CEOs and boards of directors and participate in the formulation of corporate strategy. Notably, compliance now includes forward-looking strategic analysis of legal and business risks as well as ethical considerations.

Compliance provides a better framework for battling climate change than risk management. Whereas risk management identifies climate change as an external risk, which falls outside the corporation’s responsibilities, compliance focuses on internal risks. Climate change compliance obligations present internal risks that a corporation may fail to meet.¹² Second, and relatedly, compliance has a single overriding priority for risks that fall within its purview—eradication. By contrast, when evaluating non-compliance risks, corporations may decide that it is cheaper to insure against possible harms than to seek to prevent them from occurring. Third, a compliance approach to climate change mitigation offers a robust set of tools for planning, reporting, and oversight.¹³

This Article proceeds as follows. Part II argues that corporate compliance, properly understood, encompasses a strategic approach to assessing risks. Part III argues that a corporation’s climate change

¹⁰ Sean J. Griffith, *Corporate Governance in an Era of Compliance*, 57 WM. & MARY L. REV. 2075, 2077 (2016). We do not dispute Professor Griffith’s assertion that compliance has undermined the corporation’s traditional autonomy as to governance matters, but we argue that mitigating climate change is far more important than preserving existing principles of corporate governance. Also, relatively moderate course corrections today may forestall more comprehensive public intervention into the structure of corporate law. For a plausible, albeit necessarily speculative account of such a world, see KIM STANLEY ROBINSON, *THE MINISTRY FOR THE FUTURE: A NOVEL* (2020).

¹¹ Geoffrey Parsons Miller, *Compliance: Past, Present and Future*, 48 U. TOL. L. REV. 437, 437 (2017) (stating that compliance “is coming of age as a field of legal practice, as a subject taught in law schools, and as a field of research and analysis by academics and thoughtful practitioners”).

¹² It is possible to further divide each corporation’s climate “risks into two major categories: (1) risks related to the transition to a lower-carbon economy and (2) risks related to the physical impacts of climate change.” TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES, RECOMMENDATIONS OF THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES 5 (2017), <https://www.fsb-tcf.org/wp-content/uploads/2017/06/FINAL-TCFD-Report-062817.pdf> [<https://perma.cc/R2PY-QGWM>].

¹³ See *infra* Section II.B.

response should be integrated with its compliance function and not handled solely as a matter of standard risk management or well-meaning but peripheral CSR or ESG initiatives. Part IV identifies several avenues for creating compliance obligations, including shared governance through self-regulatory organizations, private ordering in supply chain contracts, securities law disclosures, environmental litigation, shareholder proposals and proxy challenges.

II. RISK MANAGEMENT VERSUS COMPLIANCE

Corporate compliance is “a system of policies and controls that organizations adopt to deter violations of law and to assure external authorities that they are taking steps to deter violations of law.”¹⁴ This section distinguishes compliance from more general principles of risk management and also explains the rapid expansion of the compliance role in recent years. In particular, this section emphasizes that compliance is now understood to include the enforcement of ethical norms as well as black-letter rules.¹⁵

A. *The Traditional Distinction*

Corporations seek to earn profits for the benefit of shareholders who contribute capital to the venture.¹⁶ A basic feature of the corporation—

¹⁴ Miriam Hechler Baer, *Governing Corporate Compliance*, 50 B.C. L. REV. 949, 958 (2009). Those policies and controls encompass “prevention, detection, investigation, and remediation.” Veronica Root, *The Compliance Process*, 94 IND. L.J. 203, 219–20 (2019).

¹⁵ See Baer, *supra* note 14, at 960 (“Compliance programs also deter wrongdoing by generating social norms that champion law-abiding behavior.”); Geoffrey P. Miller, *The Compliance Function: An Overview* 18 (N.Y.U. Law & Econ. Rsch. Paper No. 14-36, 2014), <https://ssrn.com/abstract=2527621> (“Organizations often include the term ‘ethics’ in their compliance programs, promulgate codes of ‘ethics’ that include a compliance component, and create positions such as ‘chief ethics officer’ that include responsibility for compliance.”).

¹⁶ See Henry Hansmann & Reinier Kraakman, *The Essential Role of Organizational Law*, 110 YALE L.J. 387 (2000); Gadinis & Miazad, *supra* note 6, at 1463 (“For many decades, corporate boards were provided with a clear-cut mandate to maximize profits for shareholders, widely interpreted as leaving no space for considering other stakeholders’ interests.”).

limited liability for shareholders—incentivizes risk taking by limiting the possibility of shareholder losses to the amount of their investment.¹⁷ Still, there is a difference between sensible risks and foolhardy ones. Corporations undertake risk management to identify significant risks, to evaluate them, and to devise appropriate responses.¹⁸

When risks are external, such that their occurrence or nonoccurrence is not within the corporation's control, a corporation does not ordinarily have any compliance obligations. For example, a competitor might invent a product that renders the corporation's business model obsolete. Or a key supplier could go bankrupt. Or interest rates could rise. In each case, the corporation might take protective measures in advance—by investing in its own R&D to invent new products before competitors do, by creating redundancies in supply chains, by entering interest rate swap deals to hedge against changes in interest rates, and so on—but those countermeasures will not be undertaken unless they are judged to be cheaper than the risks they are meant to hedge against. Ultimately, every decision to act or to refrain from acting involves risk of some kind.

Compliance pertains to a subset of risks that are best classified as internal to the corporation—those for which the corporation bears direct responsibility. If the law explicitly requires or forbids certain conduct, then the corporation must proceed accordingly and can expect to be held accountable for any violation.¹⁹ For example, because environmental law and regulation governs the disposal of hazardous materials, whether a corporation's employees will improperly dispose of hazardous materials is a compliance risk. The risk can be mitigated through training, oversight, and clear communication.²⁰

¹⁷ See STEPHEN M. BAINBRIDGE, *CORPORATION LAW AND ECONOMICS* 12 (2002); Eugene F. Fama & Michael C. Jensen, *Agency Problems and Residual Claims*, 26 J.L. & ECON. 327, 329 (1983) (“Common stock allows residual risk to be spread across many residual claimants who individually choose the extent to which they bear risk and who can diversify across organizations offering such claims.”).

¹⁸ See Virginia Harper Ho, *Risk-Related Activism: The Business Case for Monitoring Nonfinancial Risk*, 41 J. CORP. L. 647, 663 (2016) (“Risk management is the process of identifying, monitoring, reporting and responding to the range of financial, operational and strategic risks that firms face.”).

¹⁹ See Baer, *supra* note 14, at 958.

²⁰ In exercising their discretion, federal prosecutors “may credit the quality and effectiveness of a risk-based compliance program that devotes appropriate attention and resources to high-risk transactions, even if it fails to prevent an

How a risk is classified will affect the corporation's response to it. The goal of traditional risk management is to optimize risk, not necessarily to eliminate it. Indeed, some risks may be embraced as part of an overall business strategy to maximize expected profits. Investors do not want the corporations in their portfolios to play it too safe.²¹ With regard to compliance risks, however, profits are not a proper part of the calculus.²² There is, for example, no optimal level of illegal disposal of hazardous materials.²³ A manager would not consult investor or customer preferences or market conditions before deciding whether to follow the law.²⁴ If the goal is to ensure that corporations prioritize the problem of climate change, it follows that we should want corporations to treat climate change as a compliance matter rather than fodder for a more general risk-management analysis.²⁵

infraction." U.S. DEP'T OF JUST., CRIM. DIV., EVALUATION OF CORPORATE COMPLIANCE PROGRAMS 3 (updated June 2020) [hereinafter EVALUATION OF CORPORATE COMPLIANCE PROGRAMS], <https://www.justice.gov/criminal-fraud/page/file/937501/download>.

²¹ By contrast, environmental stewardship seeks safety; it focuses on long-term objectives and does not discount the risk of catastrophic harms. See DOUGLAS A. KYSAR, REGULATING FROM NOWHERE: ENVIRONMENTAL LAW AND THE SEARCH FOR OBJECTIVITY 150–75 (defending precautionary principle that gives weight to the interests of future generations of human beings); Joseph Mazor, *Liberal Justice, Future People, and Natural Resource Conservation*, 38 PHIL. & PUB. AFFS. 380 (Sept. 2010) (contending that sustainability goals should encompass the needs of those who have not yet been born).

²² Commentators have pointed out that some businesses, like Uber, take calculated risks with legal noncompliance in order to leverage their popularity to force regulatory changes. See Elizabeth Pollman & Jordan M. Barry, *Regulatory Entrepreneurship*, 90 S. CAL. L. REV. 383 (2017). Even if certain startups deliberately push the boundaries of the law, this simply underscores the extent to which compliance with the law is a fundamental norm.

²³ If viewed purely as a matter of risk management, corporate managers might calculate the risk of getting caught and the severity of the penalty before deciding whether to obey the law.

²⁴ See, e.g., *In re Massey Energy Co. Derivative & Class Action Litig.*, No. 5430, 2011 WL 2176479, at *20 (Del. Ch. May 31, 2011) ("Delaware law does not charter law breakers."); *Metro Commc'n Corp. BVI v. Advanced Mobilecomm Techs. Inc.*, 854 A.2d 121, 131 (Del. Ch. 2004) ("Under Delaware law, a fiduciary may not choose to manage an entity in an illegal fashion, even if the fiduciary believes that the illegal activity will result in profits for the entity.").

²⁵ See *infra* Section III.C.

But there is a potential problem. The classic distinction between risk management and compliance creates a divide, leaving the compliance function devoid of a cohesive strategy apart from what is needed to detect and stamp out rule violations. The respective roles for corporate risk management and compliance have been described as follows: “Risk management identifies, assesses, and analyzes risks and seeks to mitigate them whereas compliance focuses on meeting established rules, regulations, and standards to protect their organization from regulatory and legal violations that could give rise to serious liabilities.”²⁶ According to this view, compliance “rarely translates into evaluating the financial, operational, and clinical risks of new business propositions, partnerships, and lines of business.”²⁷ In particular, compliance does not play a role in “identifying potential risks in advance that could include . . . *natural disasters*.”²⁸

Risk management and compliance might be understood as “complementary” processes: “Compliance usually stops with verification that a rule has been followed to avoid risks, whereas risk management must be anticipatory, flexible, and proactive.”²⁹ However, a strict separation of risk management and compliance diminishes the effectiveness of both. Without a robust framework for implementation, risk assessment can become a passive exercise in prediction without a sense of ownership of identified problems. Equally, without an appreciation of the full context, compliance can amount to mere rule following—safeguarding the trees but missing the forest.

To the extent this account of corporate compliance as rule following is accurate, it is understandable why some commentators would view compliance as too rigid to guide a corporation’s climate change response:

[C]ompliance officers look to the law in order to fulfill obligations and identify elements of violations, without much leeway for company-by-company variation. . . . Bound to legal definitions of misconduct, compliance is, by necessity, backwards-looking,

²⁶ Richard P. Kusserow, *Understanding the Difference Between Compliance and Risk Management*, 22 J. HEALTH CARE COMPLIANCE, no. 3, 2020, at 49.

²⁷ *Id.* at 50.

²⁸ *Id.* (emphasis added). If so, the relevant decision-making might be integrated into other business units, not a compliance department.

²⁹ *Id.*

reflecting conceptions of harm as they stood at the time of enactment.³⁰

Until recently, skepticism concerning the capacity of corporate compliance to address climate change would have been warranted. Those tasked with compliance had little voice in corporate affairs. Certainly, compliance officers would not have been expected to take part in the formulation of corporate strategy.³¹ In scale and complexity, climate change is a problem that vastly exceeds the capacities of a narrow, rulebound approach to compliance.³² Nor would standard risk management provide a viable alternative—once classified as an external, non-compliance risk, climate change presents itself as a problem to be dealt with only to the extent necessary to maintain the corporation’s competitive position. However, the urgency of the moment requires corporations to take direct responsibility for mitigating climate change.³³ What is needed, therefore, is a hybrid approach that blends the strategic aspect of risk management with the problem-solving mindset of compliance. As discussed in the next section, modern-day compliance offers the best of both worlds.

B. *A Risk-Based Approach to Compliance*

The limited definition of compliance is fast becoming outdated and ignores the extent to which compliance is now understood to include

³⁰ Gadinis & Miazad, *supra* note 6, at 1431.

³¹ See Miller, *supra* note 11, at 437 (“Twenty years ago . . . [c]ompliance officers tended to work in cubicles and performed a sort of glorified bookkeeping task, making sure that forms were filled out and boxes checked. But they did not play a strategic role in the management of the enterprise.”).

³² See Light, *supra* note 6, at 148 (arguing that “environmental law, which tends to focus on controlling, reducing, or reporting significant amounts of pollution emitted from pipes and smokestacks, . . . cannot as easily induce the needed small changes in the behavior of many individuals and firms”).

³³ See Sarah Kaplan, *Climate Change Has Gotten Deadly: It Will Get Worse*, WASH. POST, July 3, 2021:

If we continue to burn fossil fuels at the current rate, studies suggest, the Earth could be 3 to 4 degrees Celsius hotter by the end of the century. The Arctic will be free of ice in summertime. Hundreds of millions of people will suffer from food shortages and extreme drought. Huge numbers of species will be driven to extinction. Some regions will become so hot and disaster-prone they are uninhabitable.

forward-looking strategic considerations. As one commentator observed, “the job of compliance has increasingly moved away from a mechanical approach to a risk-based approach.”³⁴ To reduce risk, compliance programs seek to “deter wrongdoing by generating social norms that champion law-abiding behavior.”³⁵ Compliance departments not only investigate possible violations of law, but they also set policy.³⁶ Compliance policies are designed to create “an ethical culture that asks: ‘What is the right and ethical thing to do?’, an inquiry that permeates daily decisions.”³⁷ In their scope, modern “compliance programs go far beyond what is needed to avoid lawbreaking”³⁸ In short, concerns about the narrowness of compliance no longer hold true.

Although a full account of the evolution of compliance is beyond the scope of this Article,³⁹ one commentator observes that “Congress ushered in the modern corporate-compliance movement by enacting the Foreign Corrupt Practices Act (‘FCPA’).”⁴⁰ Suffice to say that corporate boards

³⁴ Miller, *supra* note 11, at 438.

³⁵ Baer, *supra* note 14, at 960 (observing that “[n]orm-based compliance programs . . . permit organizations to discipline employees for violations that transgress social norms, but otherwise fall just short of legal violations”); U.S. SENT’G GUIDELINES MANUAL § 882.1(a)(2) (U.S. SENT’G COMM’N 2018) (mandating that corporations “promote an organizational culture that encourages ethical conduct and a commitment to compliance with the law”).

³⁶ Baer, *supra* note 14, at 960 (“Compliance personnel frequently write and revise corporate-wide codes of business conduct.”).

³⁷ Maurice E. Stucke, *In Search of Effective Ethics & Compliance Programs*, 39 J. CORP. L. 769, 826 (2014). By contrast, “firms under an extrinsic approach, . . . demand to know what is expected of them from the government, namely what specific steps they must undertake to meet the regulator’s narrow legalistic requirements of effective compliance.” *Id.* Professor Stucke observes that this “is not a recipe for success,” which is why regulators now expect a culture of compliance. *Id.* Admittedly, there is an “uneasy boundary” between corporate ethics and compliance, Miller, *supra* note 15, at 18, but some overlap is inescapable because “notions of a culture of compliance and tone at the topic cannot be strictly limited to formal legal requirements.” *Id.*

³⁸ Claire A. Hill, *Caremark as Soft Law*, 90 TEMP. L. REV. 681, 682 (2018).

