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ARTICLE

The Law of the Corporation as Environmental Law

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Abstract. A firm is not a black box with a pipe sticking out of it. Firm managers make decisions with environmental consequences long before pollution comes out of a pipe or a smokestack. Corporate law governs how firms are created and the duties their managers owe to firm stakeholders. Securities regulations govern the information that firms must share with investors. Antitrust law governs how firms behave in the marketplace with respect to competitors and customers. And bankruptcy law governs how firms wind down or are reorganized when they face financial trouble. Each of these fields of positive law governing the firm has significant implications for firm behavior with respect to the environment. Yet they are not ordinarily considered part of the environmental law toolkit. To address fully the most pressing environmental problems of our time, including issues of cumulative harm like climate change, environmental law should embrace these nontraditional levers that are central to its enterprise. This Article sounds a clarion call: The law of the corporation is environmental law.

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Introduction

The corporation is ascendant. Firms are not merely the objects of activist boycotts.[1] They are becoming activists themselves. Private firms are increasingly participating in public discourse[2] to pursue social or environmental values and goals.[3] For example, the outdoor retailer Patagonia recently filed suit to challenge the federal government's decision to shrink the Bears Ears and Grand Staircase-Escalante National Monuments in Utah.[4] Many private firms have adopted different forms of private environmental governance to improve their environmental footprints, going beyond mere compliance with rules of traditional environmental law.[5] To be sure, while such environmental or social action is arguably voluntary, the legal environment in which firms operate sets the boundaries of what firm

1. *See generally* David P. Baron, *Private Politics*, 12 J. ECON. & MGMT. STRATEGY 31 (2003) (discussing the impact of activist boycotts on firm behavior); David P. Baron, *Private Politics, Corporate Social Responsibility, and Integrated Strategy*, 10 J. ECON. & MGMT. STRATEGY 7 (2001) (same); David P. Baron & Daniel Diermeier, *Strategic Activism and Nonmarket Strategy*, 16 J. ECON. & MGMT. STRATEGY 599, 600-01 (2007) (discussing "private regulation" by firms in response to activism).

2. Private firms have free speech rights, *see* First Nat'l Bank of Bos. v. Bellotti, 435 U.S. 765, 784 (1978), and can make political contributions, *see* Citizens United v. FEC, 558 U.S. 310, 365 (2010).

3. By "environmental values and goals," I mean norms of protecting the natural environment from the risk of degradation, including long-term, potentially irreversible degradation caused by the cumulative small actions of many sources. *See* Richard J. Lazarus, *Restoring What's Environmental About Environmental Law in the Supreme Court*, 47 UCLA L. REV. 703, 744-48 (2000) (identifying the unique focus of environmental law as "ecological injury" that may be catastrophic and continuing in nature, distant in space or time, uncertain, generated by multiple causes, and not easily "susceptible to monetary valuation").

4. *See* David Gelles, Patagonia v. Trump, N.Y. TIMES (May 5, 2018), https://perma.cc/GM4W-3MTY; *see also* Complaint for Declaratory and Injunctive Relief, Utah Dine Bikeyah v. Trump, No. 1:17-cv-02605 (D.D.C. Dec. 6, 2017), 2017 WL 6049363.

5. Private environmental governance comprises the "traditionally 'governmental' functions of environmental standard setting and enforcement that private actors, including business firms and non-governmental organizations (NGOs), adopt to address environmental concerns." Sarah E. Light & Eric W. Orts, *Parallels in Public and Private Environmental Governance*, 5 MICH. J. ENVTL. & ADMIN. L. 1, 3 (2015); *see also* Sarah E. Light, *The New Insider Trading: Environmental Markets Within the Firm*, 34 STAN. ENVTL. L.J. 3, 6 & n.6 (2015) [hereinafter Light, *Insider Trading*] (discussing private carbon fees and emissions trading); Michael P. Vandenbergh, *Private Environmental Governance*, 99 CORNELL L. REV. 129, 133 (2013) (arguing that private environmental governance is a form of environmental law). *See generally* MICHAEL P. VANDENBERGH & JONATHAN M. GILLIGAN, BEYOND POLITICS: THE PRIVATE GOVERNANCE RESPONSE TO CLIMATE CHANGE (2017) (examining private environmental governance initiatives to address climate change).

managers may do, what they must do, what they have incentives to do, what they have incentives not to do, and what they are prohibited from doing.[6]

Traditionally, environmental law scholarship has focused on a set of canonical federal statutes adopted or amended by Congress between 1970 and 1990[7] as the heart of the positive law[8] that shapes firm behavior by addressing environmental externalities.[9] This focus is consistent with the view that there is (and ought to be) a division of labor between firms and markets on the one hand, and public environmental law and regulation on the other. In other words, 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.[10]

This Article questions this division of labor and argues that the field of environmental law should embrace a broader set of legal doctrines that are critical to its enterprise. In light of the significant impact that firms can have on the environment (often, though not always, when they are organized as publicly traded corporations), this Article argues that the law governing the corporation throughout its life cycle—corporate law, securities regulation, antitrust law, and bankruptcy law—should be understood as a fundamental part of environmental law. Firm managers make decisions with profound environmental consequences long before pollution comes out of a pipe or

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6. *Cf.* NEIL GUNNINGHAM ET AL., SHADES OF GREEN: BUSINESS, REGULATION, AND ENVIRONMENT 35-38 (2003) (suggesting that a firm's "license to operate" sets boundaries within which regulatory, economic, and social demands influence firm behavior).

7. *See* Todd S. Aagaard, *Environmental Law Outside the Canon*, 89 IND. L.J. 1239, 1240-41 (2014) (identifying the "canonical" federal environmental statutes). For the six canonical statutes, see notes 45-50 below.

8. Positive law refers to law that has been enacted in "codes, statutes, and regulations that are applied and enforced in the courts." *Positive Law*, BLACK'S LAW DICTIONARY (10th ed. 2014). I focus here on environmental statutes and regulations that address pollution control, rather than those that address natural resources protection or land use.

9. Negative externalities are the social costs that a polluter (or any social actor) imposes on others, or costs that the producer does not fully bear or "internalize." Economist Arthur Pigou argued that a tax could force social actors to internalize negative externalities. *See* A.C. PIGOU, THE ECONOMICS OF WELFARE 185-88, 192-93 (4th ed. reprt. 1960) (discussing how "the State" can impose "bounties and taxes" to "remove the divergence" between "private and social net product"). Ronald Coase argued instead that in the absence of transaction costs and with perfect information, parties can bargain efficiently to achieve an optimal allocation of resources. *See* R.H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1, 6-8 (1960).

10. *Cf.* Milton Friedman, *A Friedman Doctrine—The Social Responsibility of Business Is to Increase Its Profits*, N.Y. TIMES, Sept. 13, 1970, § 6 (Magazine), at 32, 33 (arguing that corporate actions to promote "general social interest[s]" impose an unrepresentative tax on shareholders).

smokestack as an externality.[11] Corporate law governs how firms are created and the duties that managers owe to firms' different constituencies.[12] Securities law governs the information that firms must disclose to investors.[13] Antitrust law governs how firms behave in the marketplace with respect to their competitors and to consumers.[14] Bankruptcy law governs how firms wind down or reorganize when faced with financial trouble, as well as their ability to discharge their pre-petition legal obligations.[15] These fields of law have significant implications not only for whether firms comply in full with public environmental law, but also for whether they go beyond compliance to exhibit environmental leadership through private environmental governance. A broader and more pluralistic understanding of environmental law that includes these fields governing corporate decisionmaking and market architecture can yield solutions to enduring problems that traditional federal environmental law has been unable to solve on its own.

In focusing on fields of law governing the corporation throughout its life cycle, this Article builds on and extends beyond a body of work by scholars who have observed how environmental values and goals have permeated, or been embedded expressly within, areas of positive law outside of the traditional environmental law statutes, such as tax law, property law, administrative law, and civil rights law, among others.[16] It likewise builds on work by many

11. *Cf.* Cary Coglianese & Jennifer Nash, *Management-Based Strategies: An Emerging Approach to Environmental Protection*, *in* LEVERAGING THE PRIVATE SECTOR: MANAGEMENT-BASED STRATEGIES FOR IMPROVING ENVIRONMENTAL PERFORMANCE 3, 6 (Cary Coglianese & Jennifer Nash eds., 2006) ("Policymakers and business leaders increasingly recognize that what goes on inside the black box of the organization is of critical importance for overall environmental quality.").