³⁹ For a helpful historical discussion of Delaware law concerning board fiduciary duties and compliance, see Elizabeth Pollman, *Corporate Oversight and Disobedience*, 72 VAND. L. REV. 2013, 2021–25 (2019).

⁴⁰ Baer, *supra* note 14, at 962. The FCPA was the brainchild of Stanley Sporkin, then-Director of the SEC’s Division of Enforcement. His insight was that Congress could deter bribery, not only by prohibiting it directly, but by

have learned that a robust compliance function is essential in order to stay on the right side of federal prosecutors and to meet their own fiduciary duties of care, good faith, and loyalty.⁴¹ Consistent with the expanded role of compliance within the corporation, compliance officers have achieved new status and respect—“the role of Chief Compliance Officer . . . is relatively new in the evolution of Corporate Governance.”⁴² The Chief Compliance Officer typically reports directly to the CEO “and sometimes to a board committee, such as the Board Audit Committee, Risk Committee, or Compliance Committee.”⁴³

As a case in point, consider the role of compliance in U.S. financial institutions. The U.S. Federal Reserve Board of Governors has stated that it expects “firm-wide compliance risk management” which encompasses “the processes established to manage compliance risk across an entire organization, both within and across business lines, support units, legal entities, and jurisdictions of operation.”⁴⁴ The Board of Governors has explained that “compliance risk management benefits from an aggregate

requiring corporations to maintain accurate books and records. See Stanley Sporkin, *The Worldwide Banning of Schmiergeld: A Look at the Foreign Corrupt Practices Act on its Twentieth Birthday*, 18 NW. J. INT’L L. & BUS. 269, 274 (1997) (“I theorized that requiring the disclosure of all bribes paid would, in effect, foreclose that activity.”).

⁴¹ See EVALUATION OF CORPORATE COMPLIANCE PROGRAMS, *supra* note 20; *In re Caremark Int’l Inc. Derivative Litig.*, 698 A.2d 959 (Del. Ch. 1996); *Stone ex rel. AmSouth Bancorporation v. Ritter*, 911 A.2d 362, 369, 373 (Del. 2006) (adopting *Caremark*); Hill, *supra* note 38, at 689 (“Government regulators take into consideration whether a company has a robust compliance program, one which goes beyond a narrow focus on not breaking the law, when determining how to proceed when illegality is suspected.”).

⁴² John C. Krenitsky, *Defining the Chief Compliance Officer Role*, 6 AM. U. BUS. L. REV. 303, 303 (2017); Diana E. Murphy, *The Federal Sentencing Guidelines for Organizations: A Decade of Promoting Compliance and Ethics*, 87 IOWA L. REV. 697, 710 (2002) (noting creation of “an entirely new job description: the Ethics and Compliance Officer”).

⁴³ Miller, *supra* note 11, at 438.

⁴⁴ BD. GOVERNORS FED. RESRV. SYS., SR 08-8/CA 08-11, COMPLIANCE RISK MANAGEMENT PROGRAMS AND OVERSIGHT AT LARGE BANKING ORGANIZATIONS WITH COMPLEX COMPLIANCE PROFILES (Oct. 16, 2008) (rev. Feb. 26, 2021), <https://www.federalreserve.gov/Boarddocs/srletters/2008/sr0808.htm> (“Organizations supervised by the Federal Reserve, regardless of size and complexity, should have effective compliance risk management programs that are appropriately tailored to the organizations’ risk profiles.”).

view of the organization's compliance risk exposure and an integrated approach to managing those risks."⁴⁵ To that end, "[t]he processes established for managing compliance risk on a firmwide basis should be formalized in a compliance *program* that establishes the framework for identifying, assessing, controlling, measuring, monitoring, and reporting compliance risks across the organization, and for providing compliance training throughout the organization."⁴⁶ Once established, a "compliance risk management program should be documented in the form of compliance policies and procedures and compliance risk management standards."⁴⁷ A compliance program built to these specifications has the capacity to participate as a full partner in corporate decision-making.

Further solidifying the emergence of compliance as a major corporate governance topic, the American Law Institute is finalizing a project entitled *Principles of the Law: Compliance and Enforcement for Organizations* (ALI Principles). This document, nearly 500 pages in its current iteration, provides a full statement of the new corporate compliance and how it differs, not only from earlier bean-counting approaches to compliance, but also from more traditional approaches to risk management. An earlier version of the ALI Principles included "Risk Management" in its title, and the drafters removed that language "to make clear that our treatment of risk management was focused exclusively on the compliance function."⁴⁸

As the drafters of the ALI Principles wished to clarify, compliance risks are a distinct subset of the risks that a corporation faces. Compliance is about accountability to legal, political, and ethical standards; by contrast, the lodestar of risk management is profitability. The ALI drafters explain that there is a difference between accepting risk in general and tolerating a risk of non-compliance:

As to risks other than compliance risks, an organization may conclude that given its risk appetite, risk tolerance, and risk capacity, and the particular risks and aggregate level of risk it faces, it should take on more risk. However, the organization may not choose to take on more compliance risk . . . nor may an

⁴⁵ *Id.*

⁴⁶ *Id.* (emphasis in original).

⁴⁷ *Id.*

⁴⁸ Richard L. Revesz, *Foreward*, in *PRINCIPLES OF THE LAW OF COMPLIANCE AND ENFORCEMENT FOR ORGANIZATIONS*, at xxi (AM. L. INST. 2021).

organization decide that a compliance risk event that has come to pass (a compliance failure) is within its risk tolerance.⁴⁹

Consequently, an important threshold consideration is whether a particular risk should be assigned to the compliance function or handled as part of a broader strategic assessment of risk.

For risks that fall within the scope of compliance, the ALI Principles, which are partly descriptive and partly precatory, represent best practices for business organizations. These recommended best practices include, for example, implementing controls, developing a risk-response plan, and conducting internal investigations of possible violations.⁵⁰ To ensure that problems receive immediate attention, the ALI Principles further state that “[a]n organization’s risk-management program and risk culture should encourage its employees at all levels to report on matters relevant to its monitoring of risk, including compliance risk, and otherwise participate appropriately, as determined by the organization, in its risk monitoring.”⁵¹ Finally, the ALI Principles include “best practices to govern discretionary enforcement decisions in state and federal prosecutions and civil and regulatory enforcement actions arising from knowing or intentional misconduct by organizations.”⁵² In sum, corporate compliance programs today are expected to be proactive and thorough. In the next section, we argue that the problem of climate change is well suited to a compliance framework.

III. THE CASE FOR CLIMATE CHANGE COMPLIANCE

Climate change is already disrupting global weather patterns. For example, as this Article was being prepared for submission, the Pacific Northwest region experienced a weeks-long spell of unprecedented high temperatures. According to news reports, public officials were “investigating more than 800 deaths potentially linked to the punishing

⁴⁹ *Id.* at pt. 2, ch. 4, sec. 4.01(k) at p. 9.

⁵⁰ *Id.* at pt. 2, ch. 4, sec. 4.10, cmt. c, at p. 61. The drafters observe that “[a]n organization can minimize its exposure to certain legal or regulatory perils by conducting repeated or additional testing of a product or process, adding requirements for approvals or oversight, or requiring that other safeguards be in place before it selects contracting partners, renders or accepts performance, or receives or makes payments.” *Id.*

⁵¹ *Id.* at pt. 2, ch. 4, sec. 4.11(d).

⁵² *Id.* Reporters’ Memorandum, Apr. 7, 2021, at xxiii.

heat.”⁵³ During the same time period, unusual and dangerous weather conditions extended far beyond the Pacific Northwest:

The heat dome was just one of a barrage of climate catastrophes that struck the world in recent weeks. Western wildfires are off to a scorching start, with firefighters actively battling 44 large blazes that have burned nearly 700,000 acres. Parts of Florida and the Caribbean are bracing for landfall of Hurricane Elsa, the Atlantic’s fifth named storm in what is one of the most active starts to hurricane season on record. Nearly half a million people in Madagascar are at risk of starvation as the country grapples with dust storms, locusts and its worst drought in decades. In Verkhoyansk, Siberia—usually one of the coldest inhabited places on the planet—the land surface temperature was 118 degrees.⁵⁴

These crises should not come as a surprise; there is a strong scientific consensus that human beings have increased global temperatures by about two degrees Fahrenheit since the dawn of the Industrial era and that this incremental rise in temperature “has led to disproportionately frequent and severe natural disasters.”⁵⁵ As the chief scientist for the Nature Conservancy explained, “Climate change has loaded the weather dice against us.”⁵⁶

While it is not possible to state with certainty how greenhouse gas emissions will affect the planet in the future, “[w]e can be highly confident about the existence of human-caused climate change and the likelihood that it will have serious effects.”⁵⁷ Most scientists have concluded that reducing global greenhouse gas emissions is the only way to mitigate

⁵³ Kaplan, *supra* note 33; Bob Berwyn, *A Week After the Pacific Northwest Heat Wave, Study Shows it Was “Almost Impossible” Without Global Warming*, INSIDE CLIMATE NEWS (July 7, 2021), <https://insideclimatenews.org/news/07072021/pacific-northwest-heat-wave-attribution-study-climate-change/> (same).

⁵⁴ Kaplan, *supra* note 33.

⁵⁵ *Id.*

⁵⁶ *Id.* (quoting Katharine Hayhoe) (internal quotation marks omitted).

⁵⁷ Daniel A. Farber, *Uncertainty*, 99 GEO. L.J. 901, 938 (2011) (noting “strong residual uncertainty . . . about the scale of climate change impacts, both globally and regionally” and arguing that this uncertainty calls for even greater precautions against worst-case outcomes).

climate change.⁵⁸ Avoiding the worst-case outcomes “will require leveling off greenhouse gas emissions in the near term and reductions of 60 to 80 percent from present levels by 2050.”⁵⁹ To avoid crossing a line of no return, such measures should be implemented immediately.⁶⁰

The scale of climate change vastly exceeds any individual corporation’s activities.⁶¹ Collectively, though, corporations account for much of the carbon usage that drives climate change. According to one report, 100 fossil fuel companies alone produce 71% of global emissions.⁶²

⁵⁸ See, e.g., Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 2303 U.N.T.S. 162, <http://unfccc.int/resource/docs/convkp/kpeng.pdf>. But some commentators hold out hope that alternative technologies can abate global warming without the need for massive restructuring of our carbon-based economy. See Alan Carlin, *Global Climate Change Control: Is there a Better Strategy than Reducing Greenhouse Gas Emissions?*, 155 U. PA. L. REV. 1401, 1404 (2007) (“One of the major difficulties in solving climate change problems results from the fact that no one has really leveled with the public as to how difficult it would be to achieve the goals that the advocates of emissions control believe are necessary.”). Without disputing the point that transitioning from a carbon-based economy will be extraordinarily difficult, we observe that technological innovations over the past 15 years have radically reduced the cost of alternative fuels. For example, electric cars that were too impractical and expensive to take seriously when Professor Carlin’s article was published appear likely to take over our roads in the next several years. One of us has driven an electric car.

⁵⁹ Michael P. Vandenbergh et al., *Individual Carbon Emissions: The Low-Hanging Fruit*, 55 UCLA L. REV. 1701, 1702 (2008).

⁶⁰ See USGCRP, *supra* note 1, at 5 (“While some climate changes will occur slowly and relatively gradually, others could be rapid and dramatic, leading to unexpected breaking points in natural and social systems.”).

⁶¹ See J.B. Ruhl & James Salzman, *Climate Change, Dead Zones, and Massive Problems in the Administrative State: A Guide for Whittling Away*, 98 CALIF. L. REV. 59, 64 (2010) (“Climate change is as big and unwieldy a problem as they come.”).

⁶² See PAUL GRIFFIN, THE CARBON MAJORS DATABASE: CDP CARBON MAJORS REPORT (July 2017) (focused on “fossil fuel producers”), <https://b8f65cb373b1b7b15feb-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/002/327/original/Carbon-Majors-Report-2017.pdf?1499691240>; Tess Riley, *Just 100 Companies Responsible for 71% of Global Emissions, Study Says*, GUARDIAN (July 10, 2017), <https://www.theguardian.com/sustainable-business/2017/jul/10/100-fossil-fuel-companies-investors-responsible-71-global-emissions-cdp-study-climate-change>.

Staving off the worst impacts of climate change therefore requires corporations to take concerted action to reduce their carbon footprint and to mitigate disaster harm. Unfortunately, “[f]or-profit corporations are not designed to solve a long-term, planet-wide, collective action problem like climate change.”⁶³ Yet, in the absence of a Green New Deal or other environmental legislation adequate to the task, the reality is that there is no satisfactory alternative to reliance on corporations.⁶⁴ This section argues that a compliance-based approach offers the best hope of spurring corporations to commit to climate change mitigation efforts.

A. *The Limits of Risk Management*

Climate change mitigation is not necessarily incompatible with a traditional risk management perspective. Any list of strategic risks confronting a corporation today would surely include climate change. As a matter of risk management, therefore, addressing climate change may be advisable, especially when the costs of inaction appear significant.

Corporations can sometimes justify climate change mitigation measures solely in reference to a for-profit motivation:

A firm that has more employees than it needs in its shipping department is operationally ineffective; its managers are wasting

⁶³ Brett McDonnell et al., *Green Boardrooms?*, 53 CONN. L. REV. 335, 399 (2021). If one corporation voluntarily makes itself less profitable by addressing externalities that the law permits it to ignore, other less squeamish competitors will rush to take advantage of the opportunity. See Michael C. Jensen, *Value Maximization, Stakeholder Theory, and the Corporate Objective Function*, 14 J. APP. CORP. FIN., no. 4, 2001, at 8, 16 (contending that well-meaning corporations “will be eliminated by competitors that choose not to be so civic minded”).

⁶⁴ See McDonnell et al., *supra* note 63, at 399 (“Those advocating for deep reform of corporate law can flip the script on what to infer from the limited results of corporation-focused activism. Given the ongoing failure of governments to seriously respond to climate change, the urgency of addressing climate change, and the central role that corporations play in the economy, if corporations as currently constituted are not up to the task, we need to reconstitute them.”). This task could involve questioning existing assumptions about corporate governance. See, e.g., GRANT M. HAYDEN & MATTHEW T. BODIE, *RECONSTRUCTING THE CORPORATION: FROM SHAREHOLDER PRIMACY TO SHARED GOVERNANCE*, at xi (2020) (“Building on eighty years of research into the nature of the firm, we derive a governance model based on joint production, in which the participants of the firm have a right to participate in the governance of the firm.”).

resources and creating a drag on performance. In the same way, a firm that produces excess emissions in its shipping operations is also operationally ineffective—it is wasting resources and incurring unnecessary costs that are certain to rise. Implementing best practices in managing climate-related costs is the minimum required to remain competitive.⁶⁵

As the quoted language illustrates, a corporation's response to climate change need not be motivated by ethical concerns. Rather, firing unneeded employees and controlling carbon emissions can be seen as ethically equivalent decisions, both presented as means to achieve the goal of operating the corporation on the most profitable basis permitted by law.

From a risk management perspective, opportunities for profit could also weigh into the decision-making process and support climate mitigation. By taking the initiative and then publicizing their climate change activities, corporations can gain a competitive advantage over rivals that are not willing to make similar commitments. For example, the UK grocery store Marks & Spencer attempted to outdo other supermarket chains by aligning itself with customers who are concerned about climate change:

Marks & Spencer announced that it would go “carbon neutral,” coming out with a 100-point action plan on climate change and the environment. Conveying a dramatic sense of urgency, company CEO Stuart Rose observed, “We are calling this ‘Plan A’ because there is no ‘Plan B.’”⁶⁶

An approving commentator described Marks & Spencer's announcement as a business ploy, attributable in large part to competition for market share.⁶⁷

If profit maximization always lined up with climate change goals, the distinction between risk management and compliance would not matter.

⁶⁵ Michael E. Porter & Forest L. Reinhardt, *Grist: A Strategic Approach to Climate*, HARV. BUS. REV. (Oct. 2007), <https://hbr.org/2007/10/climate-business-business-climate%5D>.

⁶⁶ Daniel C. Esty, *Transparency: What Stakeholders Demand*, HARV. BUS. REV. (Oct. 2007), <https://hbr.org/2007/10/climate-business-business-climate%5D>.

⁶⁷ *Id.* (observing that “smart management of environmental issues has become a way to positively shape brand image and attract new customers”).

Regrettably, this is wishful thinking. The pressures of a competitive marketplace do not always reward climate change mitigation.⁶⁸ Therefore, unless corporate managers treat climate change as a compliance obligation, they may conclude that it is more efficient to absorb the costs of climate change later, should a disaster occur.⁶⁹ Notwithstanding the overwhelming case for adopting sustainable business practices as a matter of environmental stewardship, the costs an individual corporation would undergo to abandon carbon-intensive production processes may not be worth it.⁷⁰

Perhaps, brand value can compensate for climate change mitigation costs, but that will not always be true, especially for non-consumer-facing businesses that do not depend on public goodwill.⁷¹ Also, while many investors and consumers have indicated that sustainability is important, it is unclear whether enough of them will accept higher prices and other inconvenience as the price for a better future.⁷² Thus, CEOs and boards viewing climate change from a standard risk-management perspective might question whether there is a mandate for profit-reducing measures

⁶⁸ See Light, *supra* note 6, at 204 (pointing out that “[e]nvironmental values could be outweighed by the balance of other factors, or even a strong showing on one factor, when competing values point in a different direction”).

⁶⁹ See Porter & Reinhart, *supra* note 65 (arguing that corporations should evaluate their vulnerability to climate change risks and then “decide which to reduce through redesigning operations, which to transfer to others through insurance or hedging contracts, and which to bear”). The authors distinguish their recommended risk-management practices from fuzzier notions of corporate social responsibility, and the corporation’s choices are presumed to turn on “operational effectiveness” rather than any inherent objective to combat global warming. *Id.*

⁷⁰ See Gadinis & Miazad, *supra* note 6, at 1425 (“Directors and officers can opt for any . . . strategy they choose, even some that are in direct conflict with ESG goals.”).

⁷¹ See *id.* (observing that public pressure will not always matter because “not all ESG initiatives are directly visible to consumers, and there are many industries that are not consumer-facing”) (citing S&P GLOB. & MCSI, GLOBAL INDUS. CLASSIFICATION STANDARD 6 (2018), https://www.spglobal.com/marketintelligence/en/documents/112727-gics-mapbook_2018_v3_letter_digitalspreads.pdf).

⁷² See Joseph C. Sternberg, Opinion, *The Climate-Change Agenda Goes Out with a Bang*, WALL ST. J., July 15, 2021 (“[I]n Japan, climate-minded shareholders have just wrapped up a disastrous (for them) season of annual shareholder meetings. Resolutions codifying aggressive corporate carbon targets were defeated at all three companies where activists proposed them—Mitsubishi UFJ, Sumitomo and Kansai Electric Power.”).

and take the narrowly rational view that either others will solve the problem of climate change, or it will not be solved—in the meantime, the profits earned by the corporation provide a concentrated benefit, whereas the value of contributions to global wellbeing are dispersed widely.⁷³

In sum, the concept of risk management cannot solve the collective action problems generated by climate change.⁷⁴ As one commentator explains,

Climate change threatens to be the externality that ate the world. Within a year of its release, carbon dioxide is dispersed uniformly through the earth's atmosphere. Whoever uses energy derived from fossil fuels gets the full benefit of that power while evenly dividing the atmospheric harm with somewhat more than 6.8 billion others. That is a ratio of benefit to harm all but certain to induce overindulgence.⁷⁵

Or, put slightly differently, climate change is the “mother of all externalities.”⁷⁶ A corporation *could* voluntarily set targets to reduce carbon emissions beyond what the law mandates, if doing so seemed advisable as a matter of risk management, but sustainability is not itself a legal obligation of the corporate form.⁷⁷ By contrast, once placed within a

⁷³ Nation states can make the same self-interested calculation. See Jody Freeman & Andrew Guzman, *Climate Change and U.S. Interests*, 109 COLUM. L. REV. 1531, 1534 (2009) (critiquing as shortsighted arguments that “climate change is a collective action problem, and the best American policy would be to free ride on the efforts of more significantly affected states”). Apart from moral considerations for action, those who are capable of mitigating climate change should bear in mind the “absolute” costs involved, not just whether they would be likely to fare better than other more vulnerable populations. *Id.* at 1539.

⁷⁴ For a classic explanation of collective action as a challenge for public policy, see MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* (1965).

⁷⁵ Jedediah Purdy, *The Politics of Nature: Climate Change, Environmental Law, and Democracy*, 119 YALE L.J. 1122, 1132 (2010). Moreover, “the benefits of mitigating climate change will accrue to future generations while the living bear the costs.” *Id.* at 1134.

⁷⁶ Richard S. J. Tol, *The Economic Effects of Climate Change*, 23 J. ECON. PERSP., no. 2, 2009, at 29.

⁷⁷ One direction for law reform efforts is to introduce such a requirement. See, e.g., Light, *supra* note 4, at 149 (“If firm managers in ordinary corporations

compliance framework, the harms caused by climate change cannot be dismissed as a tolerable byproduct of corporate activity.

Ideally, lawmakers would act to align the interests of individual corporations and society, setting a clear timetable for decarbonization.⁷⁸ Whether styled as a Green New Deal or couched in more neutral language, what is needed is a comprehensive regulatory regime that can facilitate the transition of the U.S. and global economies.⁷⁹ But in the absence of clear legal rules, corporations must find some way to act collectively for the common good. The dilemma each corporation confronts is that other corporations may fail to accept their shared obligation and may act in individually rational but collectively irrational ways.⁸⁰ Risk management does not provide a solution to this problem. If anything, risk management encourages defection because it leaves each corporation to navigate risks for its own individual benefit in a world of zero-sum market competition.

B. The Limits of CSR and ESG

CSR and ESG (hereinafter, ESG collectively for ease of reference) appear to be better candidates for organizing a corporation's climate change response because they are not tied so tightly to shareholder

were affirmatively required to consider environmental values and goals alongside profits, corporate law could alter their calculus in deciding whether to reduce their environmental footprints or adopt private environmental governance.”).

⁷⁸ See Richard J. Lazarus, *Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future*, 94 CORNELL L. REV. 1153, 1155–56 (2009) (“To reduce the nation’s greenhouse gas emissions from 1990 levels by as much as 60 percent to 80 percent by 2050 and then maintain that emissions level throughout the twenty-first century will require Congress to craft an ambitious mix of regulatory programs and economic incentives. Those programs must fundamentally change business operations in virtually every economic sector as well as individual behavior in many aspects of daily life.”).

⁷⁹ See Lisa Benjamin, *The Road to Paris Runs Through Delaware: Climate Litigation and Directors’ Duties*, 2020 UTAH L. REV. 313, 346 (stating that the Green New Deal “aims for net-zero emissions through decarbonizing the electricity grid, transportation systems, and industry”).

⁸⁰ To the extent, meeting climate change goals is also individually rational for a corporation, there should be no impediment to action, but “while it may sometimes be possible to square the circle and find shared value, one must at least acknowledge that this is not always the case.” Light, *supra* note 4, at 204.

profits.⁸¹ Unlike corporate risk management, a commitment to ESG can readily accommodate the interests of non-shareholder stakeholders. Indeed, ESG is meant to ensure that those considerations receive appropriate weight in corporate decision-making. For this reason, ESG may be better suited to addressing a problem as all-encompassing as climate change. There are, however, two problems that limit the ability of ESG to serve as the primary framework for climate change mitigation.

First, because ESG is not part of the formal structure of corporate law or tied to specific external laws or regulations, ESG commitments are purely voluntary:

ESG represents an attempt by companies to self-regulate their conduct. Terms like “corporate sustainability,” “environmental, social, and governance” issues, and “triple bottom line” have been used widely, and often interchangeably with preexisting concepts like “corporate social responsibility.” Broadly speaking, these terms refer to voluntary actions taken by a company to manage its own environmental and social impacts. In this way, they are distinct from actions taken in response to a legal or contractual obligation.⁸²

Corporate ESG commitments have no legal force or effect and are, therefore, impermanent. Should previous commitments concerning climate change prove to be inconvenient, corporate managers can walk

⁸¹ In treating CSR and ESG as a single concept, we acknowledge that “[t]he boundaries of these terms . . . are not precise—sometimes CSR and ESG are used interchangeably, and although ESG is frequently used in the context of risk management and risk-adjusted returns, it is also used sometimes to refer to social benefits.” Elizabeth Pollman, *Corporate Social Responsibility, ESG, and Compliance*, in CAMBRIDGE HANDBOOK OF COMPLIANCE 8 (D. Daniel Sokol & Benjamin van Rooij eds., forthcoming 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3479723) [hereinafter, Pollman, *Corporate Social Responsibility*]; Harper Ho, *supra* note 18, at 651 (“The term ‘ESG’ is now widely used by institutional investors and investment professionals to refer not only to sustainability measures or to environmental, social, or governance practices specifically, but to all nonfinancial fundamentals that can impact firms’ financial performance, such as corporate governance, labor and employment standards, human resource management, and environmental practices.”).

⁸² Gadinis & Miazad, *supra* note 6, at 1415–16.

away from them.⁸³ Indeed, corporations may shy away from making commitments in the first place: “The intractability of problems like climate change makes ESG commitments sound like hollow promises engineered by public relations teams to claim the allure of good citizenship.”⁸⁴ The absence of an underlying legal obligation limits ESG’s effectiveness.⁸⁵

Second, assuming that corporate managers would persevere in voluntary efforts to mitigate climate change, an ESG approach is in tension with the interests of shareholders in earning profits on their investment.⁸⁶ Thus, if taken beyond certain limits, which may be clear only in hindsight, efforts to address climate change as a matter of ESG are subject to challenge in court and may be ruled an illegitimate use of corporate resources.⁸⁷ The business judgment rule gives corporate managers

⁸³ See Sternberg, *supra* note 72 (reporting “that Japan’s Government Pension Investment Fund, the world’s largest with around \$1.6 trillion under management, is abandoning trendy ESG investing.”). According to one of the fund’s senior directors, “[t]he strategy was a financial loser, and ‘we can’t sacrifice returns for the sake of buying environmental names or ESG names.’” *Id.*

⁸⁴ Gadinis & Miazad, *supra* note 6, at 1419.

⁸⁵ *Id.* (“Public statements of support by key players, like Larry Fink or the Business Roundtable, express vague allegiance to universal values, but do not commit the author to any specific actions, nor do they have any legal implications.”).

⁸⁶ See Judd F. Sneirson, *Green Is Good: Sustainability, Profitability, and a New Paradigm for Corporate Governance*, 94 IOWA L. REV. 987, 989 (2009) (“The problem is that ‘green’ or ‘sustainable’ business practices can sometimes entail profit sacrifices, particularly in the short term. A conflict thus arises with the commonly held view that corporate directors and officers must strive to maximize shareholder wealth and affirmatively neglect other corporate constituencies like labor, creditors, suppliers, customers, the public, and the environment.”); Roberta Romano, *Metapolitics and Corporate Law Reform*, 36 STAN. L. REV. 923, 961 (1984) (“[P]rofit maximization is the only goal for which we can at least theoretically posit shareholder unanimity.”).

⁸⁷ See *eBay Domestic Holdings Inc. v. Newmark*, 16 A.3d 1, 25–26 (Del. Ch. 2010) (holding that eBay’s controlling shareholders’ refusal to monetize eBay’s online classified advertisements violated their duty of loyalty and was not an appropriate exercise of discretion). For criticism of the court’s decision, see Benjamin Means, *The Value of Insider Control*, 60 WM. & MARY L. REV. 891, 934 (2019) (“To identify profits as the sole legitimate objective of the corporate form is to endorse an impoverished view of what corporations can accomplish.”). Nevertheless, whatever the merits of a theory of corporate law that would permit those in control of the corporation to act as “stewards for the benefit of all

discretion to make decisions for the corporation, but it does so because those managers owe a fiduciary duty to prioritize the interests of the corporation.⁸⁸ Mitigating climate change will require significant upfront costs. If presented as part of a corporation's ESG initiatives, such costs will be vulnerable to shareholder objections.⁸⁹

Advocates of ESG might respond that, in the long term, climate change mitigation *is* in the best interests of shareholders, not only as investors but also as human beings who do not want to destroy the planet they and their children and grandchildren must inhabit.⁹⁰ Or, perhaps more to the point, climate change mitigation is necessary for a corporation to remain viable and, therefore, profitable.⁹¹ Discounted to present value, however, it will not always be clear that those future benefits justify the losses incurred. The business judgment rule leaves ample room for corporate managers to make temporal calculations,⁹² but there are limits. The unprecedented scale of mitigation efforts required to address climate change is likely to push those limits.⁹³

stakeholders," *id.*, the reality is that many courts will continue to adhere to "a shareholder-maximization model of corporate governance." *Id.*

⁸⁸ See Mark J. Roe, *The Shareholder Wealth Maximization Norm and Industrial Organization*, 149 U. PA. L. REV. 2063, 2065 (2001) ("Shareholder wealth maximization is usually accepted as the appropriate goal in American business circles The utilitarian justification is that this preference is the price paid for strong capital markets, and allocative efficiency"); Henry Hansmann & Reinier Kraakman, *The End of History for Corporate Law*, 89 GEO. L.J. 439, 440 (2001) (same).

⁸⁹ See Gadinis & Miazad, *supra* note 6, at 1416 ("Whether doing what is best for shareholders would have grave social implications is not a relevant consideration").

⁹⁰ See Oliver Hart & Luigi Zingales, *Companies Should Maximize Shareholder Welfare Not Market Value*, 2 J.L. FIN. & ACCT. 247 (2017).

⁹¹ See *id.* at 1424 ("If boards and managers choose the sustainable option because they believe it is also going to lead to higher profits, then there is no clash with shareholder primacy.").