12. *See infra* Parts III.C-.D.

13. *See infra* Part III.A.1.

14. *See infra* Parts III.A.2, III.B.

15. *See infra* Part III.E.

16. *See infra* Part I.B; *see also* RICHARD J. LAZARUS, THE MAKING OF ENVIRONMENTAL LAW 113-16 (2004); Aagaard, *supra* note 7, at 1264-68 (arguing that "embedded" environmental law exists in federal statutes outside of the environmental law canon); Richard J. Lazarus, *Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine*, 71 IOWA L. REV. 631, 658-91 (1986) [hereinafter Lazarus, *Changing Conceptions*] (describing how environmental values have infused the law of standing, property law, and administrative law, among other areas); Richard J. Lazarus, *Meeting the Demands of Integration in the Evolution of Environmental Law: Reforming Environmental Criminal Law*, 83 GEO. L.J. 2407, 2415-20 (1995) [hereinafter Lazarus, *Meeting the Demands*] (discussing the "assimilation" of environmentalism into many categories of legal rules, but noting the lack of integration of environmental values into criminal law); Richard J. Lazarus, *Pursuing "Environmental Justice": The Distributional Effects of Environmental Protection*, 87 NW. U. L. REV. 787, 853-55 (1993) [hereinafter Lazarus, *Pursuing "Environmental Justice"*] (discussing how civil rights laws can promote environmental justice); Richard J. Lazarus, Essay, *Putting the Correct "Spin"*

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scholars who have sought to expand our understanding of environmental law to incorporate a more nuanced view of the firm's role as a regulator or coparticipant in regulation with public institutions.[17] In my own prior work, I have argued that environmental regulatory programs can be fragmented across institutions beyond the Environmental Protection Agency (EPA).[18] Such institutions include federal agencies that have primary missions other than to promote environmental values; state and local governments; and private institutions like firms, nongovernmental organizations (NGOs), and industry associations. Yet to date, even this scholarship on environmentalism beyond environmental law has not offered an in-depth, holistic analysis of the positive law governing the corporation throughout its life cycle as a form of environmental law.[19]

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on Lucas, 45 STAN. L. REV. 1411, 1421-25 (1993) (discussing the relationship among environmental values, property law, and the Takings Clause).

17. *See, e.g.*, Cary Coglianese & David Lazer, *Management-Based Regulation: Prescribing Private Management to Achieve Public Goals*, 37 LAW & SOC'Y REV. 691, 696-700 (2003) (describing the use of "management-based regulation" in food safety, industrial safety, and pollution prevention); Cary Coglianese, *The Managerial Turn in Environmental Policy*, 17 N.Y.U. ENVTL. L.J. 54, 54-60 (2008) (discussing how environmental law can encourage firms to adopt environmental management systems); Daniel C. Esty, *Red Lights to Green Lights: From 20th Century Environmental Regulation to 21st Century Sustainability*, 47 ENVTL. L. 1 (2017) (advocating a shift in environmental governance to focus on positive goal-setting, not negative controls); Jody Freeman & Daniel A. Farber, *Modular Environmental Regulation*, 54 DUKE L.J. 795, 797-98 (2005) (noting that many tools at multiple levels of government are needed to protect the environment); Jody Freeman, *The Private Role in Public Governance*, 75 N.Y.U. L. REV. 543 (2000) (observing the pervasive role of private actors in public administration and examining the consequences for accountability); Eric W. Orts, *Reflexive Environmental Law*, 89 NW. U. L. REV. 1227 (1995) (identifying the European Union's approach to encouraging firms to adopt their own environmental management systems as "reflexive law"); Vandenbergh, *Private Environmental Governance*, *supra* note 5, at 133 (arguing that private environmental governance is a form of law); Michael P. Vandenbergh, *The Private Life of Public Law*, 105 COLUM. L. REV. 2029 (2005) [hereinafter Vandenbergh, *Private Life*] (discussing how corporate transactions allocate environmental legal responsibility).

18. *See* Sarah E. Light, *Regulatory Horcruxes*, 67 DUKE L.J. 1647, 1655-62 (2018) (discussing how federal regulators can fragment environmental regulatory programs across other institutions, but not focusing on the law of the corporation). For related work, see Sarah E. Light, *The Military-Environmental Complex*, 55 B.C. L. REV. 879 (2014) (arguing that the Department of Defense's promotion of climate-positive technological innovation is an important environmental regulatory tool); and Light & Orts, *supra* note 5 (arguing that private environmental governance can complement public environmental law, but not addressing the influence of corporate or business law on private governance). *See also* Light, *Insider Trading*, *supra* note 5.

19. Richard Lazarus has come the closest in this regard, arguing that modern environmentalism has led to the "[g]reening" of many fields of U.S. law, and mentioning, but not discussing in depth, business law fields like corporate law, securities law, and bankruptcy law. *See* LAZARUS, THE MAKING OF ENVIRONMENTAL LAW, *supra* note 16, at 113-16; *cf. id.* at 188 (mentioning the underutilization of

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To the extent that scholars have examined the connection between any one of these fields of corporate or business law[20] and the environment, they have tended to focus on each field in a siloed fashion—what Judge Frank Easterbrook would call a "law and" approach.[21] For example, many scholars of corporate law have examined the social responsibility of firms under principles of corporate law, including their environmental responsibility.[22]

Securities and Exchange Commission (SEC) environmental disclosure rules). For a discussion of the interplay between the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and principles of limited liability for corporate parents in *United States v. Bestfoods*, 524 U.S. 51 (1998), see Lazarus, *supra* note 3, at 757-59. I categorize this relationship as a "reversal." *See infra* note 99.

20. As used in this Article, the term "business law" encompasses the fields of securities regulation, antitrust law, and bankruptcy law. These fields, in addition to state corporate law, influence the behavior of firms in the ways I discuss below. Although tax law clearly affects firms' environmental performance, it is not underappreciated in the environmental law literature. For work exploring this relationship, see, for example, Reuven S. Avi-Yonah & David M. Uhlmann, *Combating Global Climate Change: Why a Carbon Tax Is a Better Response to Global Warming than Cap and Trade*, 28 STAN. ENVTL. L.J. 3 (2009) (discussing carbon taxes); and Gilbert E. Metcalf & David Weisbach, *The Design of a Carbon Tax*, 33 HARV. ENVTL. L. REV. 499 (2009) (same). And while patent law governs incentives to develop new technologies with environmental implications, I omit it here because it applies broadly, including to entities that are not firms. For discussions of patents and climate change, see generally Carolyn Abbot & David Booton, *Using Patent Law's Teaching Function to Introduce an Environmental Ethic into the Process of Technical Innovation*, 21 GEO. INT'L ENVTL. L. REV. 219 (2009); Natalie M. Derzko, *Using Intellectual Property Law and Regulatory Processes to Foster the Innovation and Diffusion of Environmental Technologies*, 20 HARV. ENVTL. L. REV. 3 (1996); and F. Scott Kieff, Essay, *Patents for Environmentalists*, 9 WASH. U. J.L. & POL'Y 307 (2002).

21. *See* Frank H. Easterbrook, *Cyberspace and the Law of the Horse*, 1996 U. CHI. LEGAL F. 207, 207-08 (critiquing the proliferation of law school courses on "Law and" another field for failing to illuminate fundamental principles of law); *see also* Aagaard, *supra* note 7, at 1263 & n.147 (distinguishing "[e]mbedded environmental laws" from "mere[] overlap," such as when "[b]ankruptcy law . . . applies in circumstances in which environmental law also applies," a fact that "does not by itself transform bankruptcy laws into environmental laws").