⁹² See, e.g., Margaret M. Blair & Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 VA. L. REV. 247, 299–305 (1999) (arguing that the business judgment rule permits corporate managers to prioritize longer-term interests).

⁹³ Nestlé's CEO spoke frankly about the challenge of maintaining profitability while also meeting the company's public commitment to "to halve our greenhouse gas emissions by 2030 and to achieve net-zero carbon emissions by 2050." Mark Schneider, *Nestlé CEO: We don't have to sacrifice shareholders to fight climate change*, FORTUNE (Feb. 17, 2021),

Another possible response to the profit-maximization objection is to reframe ESG as a way of identifying social risks that would otherwise be missed by a shareholder-centric corporate governance approach:

We argue that ESG serves shareholders' interests, not because of its upside potential to increase profits, but because it helps companies identify and manage social risks to their business. . . . Core ESG issues such as privacy, climate change, or diversity, though arising out of sweeping technological advances or large-scale societal changes, also implicate individual company decisions.⁹⁴

The argument presumes that compliance cannot accomplish the same objectives because it is primarily backward looking and focused on legal risks.⁹⁵ Thus, advocates of an ESG approach assert that compliance does not encompass the full range of issues that must be addressed for a corporation to operate sustainably.⁹⁶ Yet modern compliance programs are not limited to the proverbial letter of the law and seek to integrate compliance with broader questions of corporate strategy and ethics.⁹⁷

<https://fortune.com/2021/02/17/fighting-climate-change-business-shareholders-investments-nestle-ceo-mark-schneider/> (“The upfront costs of seeking greenhouse-gas neutrality are no different than other types of forward-looking expenditures, such as R&D spending. Without them, a business will wither. This does not mean businesses can invest heedlessly. The size of the spend must be carefully calibrated. Internal savings will need to be targeted so resources can be shifted toward climate work without hurting near-term profits.”).

⁹⁴ Gadinis & Miazad, *supra* note 6, at 1410.

⁹⁵ *See id.* at 1413 (“We argue that the scope of issues highlighted by sustainability is much wider than the violations that compliance targets. Because of its focus on legal risk, compliance is backwards-looking and remains tethered to statutory and regulatory definitions of appropriate conduct, harm, and liability.”). Professors Gadinis and Miazad also express concern that compliance involves the threat of punishment, which can deter cooperation, whereas ESG is “non-confrontational.” *Id.* at 1442. Presumably, though, the correct balance of carrots and sticks will vary depending on the circumstances, and incentive payments for outstanding performance are fully compatible with a compliance approach. *See infra* Section IV.A.3.

⁹⁶ *Id.*

⁹⁷ *See* Baer, *supra* note 14, at 958 (“General compliance programs address the overall conduct of business in accordance with prescribed legal, and increasingly ethical and cultural, norms.”).

Indeed, one of the advantages of this Article's recommended approach is that it harnesses the corporate compliance function as it now exists and uses it to address climate change. Thus, to the extent ESG helps to identify risks that a corporation ought to address, it is fully compatible with compliance.⁹⁸

C. Compliance Revisited

To be clear, this Article does not question the value of standard risk-management principles or ESG as resources for addressing climate change but, rather, contends that compliance provides the best framework. Other scholars contend that corporations that wish to address climate change must "voluntarily move beyond mere compliance."⁹⁹ This Article argues that, properly understood, climate change is already a compliance matter.

From the standpoint of "firm-wide compliance risk management,"¹⁰⁰ the need to address climate change is clear. First, today's business risk is tomorrow's legal concern. Without proactive risk management, corporations may be blindsided by legal and regulatory troubles that could have been avoided: "When a company's environmental efforts simply try to meet legal limits long decried as inadequate by environmentalists, the company may find itself exposed when these environmentalists are proven right and catastrophe hits."¹⁰¹ Sooner or later, lawmakers will be forced to

⁹⁸ As Professors Gadinis and Miazad recognize, "[o]ften, the legal, compliance, and ESG departments work together to advance future policies." Gadinis & Miazad, *supra* note 6, at 1430. Indeed, one could even expand the definition of ESG to include risk management *and* compliance. See Pollman, *Corporate Social Responsibility*, *supra* note 81, at 7 ("[W]hereas CSR is often framed in terms of social obligations, rooted in ethical or moral concerns, ESG is generally discussed in terms of risk management for firms and investors, individually or systemically."). According to this account, ESG encompasses compliance. See *id.* (stating that ESG "envisions a scope that includes legal compliance as well as additional concerns"). Likewise, though, one might point out that the strategic risk management called for by compliance policies includes the ethical and social concerns that are sometimes labeled ESG. For further discussion of the complementarity of ESG and compliance, see *infra* Section IV.A.3.

⁹⁹ Sneirson, *supra* note 86, at 993.

¹⁰⁰ Miller, *supra* note 11, at 438.

¹⁰¹ Gadinis & Miazad, *supra* note 6, at 1466. Likewise, "[w]hen a company's management declines to inquire how female employees are treated in the workplace, it allows pernicious behaviors to flourish." *Id.*

confront the reality of climate change. As fiduciaries, corporate managers are obligated to address climate change perils that threaten the viability of a corporation's business model.¹⁰² Consequently, to get ahead of inevitable regulation, corporate managers should recognize the need to take proactive measures.¹⁰³

Second, corporate compliance begins with the proverbial "tone at the top" and is not just a set of rules to follow. Compliance has, and is intended to have, normative force and calls for ethical decision making.¹⁰⁴ Thus, even where the law has not yet caught up, corporations should accept the science of climate change and act accordingly. The problem of carbon emissions falls most directly on corporations in the fossil fuel industry, but it also encompasses corporations that use petroleum to manufacture their products, or that tap into supply chains involving the shipment of goods around the world.¹⁰⁵ Container ships are responsible for "2.9 percent of

¹⁰² Benjamin, *supra* note 79, at 368 (arguing that "fiduciary duties as guided by the shareholder wealth maximization norm at the very least require directors to be informed of and take into account the risks of climate change to their businesses").

¹⁰³ See J.R. DeShazo & Jody Freeman, *Timing and Form of Federal Regulation: The Case of Climate Change*, 155 U. PA. L. REV. 1499, 1502 (2007) ("The regulatory burden of addressing climate change will fall most heavily on the transportation and electric power sectors, since they are responsible for most domestic greenhouse gas (GHG) pollution, but will also encompass many other sectors, including manufacturing. Thus, regulation in response to climate change will deeply affect the American economy."). Another possible response to the prospect of new regulation, however, is that corporations will invest in lobbying against those regulations. See, e.g., Hiroko Tabuchi, *Toyota Led on Clean Cars, Now Critics Say It Works to Delay Them*, N.Y. TIMES, July 25, 2021 (describing "Toyota's worldwide efforts—in markets including the United States, the United Kingdom, the European Union and Australia—to oppose stricter car emissions standards or fight electric vehicle mandates").

¹⁰⁴ See Benjamin, *supra* note 79, at 364 ("Norms are powerful tools in corporate law. Corporate actors, such as directors, are often influenced by corporate culture and norm-based standards.") (citing Edward B. Rock & Michael L. Wachter, *Norms & Corporate Law, Introduction*, 149 U. PA. L. REV. 1607, 1608 (2001)).

¹⁰⁵ The challenge for fossil fuel companies is that carbon emissions are the main source of their profits. Slowing down climate change will require fossil fuel companies to stop their exploration efforts and leave existing oil and gas in the ground. See David Roberts, *On Climate Change, Oil and Gas Companies Have a Long Way to Go*, VOX (Sept. 25, 2020), <https://www.vox.com/energy-and->

global carbon-dioxide emissions, almost as much as the entire continent of South America.”¹⁰⁶ Even seemingly trivial contributions to climate change add up, as when corporations send sales managers out to meet with customers rather than using the telephone or a videoconference.¹⁰⁷ No ethical corporation can ignore its contributions to the climate change crisis.

Third, even if the systemic consequences of climate change were not a compliance matter for individual corporations, especially those that are less reliant on fossil fuels, climate change adaptation measures are within each corporation’s control.¹⁰⁸ Setting aside concerns about the future, “[t]he impacts of climate change are already affecting companies in terms of increased operational costs, disrupted production, plant shutdowns, worker absences due to extreme events, as well as compromised assets.”¹⁰⁹ Thus, regardless of whether (and when) climate change mitigation and adaptation measures may be mandated by law, existing threats trigger a compliance obligation to act to protect physical assets and personnel. For example, a corporation that holds sensitive customer records should maintain duplicate records offsite in case a disaster damages the principal location. To address the safety of their employees, corporations in vulnerable regions should include in their disaster planning a protocol to

environment/2020/9/25/21452055/climate-change-exxon-bp-shell-total-chevron-oil-gas.

¹⁰⁶ Aurora Almendral, *Greening the Waves: Can Massive Cargo Ships Use Wind to Go Green*, N.Y. TIMES MAG., June 27, 2021, at 40, 42.

¹⁰⁷ Robert H. Socolow, *Truths We Must Tell Ourselves to Manage Climate Change*, 65 VAND. L. REV. 1455, 1459 (2012) (“Everyone would rather live on a bigger planet—a planet, say, as large as Jupiter—where our day-to-day activities mattered far less. On our planet, however, the insights from climate science reveal that humankind is a powerful agent of undesired change.”).

¹⁰⁸ Because climate change is already exacerbating disaster harm, adaptation must be part of the response to climate change, and yet adaptation has not been given enough attention in policy discussions. See Jacqueline Peel & Hari M. Ofsosky, *Sue to Adapt?*, 99 MINN. L. REV. 2177, 2179 (2015) (“The U.S. debate over climate change has largely focused on . . . reducing U.S. greenhouse gas (GHG) emissions from energy production, transportation, industrial manufacturing, and land sector activities. There has been far less attention paid to the question of adaptation—how governments, businesses, communities and individuals should take action to manage the consequences of a changed climate and to reduce vulnerability to the effects of climate change.”).

¹⁰⁹ Benjamin, *supra* note 79, at 367.

ensure that employees receive timely alerts concerning disasters and assistance in evacuating.¹¹⁰

Finally, as Elizabeth Pollman has observed, a corporation's commitment to compliance may be an acknowledgment of the existence of a foundational social contract that permits the corporation to exist and to enjoy special rights, including a limitation of liability that externalizes certain harms: "Corporations produce a continual flow of externalities; embedding a duty of obedience to laws and regulations that constrain these externalities for the good of society helps to legitimize corporate law."¹¹¹ Accordingly, the compliance function may be understood as part of a broader social bargain between corporations and society. If that social contract imposes any obligations on corporations, a duty to address climate change crisis would be one such obligation.

The specifics of a compliance framework will vary across industries and locations and according to the types of disaster that are most likely to be encountered.¹¹² Compliance protocols may also vary based on the size of the corporation.¹¹³ For example, large corporations may have more ability to shape supply chain practices by refusing to deal with suppliers unless they agree to sustainability guidelines.¹¹⁴ At the top of a supply chain, corporations "retain enormous power amounting to de facto

¹¹⁰ See, e.g., Amber Colley, *How to Protect Your Business from a Natural Disaster*, DUNN & BRADSTREET (Dec. 10, 2019), <https://www.dnb.com/perspectives/small-business/how-to-protect-your-business-from-natural-disasters.html>.

¹¹¹ Corporations produce a continual flow of externalities; embedding a duty of obedience to laws and regulations that constrain these externalities for the good of society helps to legitimize corporate law. Pollman, *supra* note 39, at 2028–29.

¹¹² For example, "[b]ecause insurers play a central role in helping our global economy to manage risk and to make business and personal financial ventures viable, their participation in solving the climate change problem is essential." Sean B. Hecht, *Climate Change and the Transformation of Risk: Insurance Matters*, 55 UCLA L. REV. 1559, 1561 (2008). For insurance companies, measuring the risk of climate change is an existential challenge. *Id.*; see also Howard C. Kunreuther & Erwann O. Michel-Kerjan, *Climate Change, Insurability of Large-Scale Disasters, and the Emerging Liability Challenge*, 155 U. PA. L. REV. 1795 (2007).

¹¹³ Porter & Reinhart, *supra* note 65 ("Each company's approach will depend on its particular business and should mesh with its overall strategy.").

¹¹⁴ See *infra* Section IV.A.2.

operational control.”¹¹⁵ Also, depending on the location of a corporation’s physical assets and its line of business, adaptation to certain types of natural hazards may be more pressing in order to protect customers, employees, and investors. Fundamentally, though, climate change mitigation and adaptation should be seen as a compliance obligation for all corporations. The next section explains how a shift in orientation from risk management to compliance can be accomplished.

IV. CREATING COMPLIANCE OBLIGATIONS

For climate change to become a compliance obligation, there must be a mechanism to trigger the obligation and to define its substantive content. Corporations that choose to take responsibility for climate change have several options to make the requisite commitment. Likewise, there are avenues that lawmakers, regulators, investors, and environmental activists can pursue to create compliance obligations when corporate boards fail to do so.

A. Internal Mechanisms

Corporations can define their compliance commitments in several different ways. For example, corporations can join private standard-setting associations to create shared obligations applicable to all member firms. Or, especially when dealing with supply chains, corporations can use contracts to create and enforce climate change commitments. ESG initiatives can be bolstered through integration with compliance metrics—for example, by publishing goals for carbon reduction and tying executive pay to the achievement of those goals. To the extent corporate law’s prioritization of shareholder interests constrains a corporation’s compliance response, social enterprise law offers additional tools for building climate change goals into the corporation’s mission statement and facilitates a rebalancing of profit and social purpose.

¹¹⁵ Nelson Lichtenstein, *Two Cheers for Vertical Integration: Corporate Governance in a World of Global Supply Chains*, in CORPORATIONS AND AMERICAN DEMOCRACY 329, 340 (Naomi R. Lamoreaux & William J. Novak eds., 2017).

1. *Self-Regulatory Organizations*

Corporations can band together to form self-regulating communities of interest and then use those ties to create climate change obligations:

private actors—including firms, industry associations, private standard-setting organizations, and other NGOs—play an increasingly important role alongside public regulators in setting and enforcing environmental standards, either as co-regulators or as sources of environmental governance in their own right. These shared governance efforts have been described as “new governance,” “collaborative governance,” “responsive regulation,” and “modular” environmental regulation, among other monikers.¹¹⁶

Collective governance strategies range from the highly formal to the informal. On the formal end of the continuum, stock exchanges associations set detailed membership and listing standards for corporations that wish to join.¹¹⁷ To be listed on the New York Stock Exchange (NYSE), for example, a corporation must comply with governance mandates including board independence rules and shareholder voting on major asset sales.¹¹⁸ Thus, opting into the NYSE brings with it an additional set of compliance obligations—applicable so long as a corporation continues to

¹¹⁶ Light, *supra* note 4, at 153; Pollman, *Corporate Social Responsibility*, *supra* note 81, at 13 (“External forms of ‘meta-regulation’ arise from institutional investors, regulators, NGOs, and other groups that develop schemes that guide, measure, and monitor corporate conduct. This area of ‘soft law’ and ‘private regulation’ has become a veritable alphabet soup of acronyms as third-party standards, ratings, and rankings have multiplied.”).