22. *See, e.g.*, Margaret M. Blair & Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 VA. L. REV. 247, 299-305 (1999) (discussing the responsibility of firms to a wider class of stakeholders); Einer R. Elhauge, *Corporate Managers' Operational Discretion to Sacrifice Corporate Profits in the Public Interest*, *in* ENVIRONMENTAL PROTECTION AND THE SOCIAL RESPONSIBILITY OF FIRMS: PERSPECTIVES FROM LAW, ECONOMICS, AND BUSINESS 13, 13-14 (Bruce L. Hay et al. eds., 2005) (arguing that corporate managers have "considerable implicit and explicit discretion to sacrifice profits in the public interest"); Judd F. Sneirson, *Green Is Good: Sustainability, Profitability, and a New Paradigm for Corporate Governance*, 94 IOWA L. REV. 987, 1017-20 (2009) (discussing B Corporations and an early effort in Oregon to authorize corporations to act in an environmentally and socially responsible manner); Perry E. Wallace, *Climate Change, Corporate Strategy, and Corporate Law Duties*, 44 WAKE FOREST L. REV. 757 (2009) (addressing Delaware corporate law and securities regulation as separate fields with environmental implications, but concluding that nonlegal influences will prove more influential on firm behavior). For an account of the legal bases for the capacity of firms

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Several environmental law scholars have discussed the implications of specific U.S. Supreme Court cases or legal doctrines at the intersection of environmental law and individual fields such as bankruptcy law or corporate law.[23] A few scholars have examined the limiting implications of antitrust law for private industry collective action with respect to common pool resources.[24] Others have examined environmental disclosure requirements under securities regulations.[25] A robust discussion on the relationship between the firm and the

to self-govern, see generally ERIC W. ORTS, BUSINESS PERSONS: A LEGAL THEORY OF THE FIRM 9-108 (2013).

23. On environmental law and bankruptcy law, see, for example, Douglas G. Baird & Thomas H. Jackson, Comment, Kovacs *and Toxic Wastes in Bankruptcy*, 36 STAN. L. REV. 1199 (1984) (discussing the effects of bankruptcy on prebankruptcy obligations to perform environmental cleanup); and Anne M. Lawton & Lynda J. Oswald, *Scary Stories and the Limited Liability Polluter in Chapter 11*, 65 WASH. & LEE L. REV. 451, 453-54 (2008) (examining whether and how firms use bankruptcy to escape environmental liability).

    On environmental law and corporate law, see, for example, Lazarus, *supra* note 3, at 758-59 (arguing that the Supreme Court prioritized corporate law limited liability rules over environmental values in *Bestfoods*); Lynda J. Oswald & Cindy A. Schipani, *CERCLA and the "Erosion" of Traditional Corporate Law Doctrine*, 86 NW. U. L. REV. 259 (1992) (arguing, before *Bestfoods*, that decisions interpreting CERCLA did not erode traditional corporate law principles of limited liability); and Vandenbergh, *Private Life*, *supra* note 17, at 2079 (arguing that the Court in *Bestfoods* rejected the idea that CERCLA required corporate law to "be read to minimize the externalization of environmental liabilities").

24. *See* Jonathan H. Adler, *Conservation Through Collusion: Antitrust as an Obstacle to Marine Resource Conservation*, 61 WASH. & LEE L. REV. 3 (2004) (identifying a conflict in the fisheries context between antitrust law's promotion of competition and the environmental goal of conservation through collective action); Inara Scott, *Antitrust and Socially Responsible Collaboration: A Chilling Combination?*, 53 AM. BUS. L.J. 97 (2016) (arguing that the threat of antitrust liability "chills" certain forms of environmental collaboration in private industry); *cf.* Barak D. Richman, *The Antitrust of Reputation Mechanisms: Institutional Economics and Concerted Refusals to Deal*, 95 VA. L. REV. 325 (2009) (advocating against a per se antitrust rule that would bar horizontal industry coordination, but not discussing coordination in the environmental context).

25. For the seminal work in this area, see Cynthia A. Williams, *The Securities and Exchange Commission and Corporate Social Transparency*, 112 HARV. L. REV. 1197 (1999) (arguing that the legislative history of securities law supports broader disclosure rules for environmental and social issues). *See also* James W. Coleman, *How Cheap Is Corporate Talk?: Comparing Companies' Comments on Regulations with Their Securities Disclosures*, 40 HARV. ENVTL. L. REV. 47 (2016) (studying empirically the differences between firms' comments to agencies about proposed regulations and their messages to investors in securities disclosures); Esty, *supra* note 17, at 54-57 (observing that investors increasingly care about sustainability, and arguing that greater transparency about firms' sustainability metrics will enhance environmental performance); Jill E. Fisch, *Making Sustainability Disclosure Sustainable*, 107 GEO. L.J. (forthcoming 2019) (manuscript at 7), https://perma.cc/X7C9-VWPX (proposing a required "sustainability discussion and analysis" section in firms' annual reports to address current weaknesses in SEC rules on sustainability disclosure); Virginia Harper Ho, *Nonfinancial Risk Disclosure and the Costs of Private Ordering*, 55 AM. BUS. L.J. 407, 443-56 (2018) (arguing that public law is superior to private governance when it comes to disclosure of certain

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environment has developed within management and business ethics scholarship about the duties that firm managers owe to different stakeholders to protect the environment, and the institutional differences that influence firms' environmental decisionmaking.[26]

This Article advances the discussion by viewing these fields of corporate and business law together as a single phenomenon with significant implications for firms' environmental decisionmaking. Unifying these otherwise disparate legal doctrines into a single constellation yields four insights.

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nonfinancial information, including environmental impact); Perry E. Wallace, *Disclosure of Environmental Liabilities Under the Securities Laws: The Potential of Securities-Market-Based Incentives for Pollution Control*, 50 WASH. & LEE L. REV. 1093 (1993) (discussing the history of SEC environmental disclosure rules and accounting standards, and observing that increasing investor interest in environmental performance creates a new "lever" of market-based incentives for better performance).

26. For several significant contributions to the extensive business ethics literature, see Thomas Donaldson & Lee E. Preston, *The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications*, 20 ACAD. MGMT. REV. 65 (1995) (discussing the descriptive, instrumental, normative, and managerial implications of stakeholder theory); R. Edward Freeman, *A Stakeholder Theory of the Modern Corporation*, *in* THE CORPORATION AND ITS STAKEHOLDERS: CLASSIC AND CONTEMPORARY READINGS 125 (Max B.E. Clarkson ed., 1998) (arguing for a reconceptualization of the firm as owing duties to a broader class of stakeholders than just its shareholders); Eric W. Orts & Alan Strudler, *The Ethical and Environmental Limits of Stakeholder Theory*, 12 BUS. ETHICS Q. 215, 225 (2002) (arguing that stakeholder theory cannot capture the "external, non-stakeholder legal and moral obligations" of firm managers, which include protecting the environment); and Mark Starik, *Should Trees Have Managerial Standing?: Toward Stakeholder Status for Non-Human Nature*, 14 J. BUS. ETHICS 207 (1995) (arguing that nature is a stakeholder of the firm).

For significant contributions to the extensive management literature on what motivates firm managers to adopt environmental management practices, see Magali A. Delmas & Michael W. Toffel, *Organizational Responses to Environmental Demands: Opening the Black Box*, 29 STRATEGIC MGMT. J. 1027 (2008) (examining differences in how external influences are channeled through firms); Magali Delmas & Michael W. Toffel, *Stakeholders and Environmental Management Practices: An Institutional Framework*, 13 BUS. STRATEGY & ENV'T 209, 210 (2004) (arguing that institutional differences across firms influence their environmental management responses to stakeholder pressures); Andrew A. King & Michael J. Lenox, *Does It* Really *Pay to Be Green?: An Empirical Study of Firm Environmental and Financial Performance*, J. INDUS. ECOLOGY, Jan. 2001, at 105 (arguing that "when" it pays for a firm to be environmentally conscious is a more important question than "whether" such behavior pays); Andrew A. King & Michael J. Lenox, *Industry Self-Regulation Without Sanctions: The Chemical Industry's Responsible Care Program*, 43 ACAD. MGMT. J. 698 (2000) [hereinafter King & Lenox, *Self-Regulation*] (suggesting that opportunism by firms is a significant barrier to environmental self-regulatory regimes in the absence of strong sanctions); and Thomas P. Lyon & John W. Maxwell, *Corporate Social Responsibility and the Environment: A Theoretical Perspective*, 2 REV. ENVTL. ECON. & POL'Y 240 (2008) (examining how different forces affect firms' incentives to adopt environmental and social responsibility initiatives).

First, a unified approach yields a comprehensive analytical framework for understanding how these disparate fields coalesce into five primary categories of influence on firms' environmental decisionmaking. Law governing the corporation can create mandates, incentives, safe harbors, disincentives, or prohibitions on environmentally positive firm behavior. A siloed approach can fail to appreciate the bigger-picture story about how these levers work in harmony with or in opposition to one another. Manipulating a single lever—for example, whether securities regulations require firms to disclose to investors those climate risks that are environmentally, but not financially, material to the firm—might be necessary, but not sufficient, to induce firm managers to prioritize environmental values and goals more explicitly in their decisionmaking. A failure to address simultaneously the tension between bankruptcy law's principle of giving debtors a "fresh start" and environmental law's "polluter pays" principle, or the antitrust implications of participating in private standard setting, may minimize or undermine the value of a single legal change. These fields should be considered holistically.

Second, this Article contends that the influence of these fields as a force for positive environmental change can and should be made stronger. Consistent with this approach, this Article proposes a normative *environmental priority principle* that should guide Congress, state legislatures, the executive branch, and the courts in adopting, amending, interpreting, and enforcing these nontraditional levers on firms' environmental decisionmaking.[27] In other words, this is not a descriptive account of "corporate law *and* the environment" or "antitrust law *and* the environment."[28] Rather than merely stating that the environment is one factor to be balanced with others, the priority principle prioritizes promoting environmental values and goals, acknowledging the maxim of sustainable development that requires providing present and future generations with basic environmental necessities like clean and sufficient water, food, and a habitable planet.[29]

27. *See infra* Part IV.A.

28. *Cf.* Easterbrook, *supra* note 21, at 207-08 (critiquing a tendency in both legal scholarship and education toward "multidisciplinary dilettantism" rather than the study of "general rules" in core fields of law like torts, property, and commercial transactions); J.B. Ruhl & James Salzman, *Climate Change Meets the Law of the Horse*, 62 DUKE L.J. 975, 985 (2013) (arguing that a "law of climate change adaptation" could develop as a "procedural overlay" across other legal fields).

29. *See infra* Part IV.A (discussing the environmental priority principle); *cf.* World Comm'n on Env't & Dev., Our Common Future, ¶ 27, U.N. Doc. A/42/427, annex (1987) [hereinafter WCED Report] (defining development as sustainable when "it meets the needs of the present without compromising the ability of future generations to meet their own needs"); DOUGLAS A. KYSAR, REGULATING FROM NOWHERE: ENVIRONMENTAL LAW AND THE SEARCH FOR OBJECTIVITY 150-75 (2010) (arguing that a precautionary approach to environmental law and sustainability requires including future generations within the community of membership).

Third, corporate and business law can collectively fill gaps in addressing problems that traditional environmental law has been ill-equipped to address alone. The most important of these is the issue of cumulative harms like climate change.[30] Traditional environmental laws—pollution control statutes like the Clean Air Act,[31] the Clean Water Act,[32] and others—have made significant progress in addressing many environmental concerns, including local air and water quality as well as the cleanup of hazardous waste sites in local communities.[33] Yet enormous challenges remain, including global climate change, deforestation, overfishing, agricultural runoff, and nonpoint source water pollution, to name just a few.[34] Many of these massive problems arise from the aggregation of thousands or even millions of small actions.[35] But traditional environmental law has had great difficulty addressing cumulative harms.[36] Cumulative harms sit uneasily within the traditional paradigm of

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30. *Cf.* Eric Biber, *Law in the Anthropocene Epoch*, 106 GEO. L.J. 1 (2017) (identifying cumulative harms, such as climate change, as significant challenges that will force change in constitutional, criminal, tort, property, administrative, and international law, but not addressing the law of the corporation); 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, 75-79 (2010) (identifying climate change as a "complicated" case of cumulative harm).

31. Clean Air Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676 (codified as amended in scattered sections of 42 U.S.C.).

32. Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816 (codified as amended at 33 U.S.C. §§ 1251-1388 (2017)).

33. *See, e.g.*, CHRISTOPHER VAN ATTEN & LILY HOFFMAN-ANDREWS, THE CLEAN AIR ACT'S ECONOMIC BENEFITS: PAST, PRESENT AND FUTURE (2010), https://perma.cc/5CXP-LWRH (summarizing studies); *Air Pollutant Emissions Trends Data*, U.S. ENVTL. PROTECTION AGENCY, https://perma.cc/9JDN-6HTE (last updated July 11, 2018) (to access data, click "View the live page," then download "Average Annual Emissions" file) (providing datasets showing declines in air pollution from carbon monoxide, nitrogen oxide, PM2.5 (particulate matter 2.5 micrometers or less in diameter), sulfur dioxide, volatile organic compounds, and ammonia emissions in the decades leading up to 2017); *Our Nation's Air: Status and Trends Through 2016*, U.S. ENVTL. PROTECTION AGENCY, https://perma.cc/BD5Z-5MXJ (archived Nov. 11, 2018) (noting a 73% drop in six criteria air pollutants between 1970 and 2016).

34. *See generally* JAMES GUSTAVE SPETH, THE BRIDGE AT THE EDGE OF THE WORLD: CAPITALISM, THE ENVIRONMENT, AND CROSSING FROM CRISIS TO SUSTAINABILITY 17-66 (2008) (discussing major global environmental challenges).

35. *See* Kevin M. Stack & Michael P. Vandenbergh, *The One Percent Problem*, 111 COLUM. L. REV. 1385 (2011) (proposing that climate change can only be solved by reducing emissions from small-scale polluters, but identifying the obstacle that biases lead individuals to discount or ignore small values); *see also* Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243, 1244-45 (1968) (arguing that individuals have incentives to overuse public goods because they perceive their own negative impacts to be small).

36. *See* Aagaard, *supra* note 7, at 1297 (arguing that law beyond the canonical environmental statutes is critical in addressing climate change); Biber, *supra* note 30, at 22 (noting environmental law's failure to address nonpoint sources of pollution);

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environmental law, which tends to focus on controlling, reducing, or reporting significant amounts of pollution emitted from pipes and smokestacks, and cannot as easily induce the needed small changes in the behavior of many individuals and firms.

If an effectiveness gap arises as a result of too much focus on smokestacks, thresholds, and the "end-of-the-pipe" problem,[37] then looking beyond the pipe may yield new solutions. To address cumulative harms, environmental law should embrace corporate and business law doctrines that can induce incremental changes in firm behavior.[38] Different types of firms, whether publicly traded or privately held, are included within this analysis to the extent that they are bound by each category of law.[39]

Richard J. Lazarus, *Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future*, 94 CORNELL L. REV. 1153, 1184-87 (2009) (describing the challenges climate change poses for environmental lawmaking); Ruhl & Salzman, *supra* note 30, at 65 (arguing that "[c]onventional policy approaches" to address environmental problems "have proven deeply inadequate"); *cf.* Douglas A. Kysar, *What Climate Change Can Do About Tort Law*, 41 ENVTL. L. 1, 3-4 (2011) (noting that tort law is not well equipped to address climate change).

37. *See* James Salzman, *Beyond the Smokestack: Environmental Protection in the Service Economy*, 47 UCLA L. REV. 411 (1999) (advocating a regulatory shift beyond smokestacks to address cumulative environmental harm); Michael P. Vandenbergh, *From Smokestack to SUV: The Individual as Regulated Entity in the New Era of Environmental Law*, 57 VAND. L. REV. 515, 537-84 (2004) (arguing that environmental law's focus on smokestacks inadequately accounts for individual contributions to cumulative environmental harm).

38. By focusing on laws that govern the firm, I do not intend to suggest that firms are either the sole source of environmental harm or its sole solution. Individuals and government entities are likewise important contributors to cumulative environmental harm, though they are outside the scope of this Article. For scholarship focusing on other polluting entities, see generally Katrina Fischer Kuh, *Capturing Individual Harms*, 35 HARV. ENVTL. L. REV. 155 (2011) (focusing on individuals); Light, *The Military-Environmental Complex*, *supra* note 18, at 881, 887-88 (focusing on the Department of Defense); Michael P. Vandenbergh & Anne C. Steinemann, *The Carbon-Neutral Individual*, 82 N.Y.U. L. REV. 1673 (2007) (individuals); and Vandenbergh, *supra* note 37 (individuals).

39. Firms operate in different economic sectors, and can take many forms, each of which may contribute to environmental degradation. *See, e.g.*, Sarah E. Light, *Precautionary Federalism and the Sharing Economy*, 66 EMORY L.J. 333, 365-70 (2017) (observing that ride-hailing platforms aggregate the small, cumulative impacts on the environment of individual rides, while acknowledging that studies do not demonstrate conclusively whether ride-hailing platforms have resulted in an increase or decrease in emissions); Salzman, *supra* note 37 (discussing the environmental implications of the rise of the service economy). Corporate law governs all corporations, whether publicly traded or privately held, while antitrust law applies more broadly, covering noncorporate market participants as well. Securities regulations, however, govern only publicly traded firms. *See infra* text accompanying notes 114-17.