¹¹⁷ See, e.g., *Membership*, NYSE, <https://www.nyse.com/markets/nyse/membership> [<https://perma.cc/QR4B-DBTX>]; *U.S. Exchange Membership*, NASDAQ, <http://www.nasdaqtrader.com/Trader.aspx?id=Membership> [<https://perma.cc/VD23-2LSA>].

¹¹⁸ See *NYSE Listed Company Manual*, NYSE, § 3, r. 303A.01 (2008), <https://nyseguide.srorules.com/listed-company-manual> [<https://perma.cc/Y529-7K85>] (“Listed companies must have a majority of independent directors. Effective boards of directors exercise independent judgment in carrying out their responsibilities. Requiring a majority of independent directors will increase the quality of board oversight and lessen the possibility of damaging conflicts of interest.”).

be listed on the exchange. The NYSE has a range of sanctions it can apply for violations including suspension and delisting.¹¹⁹

Stock exchange rules could be used to push member corporations to address climate change. To that end, the Climate Disclosure Standards Board (CDSB) has issued a report “proposing corporate climate change reporting requirements for adoption or support by stock exchanges . . . to encourage the supply and use of information to strengthen the resilience of markets against climate change disruption.”¹²⁰ The CDSB states that as “repositories for the rights, rules, mechanisms and systems that shape economic relationships, stock exchanges and their regulators have a powerful role to play in protecting market actors, creating the conditions for clear disclosure and promoting incentives for the development of sustainable practice.”¹²¹ In short, stock exchanges can write rules concerning climate change that create compliance obligations for their members.

At the other end of the continuum, corporations can look to nonmandatory guidelines promulgated by industry associations to support standard setting beyond what is required by external laws and regulations. For example, on July 26, 2021, “nearly 60 major medical organizations, including the American Medical Association and the American Nurses Association, called . . . for mandatory vaccination of health care workers.”¹²² By banding together and speaking with a single voice, these groups intend to offer support for individual hospitals and health care systems contemplating mandatory vaccination rules.¹²³

¹¹⁹ See *id.* § 8, r. 801.000.

¹²⁰ *Developing Climate Resilient Stock Markets*, CDSB, <https://www.cdsb.net/what-we-do/policy-work/developing-climate-resilient-stock-markets> [<https://perma.cc/KUD3-MLRJ>]. The CDSB identifies itself as “an international consortium of business and environmental NGOs.” CLIMATE DISCLOSURE STANDARDS BOARD (CDSB), <https://www.cdsb.net/> [<https://perma.cc/9ULZ-9EGE>]. For further analysis of the role of disclosure rules in creating compliance obligations, see *infra* Section IV.B.3.

¹²¹ *Developing Climate Resilient Stock Markets*, *supra* note 120.

¹²² Emily Anthes, *Medical Groups Call for Mandatory Vaccination of U.S. Health Care Workers*, N.Y. TIMES, July 26, 2021. Signatories included “a wide array of professional associations, including those representing doctors, nurses, pharmacists and infectious disease experts.” *Id.*

¹²³ See *id.* (noting opposition to COVID-19 vaccines and that “just 58.7 percent of nursing home employees have been fully vaccinated, according to the Centers for Disease Control and Prevention”). The joint statement provides the

The Business Roundtable, an influential group comprised of CEOs, pursued a similar strategy, issuing a statement on climate change in September 2020, that “corporations should lead by example, support sound public policies and drive the innovation needed to address climate change.”¹²⁴ According to the World Resources Institute, the principles set forth in the Business Roundtable statement had real value: “they represent a good understanding of the policy portfolio needed to address climate change, explicitly endorse a price on carbon and break away from oppositional climate positioning that was common before the results of the 2020 election.”¹²⁵ Because the Business Roundtable statement is not self-enforcing, however, it remains unclear what action individual corporations will take in response.¹²⁶ An industry consensus can support the efforts of individual corporations, but it does not have the weight of law.

Self-regulatory organizations offer an appealing approach to developing and implementing compliance obligations. By signaling their ability to work jointly for the collective good, corporations may seek to allay the concerns of regulators, shape the content of eventual laws and regulations, and outwit heedless competitors that ignore regulatory

rationale for insisting upon vaccinations: “This is the logical fulfillment of the ethical commitment of all health care workers to put patients as well as residents of long-term care facilities first and take all steps necessary to ensure their health and well-being.” *Id.* (internal quotation marks omitted).

¹²⁴ The Business Roundtable statement, while nonbinding, is an example of collective goal setting. See *Addressing Climate Change*, BUS. ROUNDTABLE (Sept. 2020), <https://www.businessroundtable.org/climate>. The group had previously declared that corporate interests need to be aligned with societal interests. *Business Roundtable Redefines the Purpose of a Corporation to Promote “An Economy That Serves All Americans,”* BUS. ROUNDTABLE (Aug. 19, 2019), <https://www.businessroundtable.org/business-roundtable-redefines-the-purpose-of-a-corporation-to-promote-an-economy-that-serves-all-americans>.

¹²⁵ Amy Meyer & Jillian Neuberger, *Trade Associations Speak on Carbon Pricing. Will Action Follow?*, WORLD RES. INST. (Apr. 12, 2021), <https://www.wri.org/insights/trade-associations-speak-carbon-pricing-will-action-follow>.

¹²⁶ See *id.* (describing a helpful evolution of industry groups from opposition to carbon pricing and other mitigation measures to ostensible support but noting that there is more work to do: “[F]or improved public positions to have real meaning, trade associations must put their political and financial muscle behind these statements.”).

concerns and push for short-term gains.¹²⁷ Also, by creating a level playing field, self-regulatory organizations can reduce the collective action problem. If each member corporation knows that all other corporations have agreed to live by the same rules, that will make it easier to adopt climate change mitigation measures that might otherwise be too costly to survive market competition.¹²⁸

2. *Supply Chain Contracts*

Contracts are another tool that is available for creating compliance obligations and can be used to ensure that economic exchanges incorporate climate change protocols and other sustainability measures. Once entered, a contract is a legal document, enforceable in court.¹²⁹ As such, contracts are capable of filling gaps in existing environmental law:

Scholars have . . . identified the important phenomenon of environmental “contracts,” which include not only “second-order agreements”—in which private firms allocate responsibility for compliance with public environmental law among themselves “in

¹²⁷ The other side of the coin is that industry groups can lobby lawmakers to weaken climate change rules. *See* Tabuchi, *supra* note 103 (“More recently, the Alliance for Automotive Innovation, an industry lobby group, argued in closed-door meetings in Washington that the California compromise, which is expected to be a model for new standards from the Biden administration, is in fact not feasible for all of its members. . . .”). When industry groups take the lead, the role of individual corporations may be obscured. *Id.* (noting that the chairperson of the Alliance for Automotive Innovation is a Toyota government liaison and that “Toyota is promoting itself as strongly backing a green transition, but in effect, it is opposing efforts that others say are crucial to a swift green transition”).

¹²⁸ Industry coordination efforts that effect pricing may raise antitrust concerns, and some scholars have argued that antitrust law needs to be interpreted liberally to facilitate joint efforts to tackle climate change. *See* Light, *supra* note 4.

¹²⁹ To be clear, a contract is a tool for creating private obligations and does not nullify questions about whether those obligations are permissible. Corporate managers could not, for instance, evade the constraints of shareholder primacy simply by signing contracts that prioritize the interests of other stakeholders.

the shadow” of public regulation—but also supply-chain contract terms requiring environmental performance.¹³⁰

By adapting contractual terms to handle environmental concerns, corporations can become “active participants in setting and enforcing environmental standards.”¹³¹

Contract law is particularly useful as a tool for extending a corporation’s values across its supply chain.¹³² Without some method for overseeing supply chains, it would be impossible to ensure that a corporation’s products were made in sustainable fashion.¹³³ According to one estimate, “Global supply chains power 80% of world trade, 60% of global production, and sustain over 450 million jobs.”¹³⁴ A concern sometimes expressed about supply chains is that a consumer-facing corporation can hide human rights violations and environmental degradation when it is irresponsible about how it sources its products.¹³⁵ By using independent businesses to acquire materials, “businesses could focus on the bottom line without much concern for how it was

¹³⁰ Light, *supra* note 4, at 154; Michael P. Vandenbergh, *The New Wal-Mart Effect: The Role of Private Contracting in Global Governance*, 54 UCLA L. REV. 913 (2007).

¹³¹ Light, *supra* note 4, at 155.

¹³² See Pollman, *Corporate Social Responsibility*, *supra* note 81, at 12–13 (“Supply chain assurance extends the voluntarily adopted principles into its external contracts through private ordering, requiring suppliers to use international business norms and standards of human rights, labor protection, and social responsibility, or otherwise providing incentives to do so.”).

¹³³ See Kishanthi Parella, *Improving Human Rights Compliance in Supply Chains*, 95 NOTRE DAME L. REV. 727, 729 (2019) (stating that smart phones, sneakers, and many other familiar consumer products “are sourced, manufactured, assembled, transported, distributed, warehoused, marketed, and sold by several different companies, often in several parts of the world”).

¹³⁴ Robert C. Bird & Vivek Soundararajan, *From Suspicion to Sustainability in Global Supply Chains*, 7 TEX. A&M L. REV. 383, 384 (2020).

¹³⁵ *Id.* at 384 (stating that, too often, “[w]orkers are subjected to dangerous working conditions, weak labor rights, violence, and torture”) (citing Michael J. Maloni & Michael E. Brown, *Corporate Social Responsibility in the Supply Chain: An Application in the Food Industry*, 68 J. BUS. ETHICS 35, 43 (2006)); Steph Tai, *Food Sustainability in the Age of Complex, Global Supply Chains*, 71 ARK. L. REV. 465, 468 (2018) (noting problem of “lack of accountability within private supply chains”).

achieved.”¹³⁶ If corporations sometimes turn a blind eye to supply chain misconduct, however, they can also use their purchasing power to extend oversight over the supply chain.¹³⁷

Contract is a key component of supply chain management because it sets the standards and the consequences for non-compliance. For example, McDonald’s has launched an Animal Health & Welfare initiative, in partnership with a number of industry associations, to leverage its economic power to improve food safety and to ensure more humane conditions for animals: “By using our size and global reach, we are helping to drive positive change, ensuring the chicken, eggs, beef and pork we source come from producers who share our commitment to animal health and welfare.”¹³⁸ In a section titled “Ensuring Supply Chain Compliance,” McDonald’s outlines its oversight mechanisms:

Our animal health and welfare expectations for all suppliers are defined in our Global Raw Material Sponsorship Program and further outlined in our Global Sustainable Sourcing Guide, as well as being embedded in our product Quality System Specifications. Our global and market Quality Systems teams are in frequent contact with our suppliers, reviewing their performance to ensure policies are properly implemented and consistently met.¹³⁹

With respect to the beef used in McDonald’s hamburgers, the corporation states “we’ve collaborated with farmers and ranchers who have shown us it’s possible to produce beef in a way that protects and maintains native landscapes . . . and sequesters carbon in soils while supporting farmer livelihoods for the long term.”¹⁴⁰ Thus, supply chain

¹³⁶ Susan S. Kuo & Benjamin Means, *The Political Economy of Corporate Exit*, 71 VAND. L. REV. 1293, 1313 (2018).

¹³⁷ See CLARA TORRES-SPELLISCY, CORPORATE CITIZEN? AN ARGUMENT FOR THE SEPARATION OF CORPORATION AND STATE 211 (2016) (“Walmart has done more than the Oslo Accords to improve environmental conditions in China by saying to their manufacturers to up their game or else we won’t buy from you anymore.”).

¹³⁸ *Animal Health & Welfare*, MCDONALDS, <https://corporate.mcdonalds.com/corpmcd/our-purpose-and-impact/food-quality-and-sourcing/animal-health-and-welfare.html> [<https://perma.cc/4X6E-9B7U>].

¹³⁹ *Id.*

¹⁴⁰ *Sustainable Agriculture & Beef*, MCDONALDS, <https://corporate.mcdonalds.com/corpmcd/our-purpose-and-impact/our->

contracts can build in environmental protections including climate chain mitigation measures.

Whether McDonald's self-reporting overstates its commitment to sustainability,¹⁴¹ it is useful for our purposes because it illustrates how supply chain contracts can create meaningful compliance obligations: "sustainability problems are managed through negotiation and enforcement of agreements, prepared outcomes for unexpected events, and relying on formal institutions as a backdrop for performance."¹⁴² McDonald's explanation of its collaborative approach in managing suppliers further shows that supply chain contracts are not self-enforcing and require oversight to function properly. In other words, supply chain contracts create enforceable obligations but should not be confused with the compliance framework they presuppose.

3. Reinforcing ESG Commitments

ESG commitments are "distinct from actions taken in response to a legal or contractual obligation."¹⁴³ For this reason, they are not binding and may falter if asked to bear the full load of a corporation's climate change

planet/sustainable-agriculture.html [https://perma.cc/DHK9-U72G] (last visited, Jul. 26, 2021).

¹⁴¹ See Tai, *supra* note 135, at 470 (noting that corporate sustainability initiatives "can raise concerns of 'greenwashing,' a term used 'to describe the deceptive use of "green marketing" to promote a misleading perception that a company's policies, practices, products or services are environmentally friendly'" (citation omitted); Kim Johnson, *What's Wrong With McDonalds?*, ANIMALEQUALITY BLOG (June 25, 2019), <https://animalequality.org/blog/2019/06/25/mcdonalds-chicken-cruelty/> ("If you were a chicken, Ronald McDonald would represent the devil and the golden arches would be Hell on Earth."). The author asserts that "in the United States, McDonald's is one of the worst culprits when it comes to the suffering of animals in its supply chain," *id.*, but does not address the Animal Health & Welfare plan or whether the corporation's representations concerning supply chain improvements are accurate.

¹⁴² Bird & Soundararajan, *supra* note 134, at 385 (critiquing contract law as an incomplete source of supply chain governance). Although contract law can define obligations, "[s]uppliers often reside in jurisdictions where contract enforcement is corrupt, weak, or absent." *Id.* (citing inter alia Michael Trebilcock & Jing Leng, *The Role of Formal Contract Law and Enforcement in Economic Development*, 92 VA. L. REV. 1517, 1543–54 (2006)).

¹⁴³ Gadinis & Miazad, *supra* note 6, at 1416.

mitigation efforts.¹⁴⁴ ESG and compliance are complementary mechanisms, however, and corporations can build compliance obligations around ESG commitments by setting specific performance targets, by incentivizing personnel to meet those targets, and by making appropriate public disclosures.¹⁴⁵ Through these methods, an ESG commitment can be translated into carefully defined rules and procedures that lend themselves to compliance oversight.¹⁴⁶

For example, until recently, corporate executives were compensated based on financial performance metrics, not climate change.¹⁴⁷ In December 2018, however, “Shell [became] the first major extractive company to incorporate a carbon emissions reduction measure into its executive compensation, prompting similar moves by London-based BP and France’s Total.”¹⁴⁸ The U.S. company Chevron has since followed suit.¹⁴⁹ Although the climate change goals are set internally and could be modified without legal consequence, carbon-incentive programs draw heavily upon existing compliance frameworks procedurally; they match rhetoric with specific objectives and a pathway to achieve those objectives.

¹⁴⁴ See *supra* Section III.B.

¹⁴⁵ Corporations, having set their own standards, may then adopt compliance procedures to meet those standards. See Pollman, *Corporate Social Responsibility*, *supra* note 81, at 11 (“Finally, CSR and ESG intersect with ‘compliance’ in another meaning of the term—rather than focusing on legal obedience and related risks, a separate inquiry looks into what standards or metrics companies that claim to have CSR and ESG aims are trying to comply with or meet.”).

¹⁴⁶ For a different argument in favor of integrating compliance and ESG, see Leo E. Strine, Jr. et al., *Caremark and EESG, Perfect Together: A Practical Approach to Implementing an Integrated, Efficient, and Effective Caremark and EESG Strategy*, 106 IOWA L. REV. 1885, 1888 (arguing that ESG—referred to by the authors as EESG—is a prophylactic method of ensuring adequate compliance: “By aiming for higher standards of conduct than the law mandates, corporations should at least do what is legally required.”).

¹⁴⁷ See Gadinis & Miazad, *supra* note 6, at 1420 (“Just two years ago, Shell was fending off pressure from shareholders to tie executive compensation to carbon emissions reduction goals.”). Indeed, “Shell’s general counsel even went so far as to state that it would be ‘foolhardy’ to expose the company to legal challenges, implying that introducing factors other than stock performance into the compensation calculus may be precluded by the shareholder primacy principle.” *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ See *id.*

When formalized through public disclosure, moreover, voluntary commitments can trigger other compliance obligations. For example, on June 9, 2021, Tyson Foods announced that it would seek to “achieve net-zero greenhouse gas (GHG) emissions across its global operations and supply chain by 2050.”¹⁵⁰ Tyson Foods has not taken on any specific legal obligations, but honoring its public commitment will necessarily entail a massive internal compliance initiative—Tyson Foods is a “global organization with 239 facilities and 139,000 employees worldwide” and intends to target “emissions tied to direct global operations, energy sources and throughout the company’s supply chain.”¹⁵¹ Notably, if Tyson Foods decided to revise downward its emissions targets, it would likely be required to make embarrassing revisions to its previous public disclosures to avoid liability for securities fraud. Although it was careful not to make a binding promise, Tyson Foods may have welcomed the lock-in effect created by its public disclosure, which made the net-zero commitment credible.

Thus, when defenders of an ESG approach admit the “new wave of thinking on compliance centers around corporate culture as the defining element of effectiveness,”¹⁵² but maintain that ESG is a superior approach, they separate ESG from the compliance apparatus needed to give it teeth. Arguments in favor of ESG include: (1) that ESG is better at gathering information from external stakeholders; and (2) that ESG will have greater “legitimacy” from the public’s perspective.¹⁵³ Taken on their own terms, these arguments are not convincing. First, at least with respect to climate change, information gathering does not seem to be at issue—the need to drastically reduce carbon emissions could hardly be clearer. In 2015, nearly 200 nations pledged to “hold the increase in the global average temperature to well below 2°C.”¹⁵⁴ Meeting that goal will require a radical transition of the global economy and with scant time to spare.

¹⁵⁰ Press Release, Tyson Foods, Tyson Foods Targets 2050 to Achieve Net Zero Greenhouse Gas Emissions (June 9, 2021), <https://www.tysonfoods.com/news/news-releases/2021/6/tyson-foods-targets-2050-achieve-net-zero-greenhouse-gas-emissions>.

¹⁵¹ *Id.* (listing priorities including renewable energy, land stewardship, managing supply chains, and working with “advocacy groups such as the Net Zero Business Alliance”).

¹⁵² Gadinis & Miazad, *supra* note 6, at 1469.

¹⁵³ *Id.* at 1470.

¹⁵⁴ U.N. Framework Convention on Climate Change, Adoption of the Paris Agreement, U.N. Doc. FCC/CP/2015/L.9.Rev.1 (Dec. 12, 2015).

Also, while public support is important, even if ESG were somehow more credible than compliance, the durability of climate change mitigation efforts will depend on their legitimacy when challenged by shareholders and adjudicated in court. To the extent a compliance-based approach is better positioned to meet those challenges than ESG initiatives, compliance offers a more important type of legitimacy. Moreover, when ESG commitments are translated into compliance obligations, they do not thereby become less compelling. In sum, ESG and compliance efforts can be complementary methods of achieving the same goal—the mitigation of climate change.

4. *Social Enterprise Law*

This Article focuses on the creation of compliance obligations concerning climate change in the context of large, public corporations like McDonalds, ExxonMobil, and Tyson Foods.¹⁵⁵ Directors and officers owe fiduciary duties to the corporation and its shareholders. Although the business judgment rule gives directors and officers wide discretion to decide what course to pursue, the perceived strength of the “shareholder wealth maximization standard” creates “an ill-defined legal risk” whenever a corporation appears to elevate purpose over profit.¹⁵⁶

Even corporations that develop a reputation for socially responsible conduct may find it difficult to live up to their brand when it conflicts with the need to earn profits for shareholders. For example, a recent *New York Times* expose revealed that Toyota, the car manufacturer that developed the Prius and had long led the effort for cleaner automobiles, was behind lobbying efforts to delay climate change laws and regulations that would speed the transition to electric vehicles.¹⁵⁷ Toyota had been developing a

¹⁵⁵ Even among those three corporations, there is a significant difference: Tyson Foods is a third-generation, family-controlled business. Although it has public shareholders and attendant fiduciary obligations, business strategy at Tyson Foods is largely determined by the Tyson family and may be less tied to quarterly returns. See Means, *supra* note 87, at 918 (arguing that conventional accounts of controlled companies miss the importance of “stewardship—the sense that control comes with obligations to the business, to one’s own family, to employees, and to community”).

¹⁵⁶ Anne M. Tucker, *Impact Investment and Alternative Capital Channels*, in THE CAMBRIDGE HANDBOOK OF SOCIAL ENTERPRISE LAW 177 (Benjamin Means & Joseph W. Yockey eds., 2018).

¹⁵⁷ See Tabuchi, *supra* note 103.

different technology and would be at a competitive disadvantage if electric cars took over the market before it could adjust.¹⁵⁸

The sale of the politically progressive, Vermont-based Ben & Jerry's Ice Cream to Unilever, a global conglomerate, is another example of the limits of social purpose in a for-profit corporation.¹⁵⁹ Board members later explained, "We did not want to sell the business . . . [b]ut we were a public company, and the board of directors' primary responsibility is the interest of the shareholders."¹⁶⁰ Although Unilever indicated that it would protect the Ben & Jerry's culture, the sale went through with no guarantees that the company's progressive commitments would survive the change in ownership.¹⁶¹

To the extent the measures needed to address climate change cannot be reconciled with shareholder profits, social enterprise forms may offer

¹⁵⁸ See *id.* (reporting Toyota's apparent "business quandary: Even as other automakers have embraced electric cars, Toyota bet its future on the development of hydrogen fuel cells—a costlier technology that has fallen far behind electric batteries—with greater use of hybrids in the near term."). Consequently, "a rapid shift from gasoline to electric on the roads could be devastating for the company's market share and bottom line." *Id.* In relating this example, we do not mean to suggest that Toyota's current position is necessarily insincere. Toyota might reasonably believe that its hydrogen fuel cell technology is a better approach, that hybrid vehicles are an appropriate bridge technology, and that the push for electric cars is "more political showmanship than sound planning." *Id.* (internal quotation marks omitted).

¹⁵⁹ See Tucker, *supra* note 156, at 177; Antony Page & Robert A. Katz, *Freezing Out Ben & Jerry: Corporate Law and the Sale of a Social Enterprise Icon*, 35 VT. L. REV. 211 (2010).

¹⁶⁰ Hannah Pool, *Question Time with Hannah Pool*, GUARDIAN (July 31, 2008), www.guardian.co.uk/business/2008/jul/31/5 (interview with Jerry Greenfield, cofounder of Ben & Jerry's) (cited in Tucker, *supra* note 156, at 177).

¹⁶¹ See Tucker, *supra* note 156, at 177 (stating that Ben & Jerry's "demonstrated its commitment to purpose through sustainable products, environmental conservation, supporting employees with a living wage and benefits, and significant charitable contributions"). In fairness to Unilever, it should be noted that the company has made a number of strong commitments to serve the public interest. See, e.g., *Unilever Sets Out New Actions to Fight Climate Change, and Protect and Regenerate Nature, to Preserve Resources for Future Generations*, UNILEVER, <https://www.unilever.com/news/press-releases/2020/unilever-sets-out-new-actions-to-fight-climate-change-and-protect-and-regenerate-nature-to-preserve-resources-for-future-generations.html> [<https://perma.cc/K9VP-7TM6>] (stating that the company will achieve "Net Zero emissions from all . . . products by 2039").

an alternative. In many jurisdictions, social entrepreneurs can “adopt a form of business organization that explicitly authorizes managers to prioritize public welfare while also returning profits to private investors.”¹⁶² Depending on the jurisdiction, available options may include “the low-profit limited liability company, the benefit corporation, the benefit LLC, the flexible purpose corporation, and the social-purpose corporation.”¹⁶³ Each of these forms of business association is meant to make it easier for social entrepreneurs who hope to harness the engine of private enterprise to meet social or environmental goals.¹⁶⁴

Even if an alternative form of business association affords managers more flexibility to seek social purposes alongside profits, there would still be a need to create robust compliance obligations to lock-in climate change mitigation goals. As Professor Dana Brakman Reiser explains,

Social entrepreneurs say they will make . . . decisions in a way different than traditional for-profit or nonprofit entities. But, for adoption of a specialized legal form to indicate that an entity actually is different, it must impose a new and unambiguous baseline standard and provide for its reliable enforcement.¹⁶⁵

A full discussion of social enterprise law is beyond the scope of this Article, but it should be kept in mind that the corporation is not the only possible choice of entity form. If climate change mitigation is beyond the capacity of the corporate form as it now exists, one possibility is corporate reform; another is for investors and entrepreneurs to migrate to other forms of business association.¹⁶⁶

B. External Mechanisms

If corporations decline to take responsibility for climate change, the most obvious route to creating a compliance obligation is through

¹⁶² Benjamin Means & Joseph W. Yockey, *Introduction*, in THE CAMBRIDGE HANDBOOK OF SOCIAL ENTERPRISE LAW, *supra* note 156, at 1.

¹⁶³ Dana Brakman Reiser, *Theorizing Forms for Social Enterprise*, 62 EMORY L.J. 681, 683 (2013).

¹⁶⁴ See Means & Yockey, *supra* note 162, at 1.

¹⁶⁵ Brakman Reiser, *supra* note 163, at 684.

¹⁶⁶ The short timeframe for mitigating climate change suggests that both avenues will need to be pursued simultaneously. There is, for example, no realistic pathway for converting ExxonMobil into a benefit corporation.

lawmaking. Assuming that a Green New Deal is unlikely to gain traction at the national level, there is still room under existing delegated authority for agencies to act—for example by create new disclosure requirements—and state and local lawmakers may also set standards within their own jurisdictions. Although a corporation’s business decisions are the province of the directors and officers, shareholders and other stakeholders can apply pressure, too—by lowering the stock price, raising the cost of capital, or, in extreme circumstances, by launching proxy battles for control of the corporation.¹⁶⁷

1. *State Environmental Law*

The most direct mechanism for creating a compliance obligation is to enact a statute or promulgate a rule; compliance is, of course, a corollary of whatever the law requires. For example, coal mining is inherently dangerous, but U.S. coal operations are far safer than coal mines in many other countries, demonstrating the effectiveness of a compliance regime dictated by comprehensive federal law and regulation.¹⁶⁸

New federal environmental laws targeting climate change will be difficult to enact in our era of divided and polarized government, but states

¹⁶⁷ See, e.g., Harper Ho, *supra* note 18, at 653 (making “the business case for risk-related activism”); Bainbridge, *supra* note 6, at 1736 (“If [a corporation’s] governance terms are unfavorable, investors will discount the price they are willing to pay for that firm’s securities. As a result, the firm’s cost of capital rises, leaving it, inter alia, more vulnerable to bankruptcy or hostile takeover.”). Although legal scholars aligned with the law and economics movement generally assume that shareholders will prioritize governance terms designed to maximize a corporation’s profits, the same price mechanism would permit those with other values to incentivize corporations in a different direction. Current research indicates that “over a quarter of global assets under management are now invested based on the company’s environmental and social profile, not just its earnings.” Gadinis & Miazad, *supra* note 6, at 1404.

¹⁶⁸ The Mine Safety and Health Administration (MSHA) acting under authority delegated to it by the Federal Mine Safety and Health Act has mandated an elaborate system of compliance to ensure the safety of mining operations, including “immediate notification by the mine operator of accidents, injuries and illnesses at the mine; training programs that meet the requirements of the Mine Act; and obtaining approval for certain equipment used in gassy underground mines.” *Mine Safety and Health*, U.S. DEPT’ OF LABOR, <https://www.dol.gov/general/topic/safety-health/mining> [<https://perma.cc/H53M-9WB2>].

and local governments will sometimes have more room to maneuver.¹⁶⁹ State “[r]egulation in response to climate change is a good example—perhaps the best in recent years—of states assuming a leadership role to address a social problem while the federal government remains inert.”¹⁷⁰ For example, by setting emissions caps, California has spurred innovation in automobile design, leading to breakthroughs that would not have been believed possible even a decade ago.¹⁷¹

Politics at the state level can be just as messy as at the federal level, however, and there can be no assurances that state lawmakers will accomplish what federal lawmakers cannot. In 2018, for example, Colorado’s legislature enacted a Climate Action Plan to reduce greenhouse gas emissions, describing its overall objective as follows:

Colorado shall strive to increase renewable energy generation and eliminate statewide greenhouse gas pollution by the middle of the twenty-first century and have goals of achieving, at a minimum, a twenty-six percent reduction in statewide greenhouse gas pollution by 2025, a fifty percent reduction in statewide

¹⁶⁹ See Benjamin, *supra* note 79, at 346 n.166 (noting that “regulatory action is occurring at the state and local levels” and listing examples from Oregon, North Carolina, Colorado, and California); Kirsten H. Engel & Barak Y. Orbach, *Micro-Motives and State and Local Climate Change Initiatives*, 2 HARV. L. & POL’Y REV. 119, 122 (2008) (stating that “the number and diversity of local climate change initiatives indicate that, despite their net costs, such initiatives are popular with voters and politicians”).

¹⁷⁰ DeShazo & Freeman, *supra* note 103, at 1500.