I acknowledge that some firms falling outside the scope of the law governing the corporation as defined here play a role in causing cumulative harms, such as local dry

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If firm managers in ordinary corporations 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. Small changes in how federal courts interpret antitrust law, such as acknowledging the environmental benefits of industry cooperation, could remove disincentives for meaningful cooperation aimed at addressing cumulative harms that degrade common pool resources. 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. And changes in bankruptcy law's discharge provisions could remove disincentives for full compliance with public environmental law.

Finally, the need for a more pluralistic understanding of environmental law has become all the more urgent since January 2017. Since that time, the federal government has moved to repeal or delay the implementation of numerous regulations adopted under traditional federal environmental statutes.[40] The confluence of the rise of private corporate social and environmental action with the emergence of deregulatory pressure on the EPA brings into sharp relief the question whether alternative sources of law can or should promote these environmental values and goals. Heterogeneous institutional actors—including federal agencies other than the EPA, state legislatures, and federal and state courts—enact, enforce, and interpret these corporate and business law rules. As a result, their integration into the environmental law toolkit can offer greater flexibility to address environmental problems than the narrower, more traditional set of tools used by the EPA.[41]

To be sure, in this deregulatory moment it is unlikely that all of these institutions will strengthen environmental protection through their enforcement or interpretation of corporate and business law. Thus, aspects of

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cleaners or small farms. The ideas in this Article may be extended to other areas of the law to address these regulatory targets. In other words, while the law of the corporation can supplement, improve upon, and reduce impediments to the effectiveness of traditional environmental law, I do not suggest that it can replace other forms of environmental law entirely.

40. *See Climate Deregulation Tracker*, COLUM. L. SCH. SABIN CTR. FOR CLIMATE CHANGE L., https://perma.cc/4EFR-VGCB (archived Oct. 20, 2018) (listing environmental deregulatory actions by the EPA and Congress since January 2017); *EPA Deregulatory Actions*, U.S. ENVTL. PROTECTION AGENCY, https://perma.cc/XA6H-FRBR (last updated Oct. 17, 2018) (compiling a list of deregulatory efforts); Nadja Popovich et al., *78 Environmental Rules on the Way Out Under Trump*, N.Y. TIMES (updated Dec. 19, 2018), https://perma.cc/NWQ9-ULU7.

41. *See infra* Part IV.

this approach remain aspirational. The incorporation of an environmental priority principle into these fields may proceed in stages, with actors like courts and state legislatures, which stand outside of the current deregulatory atmosphere, taking a leading role in the first instance.

This Article proceeds as follows. Part I sets the stage by examining how conceptions of environmental law have expanded over time, from a view of the firm as a target of public law regulation to a broader conception of the firm as a participant in environmental governance. It concludes with the observation that even the most nuanced accounts of the expansion of environmental law have stopped short of arguing that positive corporate and business law are themselves environmental law. Part II develops an analytical framework that categorizes the five primary ways in which corporate and business law intersect with firms' environmental decisionmaking: through mandates, incentives, safe harbors, disincentives, and prohibitions. Part III builds out this framework by offering examples of each primary type of interaction from corporate, securities, antitrust, and bankruptcy law. Part IV sets forth and defends a normative environmental priority principle requiring more explicit consideration of environmental values and goals by those institutions that interpret, enforce, and have power to amend the laws governing the corporation. Using the analytical framework developed in Part II, it offers several prescriptive recommendations consistent with this priority principle. This Article concludes by arguing that an expanded environmental toolkit takes on special importance in a deregulatory era.

I. The Generations of Environmental Law

As it has developed over time, environmental law has incorporated different regulatory tools in various combinations, and legal scholarship has recognized these heterogeneous methods of influence. However, the core narrative of the past and present of environmental law has stopped short of recognizing the important role that the fields of corporate and business law play as nontraditional levers on firms' environmental behavior. It is to this traditional narrative that I now turn.

A. The Traditional Generations

The history of environmental law is a collection of overlapping, related stories. These stories often include a narrative about successive "generations" of efforts to protect the environment.[42] Scholars disagree about the exact number

42. *See, e.g.*, Daniel C. Esty, *Revitalizing Environmental Federalism*, 95 MICH. L. REV. 570, 599-613 (1996) (using the "generation" paradigm to trace the development of environmental law); Richard J. Lazarus, Essay, *The Greening of America and the Graying of United States*

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of generations and what precisely fits into each one,[43] but the generational narrative remains powerful. Tellingly, however, this narrative omits corporate and business law.

Scholars generally agree about certain core features of this narrative. First, the locus of environmental decisionmaking shifted from state courts articulating common law principles in nuisance suits at the turn of the twentieth century to federal control by Congress in the 1970s.[44] Between 1970 and 1990, Congress adopted, and in some cases amended, the core federal environmental statutes, including the Clean Air Act,[45] the Clean Water Act,[46] the National Environmental Policy Act (NEPA),[47] the Endangered Species Act,[48] the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA),[49] and the Resource Conservation and Recovery Act (RCRA),[50] that form the heart of environmental law scholarship, education, and practice.[51] In this generation of federal control, regulatory agencies—most notably, the EPA—took a leading role in interpreting and enforcing these new environmental laws in ways that profoundly shaped the administrative state.[52]

Environmental Law: Reflections on Environmental Law's First Three Decades in the United States, 20 VA. ENVTL. L.J. 75 (2001) (discussing three "generations" of environmental law); Richard B. Stewart, Essay, *A New Generation of Environmental Regulation?*, 29 CAP. U. L. REV. 21 (2001). There were, of course, intermediate steps. *See* ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY 89 (7th ed. 2013) (identifying six stages in the development of environmental law).

43. *See, e.g.*, Zygmunt J.B. Plater, Lecture, *Environmental Law in the Political Ecosystem—Coping with the Reality of Politics*, 19 PACE ENVTL. L. REV. 423, 427 n.9 (2002) ("Is this the third generation of environmental law, or the fourth, or fifth?").

44. *See, e.g.*, Robert V. Percival, *Regulatory Evolution and the Future of Environmental Policy*, 1997 U. CHI. LEGAL F. 159, 161-67.

45. Clean Air Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676 (codified as amended in scattered sections of 42 U.S.C.).

46. Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816 (codified as amended at 33 U.S.C. §§ 1251-1388 (2017)).

47. National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852 (1970) (codified as amended at 42 U.S.C. §§ 4321-4347 (2017)).

48. Endangered Species Act of 1973, Pub. L. No. 93-205, 87 Stat. 884 (codified as amended at 16 U.S.C. §§ 1531-1544 (2017)).

49. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510, 94 Stat. 2767 (codified as amended at 42 U.S.C. §§ 9601-9675).

50. Resource Conservation and Recovery Act of 1976, Pub. L. No. 94-580, 90 Stat. 2795 (codified as amended in scattered sections of 42 U.S.C.).

51. *See* PERCIVAL ET AL., *supra* note 42, at 93-94 (listing these and other significant statutes); Aagaard, *supra* note 7, at 1240 (identifying these six statutes as forming the "canon" of environmental law).

52. *See* Vandenbergh, *Private Life*, *supra* note 17, at 2034-35 (observing the significant effect of environmental law on broader administrative law doctrine). The decision to

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After 1990, the story became one of congressional retrenchment; many scholars have pointed out that Congress has neither passed nor amended any major environmental statute since that year.[53]

Layered on top of this story of the shift from state to federal control is a second narrative about how the tools employed by federal regulators, primarily the EPA, have also shifted over time. These accounts describe a transition away from "command-and-control" regulation, a somewhat pejorative term for prescriptive rules, to market-leveraging approaches that employ price- or quantity-based mechanisms to force polluters to internalize the costs of their environmental externalities and thus reduce pollution more efficiently.[54] In other words, environmental law in the first generation (with some notable exceptions[55]) directly regulated the effluent or pollution at the end of a pipe or smokestack. The Clean Water Act's prohibition on the "discharge of any pollutant by any person,"[56] with its limitation that "discharge" includes only effluents "from any point source,"[57] exemplifies this model. Indeed, many legal scholars have critiqued first-generation environmental law for focusing too heavily on directly regulating pipes and smokestacks.[58] The second generation represented a shift to environmental law shaping markets by pricing pollution or creating emissions trading

consolidate most environmental enforcement into the EPA, rather than to leave enforcement and interpretive power fragmented across agencies, was a conscious one. *See* LAZARUS, THE MAKING OF ENVIRONMENTAL LAW, *supra* note 16, at 69.

53. *See, e.g.*, Vandenbergh, *Private Environmental Governance*, *supra* note 5, at 131. In 2016, however, Congress significantly amended the Toxic Substances Control Act. *See* Frank R. Lautenberg Chemical Safety for the 21st Century Act, Pub. L. No. 114-182, 130 Stat. 448 (2016) (codified in scattered sections of the U.S. Code). For the original Toxic Substances Control Act, see Pub. L. No. 94-469, 90 Stat. 2003 (1976) (codified as amended at 15 U.S.C. §§ 2601-2697 (2017)).

54. For a series of essays discussing the effectiveness of market-leveraging instruments as compared to more traditional regulations, see MOVING TO MARKETS IN ENVIRONMENTAL REGULATION: LESSONS FROM TWENTY YEARS OF EXPERIENCE (Jody Freeman & Charles D. Kolstad eds., 2007). *See also* Bruce A. Ackerman & Richard B. Stewart, Comment, *Reforming Environmental Law*, 37 STAN. L. REV. 1333, 1342-46 (1985) (advocating market-based mechanisms); Richard B. Stewart, *Regulation, Innovation, and Administrative Law: A Conceptual Framework*, 69 CALIF. L. REV. 1256, 1326-38 (1981) (same). *But see* Howard Latin, *Ideal Versus Real Regulatory Efficiency: Implementation of Uniform Standards and "Fine-Tuning" Regulatory Reforms*, 37 STAN. L. REV. 1267 (1985) (defending the use of prescriptive rules). Of course, even some early environmental statutes like NEPA employed nonprescriptive tools like informational regulation. *See infra* notes 122-26 and accompanying text.

55. *See, e.g.*, *infra* text accompanying notes 121-22 (discussing NEPA's information disclosure requirements).

56. 33 U.S.C. § 1311(a) (2017).

57. *Id.* § 1362(12).

58. *See* sources cited *supra* note 37.

schemes. One example of this modal shift is the 1990 adoption of emissions trading in the Clean Air Act Amendments to reduce the chemical precursors to acid rain.[59]

B. Moving Beyond the Traditional Narrative

While these scholarly narratives largely focus on the role of the state in setting and enforcing environmental standards, more recent scholarship has shifted away from an exclusive focus on the environmental law canon and the state as regulator.[60] This scholarship focuses instead on the role of private action in addressing environmental problems. Drawing on the work of Elinor Ostrom and Robert Ellickson, which analyzes the role of social norms and insider collective action in managing common pool resources,[61] this scholarship has acknowledged that 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,"[62] "collaborative governance,"[63] "responsive regulation,"[64] and "modular" environmental regulation,[65] among other monikers. Other scholarship in this vein has sought to move environmental governance inside the firm, focusing on the ways in

59. *See* Clean Air Act Amendments of 1990, Pub. L. No. 101-549, § 401, 104 Stat. 2399, 2584-631 (codified at 42 U.S.C. §§ 7651-7651o (2017)).

60. It is debatable whether this scholarship should be characterized as describing a third generation, *see* Stewart, *supra* note 42, at 151-52 (describing new methods of regulation as a "third generation strategy"), or perhaps as an effort to move away from the paradigm of generations entirely.

61. *See* ROBERT C. ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES 48-49, 57 (1991) (finding that neighbors use social norms, not legal rules, to resolve disputes); ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION 1-28 (reprt. 1992) (identifying collective action by insiders as a solution to the tragedy of the commons); Robert C. Ellickson, *Of Coase and Cattle: Dispute Resolution Among Neighbors in Shasta County*, 38 STAN. L. REV. 623, 672-85 (1986) (describing how cattle ranchers in Shasta County, California, developed social norms instead of relying on the law of nuisance or trespass); *see also* Light & Orts, *supra* note 5, at 2-12, 3 nn.2-3, 11 n.34 (arguing that the "regulator" can be a private actor); Vandenbergh, *Private Environmental Governance*, *supra* note 5, at 137-38 (same).

62. *See* Orly Lobel, *The Renew Deal: The Fall of Regulation and the Rise of Governance in Contemporary Legal Thought*, 89 MINN. L. REV. 342, 343-44 (2004).

63. *See* Jody Freeman, *Collaborative Governance in the Administrative State*, 45 UCLA L. REV. 1 (1997).

64. *See* IAN AYRES & JOHN BRAITHWAITE, RESPONSIVE REGULATION: TRANSCENDING THE DEREGULATION DEBATE (1992).

65. *See* Freeman & Farber, *supra* note 17.

which the state can encourage private actors, including private firms, to adopt environmental management systems through "reflexive law,"[66] "management-based regulation,"[67] or voluntary programs like the EPA's Performance Track.[68]

Still others have moved beyond even the public-private hybrid paradigm to examine the ways in which private actors have adopted private environmental governance.[69] Scholars have also 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 the shadow" of public regulation—but also supply-chain contract terms requiring environmental performance.[70] This recent scholarship on private environmental governance, contracting, and second-order agreements elevates the role that private firms can play in environmental governance, not merely

66. *See* Orts, *supra* note 17; *see also* Salzman, *supra* note 37.

67. *See* Coglianese & Lazer, *supra* note 17. In management-based regulation, either the state or private actors can encourage or require firms to adopt environmental management systems or other internal programs. *See* Coglianese & Nash, *supra* note 11, at 12-14, 14 fig.1-1 (offering a typology of four management-based strategies which they characterize as "regulations," "mandates," "incentives," or "pressures" depending upon whether the institution imposing the strategy is a public regulator or private institution, and whether the institution mandates or merely encourages firms to adopt the internal system). These obligations are distinct from those imposed by ordinary corporate, securities, antitrust, and bankruptcy law.

68. *See* Cary Coglianese & Jennifer Nash, *Performance Track's Postmortem: Lessons from the Rise and Fall of EPA's "Flagship" Voluntary Program*, 38 HARV. ENVTL. L. REV. 1 (2014) (surveying the EPA's voluntary programs and concluding that Performance Track failed to achieve significant environmental gains); *see also* Lyon & Maxwell, *supra* note 26, at 246 (discussing negotiations between firms and regulators over voluntary environmental agreements).

69. *See supra* note 5.

70. For more on second-order agreements, see Vandenbergh, *Private Life*, *supra* note 17. *See also id.* at 2030 ("[T]he regulatory administrative state is profoundly influenced not just by public regulations or public-private agreements entered into in lieu of public regulations, but by agreements entered into between regulated firms and other private actors in the shadow of public regulations." (citing Robert H. Mnookin & Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950, 952-56 (1979))).

For a description of supply-chain contracting as environmental governance, see Michael P. Vandenbergh, *The New Wal-Mart Effect: The Role of Private Contracting in Global Governance*, 54 UCLA L. REV. 913 (2007).

On the concept of "environmental contracts" generally, see Geoffrey C. Hazard, Jr. & Eric W. Orts, *Environmental Contracts in the United States*, *in* ENVIRONMENTAL CONTRACTS: COMPARATIVE APPROACHES TO REGULATORY INNOVATION IN THE UNITED STATES AND EUROPE 71 (Eric W. Orts & Kurt Deketelaere eds., 2001); and Eric W. Orts, *Climate Contracts*, 29 VA. ENVTL. L. REV. 197 (2011) (defending a pluralistic account of the tools needed to address climate change).

as regulatory targets complying with public environmental law, but as active participants in setting and enforcing environmental standards.

Others have sought to expand the paradigm of what constitutes environmental law while retaining a focus on public law rather than private action or social norms. For example, Todd Aagaard has identified how environmental standards have been embedded into federal statutes separate and apart from the canonical environmental statutes and regulations, and how these embedded noncanonical laws are enforced by federal agencies other than the EPA.[71] Richard Lazarus has argued that environmental values have transformed numerous fields of law through a process of assimilation and integration.[72] These include the law of standing, tort law, property law, administrative law, law governing the sovereignty of the state, and civil rights law.[73] In prior scholarship, I have argued that public law environmental regulatory programs can be fragmented beyond the EPA across federal agencies whose core missions do not include environmental protection, as well as across the states and private institutions.[74] But even these expansive accounts have failed to consider in depth the role of the law of the corporation as a form of environmental law.