¹⁷¹ See David Roberts, *California Has a Problem, and Its Name is Cars*, VOX (Aug. 22, 2017), <https://www.vox.com/energy-and-environment/2017/8/22/16177820/california-transportation> (“In 2006, California passed its groundbreaking climate legislation AB 32, which put in place a target for greenhouse gas reductions and set in motion a cascade of regulations, subsidies, and performance standards that has continued unabated ever since.”). California continues to push for emissions reductions. See Press Release, Governor Gavin Newsome, Governor Newsom Announces California Will Phase Out Gasoline-Powered Cars & Drastically Reduce Demand for Fossil Fuel in California’s Fight Against Climate Change (Sept. 23, 2020), <https://www.gov.ca.gov/2020/09/23/governor-newsom-announces-california-will-phase-out-gasoline-powered-cars-drastically-reduce-demand-for-fossil-fuel-in-californias-fight-against-climate-change/>.

greenhouse gas pollution by 2030, and a ninety percent reduction in statewide greenhouse gas pollution by 2050.¹⁷²

Yet lawmakers have not been able to finalize an enforcement plan that would create any specific compliance obligations.

Indeed, Colorado's governor recently indicated that he would "veto a bill backed by fellow Democrats that is designed to enforce, through additional regulation, a state plan to cut greenhouse gas emissions to combat climate change."¹⁷³ Governor Polis expressed concern with the level of "dictatorial" authority the bill would give an unelected board and indicated that he would prefer a more collaborative approach with industry, environmental activists, and other stakeholders.¹⁷⁴ The proponents of the law do not have the votes to override a veto.¹⁷⁵

Also, a patchwork of state environmental laws could create other problems. For example, corporations subject to differing legal standards in multiple jurisdictions would incur increased compliance costs, unless they decided to meet the most stringent applicable standard regardless of location.¹⁷⁶ The prospect of regulation at the state, local, and possibly municipal level could motivate corporations to support national legislation, which could help break the current political impasse.¹⁷⁷

¹⁷² See H.B. 1261 (codified at COLO. REV. STAT. §25-7-102 (2019) (updating original 2007 version)).

¹⁷³ *Colorado Governor Says He Would Veto Climate Change Bill*, AP (Apr. 28, 2021), <https://apnews.com/article/colorado-bills-climate-climate-change-74b949bd233d459d3564f0ad525d404a> ("The wide-ranging bill, sponsored by Sens. Faith Winter and Dominick Moreno and Rep. Dominique Jackson, would direct the state Air Quality Control Commission to enact regulations to enforce the reduction of carbon emissions called for in the plan.").

¹⁷⁴ See *id.*

¹⁷⁵ See *id.*

¹⁷⁶ One reason California's regulation of the automobile industry has been so influential is that corporations cannot as a practical matter design and manufacture one type of car for sale in California and another one for sale in Nevada.

¹⁷⁷ This is not a new idea, however, which suggests that the incentive structure is not very strong, or that the state and local environmental lawmaking have not created undue difficulty for corporations. See Robert N. Stavins, *A Meaningful U.S. Cap-and-Trade System to Address Climate Change*, 32 HARV. ENV'T L. REV. 293, 295 (2008) ("Partly in response to fears of a fractured set of regional policies, an increasing number of large corporations, acting individually or in coalitions, together with environmental advocacy groups, have announced their support for serious national action.").

Alternatively, corporations might sue to challenge the right of individual states to set de facto national policy.¹⁷⁸

State environmental legislation is not a perfect substitute for federal action. Notably, to the extent jurisdictions compete for corporate business, state environmental laws can be undermined by corporations' ability to pick and choose where they operate. For example, Tesla recently conducted "a bidding war among seven states" to decide where it would locate a planned "gigafactory."¹⁷⁹ Even more recently, Tesla's controlling owner, Elon Musk, declared his intention to move Tesla's existing operations out of California, apparently because he was unhappy with how California was enforcing its COVID-19 rules.¹⁸⁰

2. Securities Law Disclosures

Instead of regulating the substance of securities offerings, federal law focuses largely on information—making sure that investors have adequate knowledge of an issuer's business to make an intelligent decision whether to buy, sell, or hold its stock.¹⁸¹ Accordingly, to avoid civil and criminal

¹⁷⁸ See Klass & Pai, *supra* note 4, at 738 (describing litigation involving coal and other energy exports). In order to export coal, corporations need to construct export terminals, but many "coastal states have refused to grant the permits and other approvals required to build these projects, leading both the coal industry and states with significant coal resources to file lawsuits against them." *Id.* The lawsuits allege violations of the dormant Commerce Clause. *Id.* Although not yet adjudicated by the U.S. Supreme Court, California's fuel standards have so far survived similar challenges. See *Rocky Mountain Farmers Union v. Corey*, 913 F.3d 940, 958 (9th Cir. 2019).

¹⁷⁹ Kuo & Means, *supra* note 136, at 1305 (citing Peter Elkind, *Inside Elon Musk's \$1.4 Billion Score*, FORTUNE (Nov. 14, 2014)).

¹⁸⁰ See Ian Spiegelman, *Elon Musk Says He Lives in Texas Now Because of California's 'Complacency'*, LOS ANGELES MAG. CITY THINK BLOG (Dec. 9, 2020), <https://www.lamag.com/citythinkblog/elon-musk-texas/> ("When authorities in Alameda forced him to shut down his Fremont factory in May for failing to follow COVID-19 protocols, he quickly took it upon himself to reopen without permission, which then led to several workers testing positive for the virus.").

¹⁸¹ See BAINBRIDGE, *supra* note 17, at 80 ("The Securities Act has two principal goals: assuring adequate disclosure of material information to investors and preventing fraud.").

sanctions, corporations know that they must disclose all material risks.¹⁸² To the extent climate change creates a material business risk that investors would want to know about before deciding whether to buy or sell stock, the federal securities laws compel corporations to make adequate disclosure of those risks.¹⁸³

When it is not clear what best practices would require, or if political constraints make intervention difficult, mandatory reporting is an attractive alternative to top-down legislation. Although disclosure requirements may be burdensome for corporations and should not be imposed without careful consideration, they are a more modest intervention than direct substantive regulation. In the context of climate change, for example, it may be one thing to set specific emissions standards for coal plants and quite another to determine the right level of carbon emissions for every form of economic activity.¹⁸⁴

Also, a disclosure regime necessarily shifts climate change from corporate risk management to compliance because corporations must investigate their own activities, report them on an annual basis, and monitor changes. For example, given the stakes, a corporation would want to have a very clear process for determining when climate change risks are material. Without mandating substantive results, the law can require

¹⁸² In addition to enforcement by the SEC and the Department of Justice, corporations may also be sued by shareholders under the antifraud provisions of Securities Exchange Act § 10(b) and Rule 10b-5.

¹⁸³ See Pollman, *Corporate Social Responsibility*, *supra* note 81, at 13 (“In the United States, federal securities regulation requires public companies to disclose “material” risk-related information, and the SEC has recognized that material ESG risks such as related to climate change must be disclosed under standard reporting requirements.”) (citing Commission Guidance Regarding Disclosure Related to Climate Change, 75 Fed. Reg. 6290–91 (Feb. 8, 2010) (to be codified at 17 C.F.R. pts. 211, 231 & 241), <https://www.sec.gov/rules/interp/2010/33-9106.pdf>)).

¹⁸⁴ Carbon taxes and so-called “cap and trade” laws offer elegant economic solutions to this problem, because they (1) force corporations to internalize the costs of their activities; and (2) create a market in which corporations can buy and sell pollution credits, thereby improving allocative efficiency while driving down carbon emissions. See, e.g., Stavins, *supra* note 177, at 296 (arguing that “[w]hile there are tradeoffs between two alternative market-based instruments—a cap-and-trade system and a carbon tax—the best approach for the short- to medium-term in the United States is a cap-and-trade system”).

corporations to begin to internalize the problem of climate change.¹⁸⁵ Notably, if the corporation discloses poor results, and especially if they fall below industry norms, the obligation to disclose accurate facts about the corporation's contributions to climate change can incentivize the corporation to do better.¹⁸⁶

The success of the Environmental Protection Agency (EPA) disclosure rules concerning toxic chemicals, the Toxics Release Inventory (TRI), demonstrates how disclosure rules can prompt a corporation to make substantive changes:

[The TRI] program, which requires certain firms to file public annual reports regarding their use and release of listed toxic chemicals, has coincided with a dramatic reduction in the use of those chemicals and their release into the environment. These reductions have occurred through a combination of self-monitoring by firms and external monitoring of firm actions by the public, regulators, investors, and peers. Publicly traded firms have faced secondary implications of TRI reporting, including drops in stock prices and increases in borrowing and insurance costs.¹⁸⁷

Thus, where stakeholders expect corporations to meet sustainability standards, disclosure can provide the necessary catalyst for change.¹⁸⁸

Failures to disclose can be investigated and sanctioned as compliance failures. For example, the SEC investigated ExxonMobil in 2016 concerning whether "the firm's securities disclosures adequately addressed the material risks of climate change to its business, in particular with respect to how the firm valued its oil reserve assets."¹⁸⁹ The key issue

¹⁸⁵ See, e.g., RICHARD H. THALER & CASS R. SUNSTEIN, *NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS* 188–96 (2008) (describing how environmental disclosures can create the impetus for substantive reform).

¹⁸⁶ See Light, *supra* note 4, at 149 ("Stronger mandates in securities regulation to disclose environmental risks, even in the absence of a showing of financial materiality, could shed clearer light on firms' environmental decisionmaking, with the potential to provide incentives for more positive environmental behavior.").

¹⁸⁷ *Id.* at 167.

¹⁸⁸ See *id.* at 166–67 ("While informational regulation mandates the disclosure of information, it has the secondary benefit of providing incentives to those disclosing that information to change their behavior.").

¹⁸⁹ Light, *supra* note 4, at 167–68.

was whether ExxonMobil was deceiving “investors about the possibility that its assets—oil resources that remained in the ground to be extracted at some point in the future—could become ‘stranded’ if future environmental regulations precluded the firm from extracting them, or if regulations made extraction unprofitably expensive.”¹⁹⁰ Ultimately, ExxonMobil resolved the SEC investigation by agreeing “to reduce its estimate of recoverable reserves in a subsequent . . . filing by more than three billion barrels of oil equivalent, including ‘de-booking’ all the reserves it held in a Canadian oil sands project.”¹⁹¹

3. *Climate Change Disclosures*

Several scholars have recommended that the SEC create a stricter system of mandatory disclosures concerning climate change and other sustainability issues.¹⁹² In this regard, the SEC is currently considering revising corporate disclosure rules to highlight the problem of climate change and the extent to which corporations are taking steps to address it.¹⁹³ On February 24, 2021, Acting-Chair Allison Herren Lee issued a statement explaining that she had asked the SEC Division of Corporation Finance “to enhance its focus on climate-related disclosure in public company filings.”¹⁹⁴ The purpose of that initiative is to develop “a more comprehensive framework that produces consistent, comparable, and reliable climate-related disclosures.”¹⁹⁵ Such information would be useful

¹⁹⁰ *Id.* (noting that the SEC’s involvement “mirrored an earlier, separate inquiry by the New York Attorney General”).

¹⁹¹ *Id.*

¹⁹² See Jill E. Fisch, *Making Sustainability Disclosure Sustainable*, 107 GEO. L.J. 923 (2019); Ann M. Lipton, *Not Everything Is About Investors: The Case for Mandatory Stakeholder Disclosure*, 37 YALE J. ON REG. 499 (2020); Cynthia A. Williams, *The Securities Exchange Commission and Corporate Social Transparency*, 112 HARV. L. REV. 1197 (1999).

¹⁹³ The SEC previously issued interpretive guidance concerning climate change disclosures in 2010. See Commission Guidance Regarding Disclosure Related to Climate Change, 75 Fed. Reg. 6290–91 (Feb. 8, 2010) (to be codified at 17 C.F.R. pts. 211, 231 & 241), <https://www.sec.gov/rules/interp/2010/33-9106.pdf>.

¹⁹⁴ Allison Herren Lee, SEC, *Statement on the Review of Climate-Related Disclosure* (Feb. 4, 2021), <https://www.sec.gov/news/public-statement/lee-statement-review-climate-related-disclosure>.

¹⁹⁵ *Id.*

to investors who, increasingly, take into account “climate-related issues when making their investment decisions.”¹⁹⁶

On March 15, 2021, Acting-Chair Lee requested public input concerning climate change disclosure rules:

How can the Commission best regulate, monitor, review, and guide climate change disclosures in order to provide more consistent, comparable, and reliable information for investors while also providing greater clarity to registrants as to what is expected of them? Where and how should such disclosures be provided? Should any such disclosures be included in annual reports, other periodic filings, or otherwise be furnished?¹⁹⁷

Specifically, the SEC requested guidance as to whether it would be helpful to mandate disclosure of each corporation’s “efforts to evaluate or project climate scenarios, and what information from or about such internal evaluations should be disclosed to investors to inform investment and voting decisions?”¹⁹⁸ Professor Jill Fisch observed that mandatory disclosures would serve the useful purpose of creating a compliance obligation.¹⁹⁹ Others expressed concern about whether such revisions would overstep the SEC’s role in regulating markets and put the SEC in the middle of fundamental policy disputes concerning the role of the corporation in society.²⁰⁰

¹⁹⁶ *Id.*

¹⁹⁷ *Public Input Welcome on Climate Change Disclosures*, SEC (Mar. 15, 2021), <https://www.sec.gov/news/public-statement/lee-climate-change-disclosures>.

¹⁹⁸ *Id.*

¹⁹⁹ Letter from Jill E. Fisch, Univ. Pa. L. Sch., to The Honorable Gary Gensler, Chair, U.S. Securities & Exch. Comm’n 1–2 (June 3, 2021), <https://www.sec.gov/comments/climate-disclosure/cll12-8861700-240098.pdf> (“Because of the compliance issues associated with securities filings, the Commission’s disclosure regime serves an information-forcing role, increasing both the level of information that management provides to the board in connection with required disclosures and the board’s attention to those issues.”).

²⁰⁰ See Amanda Rose, *A Response to Calls for SEC-Mandated ESG Disclosure*, 98 WASH. U. L. REV. (forthcoming 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3805814; Letter from Tawny Bridgeford, Deputy Gen. Couns. & Vice President, Regul. Affs., to The Honorable Gary Gensler, Chair, U.S. Securities & Exch. Comm’n (June 11,

In response to the SEC's request for public input, Professor Erik Gerding submitted a comment that helpfully addressed objections regarding materiality. Professor Gerding emphasized the financial importance of climate change information for investors: "Investors need high quality disclosure to make comparisons among issuers and investments to understand how this risk—including the physical risk associated with climate change and the transition risk as the United States and other nations transform their economies to mitigate climate change — would affect their portfolio."²⁰¹ Professor Gerding also observed that some investors might seek information regarding risks to specific corporations, while other investors would want to know how a corporation "may be contributing to the climate change that, in turn, poses risks for the economy and individual issuers."²⁰²

The theory of the "universal owner" bolsters Professor Gerding's argument. Widely diversified holdings made possible by index funds, mutual funds, and exchange traded funds give shareholders exposure to the entire market—consequently externalities created by the activities of an individual corporation may, in fact, be internalized by the corporation's investors. For this reason, "institutional investors and asset managers that hold diversified portfolios increasingly recognize the financial benefits of mitigating climate change risk."²⁰³ Because they are exposed to systemic risks, "[u]niversal owners have direct incentives to engage in activism to reduce negative ESG operational, compliance, or other nonfinancial risks

2021), <https://www.sec.gov/comments/climate-disclosure/cll12-8911809-244413.pdf> (providing National Mining Association (NMA) Comments).