C. A Heterogeneous Regulatory Toolkit

Layering the traditional narrative with the contributions of those scholars who have sought to expand beyond it yields the conclusion that environmental law is a heterogeneous field. In an influential article, Larry Lessig identified four different types, or "modalities," of influence on behavior: law, social norms, markets, and architecture.[75] Law "directs behavior" under threat of government sanction; social norms constrain behavior through "the enforcement of a community"; markets "regulate through the device of price"; and "architecture" or "features of the world—whether made, or found—restrict

71. *See* Aagaard, *supra* note 7, at 1264-65 (identifying the phenomenon of "embedded" environmental law); *see also* Lazarus, *Meeting the Demands*, *supra* note 16, at 2438-39 (noting that agencies other than the EPA "possess significant regulatory authority over environmental protection").

72. *See* Lazarus, *Meeting the Demands*, *supra* note 16, at 2415 (defining assimilation as "the process by which a new set of priorities and information simultaneously influence different legal sectors, restriking equilibria that underlie a host of legal rules in disparate contexts," and defining integration as "the evolutionary process within any one discrete area of law").

73. *See* Lazarus, *Changing Conceptions*, *supra* note 16, at 658; Lazarus, *Meeting the Demands*, *supra* note 16, at 2418-19; *see also* Lazarus, *Pursuing "Environmental Justice," supra* note 16, at 834-42.

74. *See* sources cited *supra* note 18.

75. *See* Lawrence Lessig, Essay, *The New Chicago School*, 27 J. LEGAL STUD. 661, 662-67 (1998).

and enable in a way that directs or affects behavior."[76] The law may constrain behavior directly, such as by prohibiting a bad act. But the law can also regulate behavior indirectly by shaping or regulating one of the other modalities (social norms, markets, or architecture), which then constrains behavior through its own means of influence.[77] Environmental law employs each of these means of influence both alone and in combination.

Regulators have a diverse set of tools at their disposal to promote environmental values and goals like conservation of common pool resources and the reduction or prevention of pollution.[78] They can use prescriptive rules like technology requirements, or performance standards that require firms to meet certain environmental goals. They can create property rights over common pool resources, impose market-leveraging approaches like taxes and subsidies, or adopt tradable permits for emissions. Regulators can employ informational regulation, requiring the disclosure of environmental information to the public with an eye toward providing incentives for better environmental performance. They can impose environmental standards through procurement rules or supply-chain management, or can mandate or encourage the purchase of insurance for environmentally risky activities.

To take one example, there are many ways to increase recycling and limit the use of virgin materials,[79] a concern that implicates the problem of cumulative harms. A regulator could simply legally mandate the recycling of certain products, or it could ban the use of virgin materials in production. The law could require that products procured for government use contain a minimum percentage of recycled materials in order to encourage the growth of

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76. *Id.* at 662-63. Lessig acknowledges that the categories can be interdependent. *See id.* at 663-64, 664 fig.1.

77. *See id.* at 666-67, 667 fig.2. The distinction between "direct" and "indirect" regulation is imprecise, *see id.* at 671 n.35, but a strict boundary is not central to the argument here. For more on this distinction, see PHILIPPA FOOT, *The Problem of Abortion and the Doctrine of the Double Effect* (1967), *in* VIRTUES AND VICES AND OTHER ESSAYS IN MORAL PHILOSOPHY 19 (1978).

78. *See* Light & Orts, *supra* note 5, at 13 tbl.1 (offering a taxonomy of tools of public law and private governance); Carol M. Rose, *Rethinking Environmental Controls: Management Strategies for Common Resources*, 1991 DUKE L.J. 1, 9-10 (citing Steven N.S. Cheung, *The Structure of a Contract and the Theory of a Non-Exclusive Resource*, 13 J.L. & ECON. 49, 64 (1970)) (listing four tools for managing common pool resources); James Salzman, *Teaching Policy Instrument Choice in Environmental Law: The Five P's*, 23 DUKE ENVTL. L. & POL'Y F. 363 (2013) (describing five categories of public policy instruments); *see also* Jonathan Baert Wiener, *Global Environmental Regulation: Instrument Choice in Legal Context*, 108 YALE L.J. 677 (1999) (discussing the selection of public policy instruments in the global context).

79. In contrast to recycled material, "virgin material" is sourced directly from nature and has "not been previously used or consumed, or subjected to processing other than for its original production." *Virgin Material*, BUSINESSDICTIONARY, https://perma.cc/UC8G-68U8 (archived Oct. 20, 2018).

a market for recycled goods.[80] The law could encourage recycling behavior by creating exceptions to onerous reporting and handling requirements for solid, hazardous waste if the product is recycled in a closed-loop process.[81] The law could operate through price mechanisms, either by taxing the use of virgin materials or subsidizing the use of recycled ones. Deposit refund schemes can provide incentives for consumers to return objects like plastic or glass bottles to stores for recycling.[82] The law could establish a tradable permit scheme, requiring an allowance to use a certain amount of virgin materials, but permitting firms to trade these allowances. The law could influence the physical convenience or architecture of recycling. Local governments could set schedules for curbside recycling that are more frequent than trash pickups.[83]

As alternatives to public law rules, social norms could develop (or be consciously shaped) within a community to identify recycling as "patriotic," or to shame those who discard, rather than recycle, valuable virgin materials.[84] Or a private environmental governance solution could arise in which firms, NGOs, or industry associations employ parallel versions of these public law tools or innovate with new solutions.[85] For example, private firms or NGOs could develop take-back programs that encourage consumers to return old products when they purchase new ones, or firms could impose limits on their suppliers' use of virgin materials.[86]

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80. *Cf., e.g.*, 42 U.S.C. § 6962(c) (2017) (requiring agencies to "procure such items composed of the highest percentage of recovered materials practicable"). *See generally* Sarah E. Light & Eric W. Orts, *Public and Private Procurement in Environmental Governance*, *in* POLICY INSTRUMENTS IN ENVIRONMENTAL LAW (Kenneth Richards & Josephine van Zeben eds., forthcoming 2019), https://perma.cc/J84V-GF33 (discussing the history of environmental procurement policies in the United States).
81. *Cf., e.g.*, 40 C.F.R. § 261.4(a)(8) (2018) (excluding from the definition of "solid wastes" certain "[s]econdary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process").
82. *Cf., e.g.*, MASS. GEN. LAWS ch. 94, §§ 321-327 (2018) (Massachusetts's deposit refund scheme for beverage containers).
83. In Portland, Oregon, for instance, recycling is picked up weekly while garbage is collected only every other week. *Compare Portland Recycles!*, CITY OF PORTLAND OR., https://perma.cc/3ERP-FB8K (archived Oct. 20, 2018), *with Garbage Collection*, CITY OF PORTLAND OR., https://perma.cc/3NA3-U3P3 (archived Oct. 20, 2018).
84. *See* Ann E. Carlson, *Recycling Norms*, 89 CALIF. L. REV. 1231, 1235 (2001) (noting a New York City campaign during World War II to encourage recycling "for patriotic reasons").
85. *See* Light & Orts, *supra* note 5, at 23-53 (arguing that private entities employ the same tools as public regulators in parallel, if not identical, ways).
86. For example, to combat the problem of electronic waste, retailer Best Buy runs a program in which it takes back used appliances and electronics regardless of whether they were initially purchased at Best Buy. *See Electronics and Appliances Recycling at Best Buy*, BEST BUY, https://perma.cc/7HEQ-U8RW (archived Oct. 20, 2018).