²⁰¹ Letter from Erik F. Gerding, Professor of Law & Wolf-Nichol Fellow, Univ. of Colo. Boulder, to The Honorable Gary Gensler, Chair, U.S. Securities & Exch. Comm'n (June 14, 2021), <https://www.sec.gov/comments/climate-disclosure/cll12-8916927-245052.pdf> (providing Response to Request for Public Input on Climate Change Disclosures). In addition, as Professor Gerding noted, the SEC's disclosure rules have never been strictly limited by materiality. *Id.* (citing 17 C.F.R. § 229.104 - (Item 104) Mine Safety Disclosure).

²⁰² *Id.* at 3. Professor Gerding concluded that both rationales would fall within the SEC's investor-protection mandate. *Id.* (stating that "different investors may have different reasons for wanting climate change disclosures, and this does not lessen the Commission's authority to require these disclosures").

²⁰³ Dorothy S. Lund & Elizabeth Pollman, *The Corporate Governance Machine*, 121 COLUM. L. REV. [3] (forthcoming 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3775846; Madison Condon, *Externalities and the Common Owner*, 95 WASH. L. REV. 1 (2020).

of portfolio firms”²⁰⁴ In short, to the extent the diversification thesis is accurate, investors will have reason to want each corporation to behave responsibly with respect to climate change; what matters are impacts on the market as a whole.²⁰⁵ The common owner hypothesis explains shareholder environmental activism without relaxing the assumption that shareholders are focused on maximizing profits.²⁰⁶

4. *Environmental Litigation*

Another avenue for creating and enforcing corporate compliance obligations is litigation targeting the fiduciary obligations of management. According to one commentator, fossil fuel “corporations have faced a deluge of claims in recent years.”²⁰⁷ Corporations that fail to address climate change may be found liable in court:

Climate litigation is dynamic and standards of liability are evolving. Where a court might not have intervened five years ago, courts are showing an increasing willingness to rule in favor of outcomes that lead to greater climate action. Whether due to advances in climate science, the growing weight of evidence of the economic and human rights impacts of climate change and the net zero transition, shifting societal norms on the imperative and urgency of climate action, or a combination of these factors—courts are responding. Those seeking to use the courts to accelerate climate action have celebrated a series of landmark judgments in the past 12 months.²⁰⁸

²⁰⁴ Harper Ho, *supra* note 18, at 673.

²⁰⁵ See JAMES P. HAWLEY & ANDREW T. WILLIAMS, *THE RISE OF FIDUCIARY CAPITALISM* 3–5 (2000) (identifying “universal owners” and their incentives as shareholders).

²⁰⁶ See Condon, *supra* note 203, at 12 (contending “that institutional investors are pursuing profit maximizing objectives unrelated to any personal moral agenda, but this profit maximization is directed at the portfolio, rather than firm level. Investors address negative externalities at their source, minimizing harms to their broader portfolio.”).

²⁰⁷ Benjamin, *supra* note 79, at 316 (characterizing cases, collectively, as a “second wave of corporate climate litigation”).

²⁰⁸ Cynthia A. Williams, *What the Shell Judgment Means for US Directors*, HARV. L. SCH. FORUM CORP. GOV. (July 22, 2021),

The prospects for tort liability in U.S. court are relatively low at present so long as directors abide by black-letter legal and regulatory requirements.²⁰⁹ However, it is incumbent upon directors as a matter of their fiduciary duties of loyalty and care to study the potential impact of climate change on the corporations they oversee.²¹⁰ Also, the science of climate change attribution is improving so that it is becoming increasingly possible to identify causal links between corporate pollution and climate change.²¹¹ To the extent U.S. corporations do business abroad, the standards applied by courts in other jurisdictions are directly relevant to the risk exposure of U.S. directors.²¹²

Climate change presents an existential threat and “[i]t would be remiss, in the face of these facts and these shifting societal norms, to assume that courts in the U.S. and across the world will stand down.”²¹³ Tort exposure may be particularly salient for “oil and gas companies, companies in other high-emitting industries, or companies that operate infrastructure or fixed assets highly vulnerable to the effects of climate change in circumstances where there is a high risk of consequent loss and damage.”²¹⁴ Even if environmental litigants do not prevail in court, they can contribute to the momentum for legal intervention.²¹⁵

<https://corpgov.law.harvard.edu/2021/07/22/what-the-shell-judgment-means-for-us-directors/>.

²⁰⁹ See, e.g., Donald A. Kysar, *What Climate Change Can Do About Tort Law*, 41 ENVTL. L. 1, 3–4 (2011) (characterizing climate change as a “paradigmatic antitort”).

²¹⁰ Gadinis & Miazad, *supra* note 6, at 1466 (“[D]eveloping . . . a mechanism for early risk discovery and prevention is an imperative for directors and officers, who should find themselves in bad faith if they fail to act.”).

²¹¹ See Benjamin, *supra* note 79, at 325.

²¹² Williams, *supra* note 208.

²¹³ *Id.*

²¹⁴ Williams, *supra* note 208; Benjamin, *supra* note 79, at 325 (stating that fossil fuel corporations’ “deceptive approach to climate change, combined with their substantial presence in the value chain and high exposure to climate risk, makes them ‘prime litigation targets’”) (citation omitted).

²¹⁵ Benjamin Ewing & Douglas A. Kysar, *Prods and Pleas: Limiting Government in an Era of Unlimited Harm*, 121 YALE L.J. 350 (2011); Benjamin *supra* note 79, at 318 (“Even if these renewed litigation efforts experience setbacks or are ultimately unsuccessful, corporations are likely to be the subject of increased regulatory and public scrutiny as a result.”).

5. *Shareholder Activists*

With very limited exceptions, corporate governance decisions are made by the board of directors or, on a day-to-day basis, by corporate officers.²¹⁶ Shareholders do not play a direct decision-making role.²¹⁷ In recent years, however, shareholder activists have used the proxy solicitations circulated in advance of annual shareholder meetings to make numerous proposals concerning climate change.²¹⁸ Shareholder proposals allow “shareholders to put items on the agenda of the annual meeting.”²¹⁹ Those proposals “are often used to seek ESG and climate disclosure.”²²⁰ For example, “during the 2019 proxy season, more than half of the shareholder proposals brought involved ESG issues, including topics such as disclosing climate change risk and increasing board diversity.”²²¹ Shareholder objectives have included “disclosure of climate risk, suspension of lobbying efforts to fight carbon regulation, and commitments to clear emissions reduction targets.”²²²

These proposals have not been empty gestures. Activists have achieved success, either winning majority shareholder votes or negotiating to withdraw proposals in exchange for concessions from the board of directors.²²³ For example, “in 2017 and 2018 the world’s largest asset managers joined in votes against the advice of the boards of five major energy companies, successfully passing climate resolutions with majority support.”²²⁴ The string of recent victories has been made possible by “a

²¹⁶ See ROBERT CHARLES CLARK, *CORPORATE LAW* 105 (1986) (stating that “directors . . . have the formal legal power to manage the corporation”).

²¹⁷ For this reason, we have classified shareholder activism as an external mechanism for motivating corporations to take on climate mitigation responsibilities.

²¹⁸ Condon, *supra* note 203, at 4.

²¹⁹ Cynthia A. Williams & Donna M. Nagy, *ESG and Climate Change Blind Spots: Turning the Corner on SEC Disclosure*, 99 TEX. L. REV. 1453, 1466 (2021).

²²⁰ *Id.*

²²¹ Lund & Pollman, *supra* note 203, at 42; Jennifer Hiller & Shadia Nasralla, *Five Oil Majors Face 2019 Climate Target Pressure by Investors*, REUTERS (Dec. 19, 2018), <https://www.reuters.com/article/us-chevron-shareholders-resolution/five-oil-majors-face-2019-climate-target-pressure-by-investors-idUSKBN1OI14V>.

²²² Condon, *supra* note 203, at 4.

²²³ See Lund & Pollman, *supra* note 203.

²²⁴ Condon, *supra* note 203, at 4.

fundamental shift . . . amongst global and U.S. institutional investors and asset managers such as BlackRock, Vanguard, State Street , and Goldman Sachs.”²²⁵ Institutional shareholders now recognize that climate risks can affect the bottom line.²²⁶

Among other concessions, corporations have agreed to put climate change experts on corporate boards.²²⁷ ExxonMobil, for example, agreed to put a climate scientist on its board in 2017.²²⁸ By 2020, “17% of all public company boards [included] at least one environmental sustainability expert as a director.”²²⁹ Also, “in response to a shareholder proposal requesting a public report regarding the impact of climate change on the firm, ExxonMobil indicated in December 2017 that it would discuss ‘energy demand sensitivities, implications of two degree Celsius scenarios, and positioning for a lower-carbon future’ in subsequent disclosures.”²³⁰

Shareholder proposals are not binding, but they matter—corporations will take pains to avoid negative publicity, which can damage the value of the brand and, in extreme cases, lead to boycotts. Corporations that ignore investor preferences as documented by shareholder proposals may see their stock price drop and their cost of capital go up. Ultimately, shareholders have the power to elect the board, and a board that ignores shareholder proposals may face a proxy battle for control. If this were an easy path, one would expect to see more contested elections, assuming also that climate change proposals can succeed on the merits. In fact, contested elections are rare because a proxy battle for shareholder votes is expensive to wage and incumbent directors can transmit their message to shareholders at the corporation’s expense, giving them a loud

²²⁵ Williams & Nagy, *supra* note 214, at 1453.

²²⁶ According to Larry Fink, BlackRock’s CEO, the perception that climate change matters is producing a “fundamental reshaping of finance.” Larry Fink, *A Fundamental Reshaping of Finance*, BLACKROCK (2020), <https://www.blackrock.com/corporate/investor-relations/2020-larry-fink-ceo-letter> [<https://perma.cc/S9WE-3DHP>].

²²⁷ Gadinis & Miazad, *supra* note 6, at 1422 (“Asset managers like BlackRock and State Street and pension funds like CalPERS are pushing for creating ‘climate-competent boards’ by recruiting directors with related backgrounds.”).

²²⁸ *Id.*

²²⁹ *Id.*

²³⁰ Light, *supra* note 4, at 167–68. For a list of possible shareholder proposals concerning climate change, see McDonnell et al., *supra* note 63, at 340–41.

megaphone.²³¹ Also, large institutional investors with the ability to undertake such efforts may lack the incentives or the competence to do so.²³²

Despite these challenges, an insurgent group led by the investment firm Engine No. 1 recently succeeded in replacing two Exxon Mobil directors. Engine No. 1 got its way “based largely on the strength of its argument that failing to plan for the impact of climate change could spell the demise of the business.”²³³ Although insurgent activists have not taken full control of the board, their demonstrated ability to replace incumbent directors sent a powerful message and is likely to spur Exxon’s management to give greater weight to climate change considerations.

ExxonMobil’s example shows that investors can push corporations to take on greater climate change responsibilities even if they are motivated primarily by financial considerations. To be sure, it is possible that other investors will advocate for corporations to drop climate change goals and focus on increasing short-term profits. That is, “[l]ooking to shareholders as a source of corporate accountability may also be misguided because shareholders are perhaps as much to blame as corporate boards for . . . excessive risk-taking.”²³⁴ This concern is enhanced to the extent activist hedge funds seek to compel managers to prioritize investor returns

²³¹ See BAINBRIDGE, *supra* note 17, at 483 (“A would-be insurgent’s obstacles are legion.”).

²³² See Ronald J. Gilson & Jeffrey N. Gordon, *The Agency Costs of Agency Capitalism: Activist Investors and the Revaluation of Governance Rights*, 113 COLUM. L. REV. 863, 868–89 (2013) (critiquing “efforts in jurisdictions as different as the European Union, the United Kingdom, and Israel . . . to harness institutional investors as ‘stewards,’ that is, as active monitors of long-term company performance”). According to Gilson and Gordon, “intermediary institutional investors [have] little incentive to play this role; as a result, the institutions largely lack the competence to undertake it.” *Id.* at 869.

²³³ Jessica Camille Aguirre, *The Little Hedge Fund Taking Down Big Oil*, N.Y. TIMES MAG., June 23, 2021, at 47. The core argument was “that, given mounting pressure from society and governments to decarbonize the global economy, it would be strategically smarter for Exxon Mobil to be part of an energy transition, rather than letting itself be outstripped by other companies innovating to meet demand for low-carbon power.” *Id.*

²³⁴ Harper Ho, *supra* note 18, at 652 (citing William W. Bratton & Michael L. Wachter, *The Case Against Shareholder Empowerment*, 158 U. PA. L. REV. 653, 659 (2010)).

over other objectives.²³⁵ Thus, appreciation for the role shareholders can play in creating momentum toward climate change mitigation should be tempered by an appreciation that shareholder activism is a double-edged sword.

V. CONCLUSION

Climate change has arrived.²³⁶ Preventing a truly catastrophic rise in global temperature requires transformation of the global economy by the middle of the century.²³⁷ Corporations must commit to doing what is necessary to protect the planet. Vague promises and half-measures are not enough. For this reason, the strictures of a compliance-centered approach are more appropriate for tackling climate change than traditional risk management or ESG.

We do not mean to suggest that adopting a compliance-oriented approach to climate change will suffice to align all forms of corporate economic activity with environmental goals. Nor is there a one-size-fits-all answer. There will inevitably be tradeoffs along the way so that immediate human needs for clothing, food, shelter, and happiness are also respected.²³⁸ Competing concerns, however, do not lessen the importance of mitigating climate change.

Corporations have the capacity to lead mitigation and adaptation efforts. Unlike individual human beings, corporations can take on projects of immense scale and have the potential to exist in perpetuity.²³⁹ Early corporations were organized to oversee the construction of cathedrals that

²³⁵ See *id.* (“The controversy over shareholder empowerment has deepened with the rise of hedge fund activism, which has sparked debate over whether those most likely to use their power are short-term investors whose strategies will cause firms to take on more risk and jeopardize long-term firm value.”).

²³⁶ See Somini Sengupta, “No One is Safe”: *Extreme Weather Batters the Wealthy World*, N.Y. TIMES, July 17, 2021 (“The extreme weather disasters across Europe and North America have driven home two essential facts of science and history: The world as a whole is neither prepared to slow down climate change, nor live with it.”).

²³⁷ See Welton, *supra* note 3, at 583.

²³⁸ See, e.g., Light, *supra* note 4, at 204 (arguing that an “absolutist” principle that environmental concerns come before all other interests would “too easily sacrifice other first-order values like human dignity or autonomy”). Also, such a principle would likely be rejected as a matter of law and policy. *Id.*

²³⁹ See Andrew A. Schwartz, *The Perpetual Corporation*, 80 GEO. WASH. L. REV. 764, 773 (identifying corporate permanence as a “defining attribute”).

their architects knew would take generations to complete.²⁴⁰ The work of building a sustainable planet will also require labor across generations, and corporations are well suited to the task. In this Article, we have argued that corporate compliance provides the necessary foundation.

²⁴⁰ For an account of early corporations in the Middle Ages, see JOHN MICKLETHWAIT & ADRIAN WOOLRIDGE, *THE COMPANY: A SHORT HISTORY OF A REVOLUTIONARY IDEA* 12–14 (2003).