D. What Is Missing

Despite the widespread understanding that environmental law is a heterogeneous field, still missing, even from these discussions that look beyond traditional federal environmental statutes, is an in-depth, holistic account of the impact of corporate, securities, antitrust, and bankruptcy law on firms' environmental decisionmaking. As noted above, to the extent that environmental law scholars have examined these fields of corporate and business law, their approach has tended to focus on a single field, a single doctrine, or a single case.[87]

Environmental law casebooks used in law school, which arguably represent what is considered central to the field, likewise do not generally offer any in-depth discussion of whether firm managers have a fiduciary duty only to maximize profit for the benefit of shareholders, or whether they have broader discretion to take into account the long-term interests of a wider class of stakeholders, including customers, employees, the local community, and possibly the environment itself.[88] Nor do they include any discussion of the business judgment rule—a principle of state corporate law that affords firm managers the discretion to act in the best interests of the firm, even taking into account environmental values, without second-guessing by the courts.[89] In discussions of the management of common pool resources, even those casebooks that discuss Ostrom's insider solutions concept do not mention the potentially limiting implications of antitrust law for private industry cooperation.[90] Nor do they discuss the implications of the Bankruptcy Code for a firm that files for bankruptcy and seeks to discharge its environmental liabilities.[91] Perhaps because securities regulations now impose affirmative obligations on publicly traded firms to disclose certain environmental risks, several casebooks do mention these obligations.[92]

87. *See supra* notes 20-26 and accompanying text. *But see supra* note 19.

88. For some popular environmental law casebooks, see HOLLY DOREMUS ET AL., ENVIRONMENTAL POLICY LAW: PROBLEMS, CASES, AND READINGS (6th ed. 2012); DANIEL A. FARBER & ANN E. CARLSON, ENVIRONMENTAL LAW: CASES AND MATERIALS (9th ed. 2014); PERCIVAL ET AL., *supra* note 42; and RICHARD L. REVESZ, ENVIRONMENTAL LAW AND POLICY (3d ed. 2015).

89. *See generally* sources cited *supra* note 88.

90. *See* PERCIVAL ET AL., *supra* note 42, at 52; REVESZ, *supra* note 88, at 16-17; *see also supra* note 61 and accompanying text.

91. *See generally* sources cited *supra* note 88.

92. *See* DOREMUS ET AL., *supra* note 88, at 468; FARBER & CARLSON, *supra* note 88, at 959-63; PERCIVAL ET AL., *supra* note 42, at 1335-37; *see also* Matthew Morreale, *Corporate Disclosure Considerations Related to Climate Change, in* GLOBAL CLIMATE CHANGE AND U.S. LAW 205 (Michael B. Gerrard & Jody Freeman eds., 2d ed. 2014) [hereinafter GLOBAL CLIMATE CHANGE AND U.S. LAW (2014 ed.)] (discussing SEC disclosures, voluntary disclosures, and proxy disclosures); Jeffrey A. Smith & Matthew Morreale, *Disclosure*
footnote continued on next page

One could argue that it is unfair to criticize environmental law casebooks for failing to discuss multiple fields of law; casebooks are intentionally focused pedagogically on teaching the core of a field in depth. The alternative, one might say, would lead to a kind of hodgepodge approach of combining materials from different fields that existed before environmental law coalesced into a single field.[93] If, however, one takes seriously the arguments that environmental law is a heterogeneous field with numerous tools at its disposal to promote environmental values and goals, and that business firms play a significant role in promoting or hindering progress toward environmental goals, then environmental law casebooks should at least acknowledge the significance of corporate law, securities regulation, antitrust law, and bankruptcy law to the core of environmental law's enterprise.

This Article's analysis thus builds upon the work of those who have raised the profile of the business firm in environmental law, and of those who seek to expand our understanding of environmental law, by offering what is missing in prior environmental law scholarship—a holistic analysis of the role that positive corporate law, securities regulation, antitrust law, and bankruptcy law can and should play in shaping firms' environmental behavior. Each of these fields interacts with environmental decisionmaking—meaning the decisions that firm managers make to comply with public environmental law, or to go beyond compliance by adopting private environmental governance—in different, but sometimes overlapping, ways. They either increase or decrease the likelihood that firm managers will take environmental goals into account. In other words, unlike private environmental governance, these fields themselves constitute positive law. But in their "law"-ness, they operate more indirectly than canonical environmental statutes like the Clean Water Act, which directly prohibit or regulate what can come out of a pipe. These fields of corporate and business law shape norms, markets, and architecture in ways that profoundly affect firms' environmental decisionmaking.

Issues, *in* GLOBAL CLIMATE CHANGE AND U.S. LAW 453, 454-80 (Michael B. Gerrard ed., 2007) [hereinafter GLOBAL CLIMATE CHANGE AND U.S. LAW (2007 ed.)] (same). Notably, while the 2007 edition of *Global Climate Change and U.S. Law*, published by the American Bar Association Section of Environment, Energy, and Resources, also included a chapter on fiduciary duties, *see* Jeffrey A. Smith & Matthew Morreale, *The Fiduciary Duties of Officers and Directors*, *in* GLOBAL CLIMATE CHANGE AND U.S. LAW (2007 ed.), *supra*, at 497, the second edition in 2014 omitted this chapter, *see generally* GLOBAL CLIMATE CHANGE AND U.S. LAW (2014 ed.), *supra*.

93. Thanks to Richard Lazarus for raising this point. It is of course also possible that faculty using such casebooks assign additional readings on these fields of law.

II. The Forms of Interaction

This Part offers the Article's main analytical contribution—a taxonomy of five primary ways in which the fields of law governing the corporation and markets interact with firms' environmental decisionmaking. This analysis demonstrates that viewing each field separately may miss the bigger-picture story about how these fields operate in harmony or conflict not only with traditional environmental law and values, but also with one another. In other words, changing one doctrine may be necessary but not sufficient to change firm behavior with respect to the environment. A unified approach is required.

To build on the example of recycling presented above,[94] if securities regulations mandated disclosure of information on firms' recycling practices, that disclosure mandate would likely provide secondary incentives for improved recycling behavior.[95] Corporate law's business judgment rule would be neutral toward this change: While the rule alone would do nothing to encourage recycling behavior, it would provide a safe harbor for managers to increase such behavior, even if doing so carried short-term costs, against claims by shareholders that the managers' decisions are not in the best interests of the firm.[96] However, if private firms in an industry wanted to collaborate to set industry-wide standards or mandates for recycling, in which firms that did not meet the standard were penalized with a boycott or refusals to deal, this could raise problems under antitrust law, which might either prohibit—or at the very least, discourage—such collaboration.[97] And if bankruptcy law allowed a firm facing financial trouble to discharge its pre-petition liability for failure to comply with legal recycling mandates, this would create disincentives for

94. *See supra* notes 79-86 and accompanying text.

95. *See infra* Part III.A.1. *See generally* RICHARD H. THALER & CASS R. SUNSTEIN, NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS 189-91 (2008) (offering examples, including some in the environmental context, of information disclosure rules that achieved substantial reductions in harmful behavior); Daniel C. Esty, *Environmental Protection in the Information Age*, 79 N.Y.U. L. REV. 115, 162-70 (2004) (discussing the potential for greater informational transparency to promote greater visibility of environmental harms, improved modeling, better benchmarking, and ultimately changes in consumer behavior); Paul R. Kleindorfer & Eric W. Orts, *Informational Regulation of Environmental Risks*, 18 RISK ANALYSIS 155, 156 (1998) (defining informational regulation as "any regulation which provides to third parties information on company operations"); Sarah E. Light, *NEPA's Footprint: Information Disclosure as a Quasi-Carbon Tax on Agencies*, 87 TUL. L. REV. 511, 519-31 (2013) (discussing how information disclosure influences environmental decisionmaking in the climate change context). *But see* OMRI BEN-SHAHAR & CARL E. SCHNEIDER, MORE THAN YOU WANTED TO KNOW: THE FAILURE OF MANDATED DISCLOSURE (2014) (critiquing mandatory disclosure as a form of regulation).

96. *See infra* Part III.C.

97. *See infra* Part III.B.

environmental performance by firms anticipating a bankruptcy filing.[98] It is essential to view these fields of law in a larger context.

There are five primary forms of interaction between these fields and firm managers' decisions to promote environmental values and goals: mandates, incentives, safe harbors, disincentives, and prohibitions.[99]

Mandates: Corporate and business law can impose mandatory environmental obligations on firms, with the effect that firm managers must take environmental considerations into account in some fashion. Examples in this category include securities regulations that require publicly traded firms to disclose financially material environmental and climate risks to investors. A second example lies in the Department of Justice's use of antitrust law to break up collusion by the major automakers and their industry association which prevented pollution control technology from reaching the market in the 1960s.[100]

Prohibitions: On the flip side, corporate and business law can also prohibit firm managers from taking environmental values into account—at least under some circumstances. One example of such a prohibition can be found in the way that antitrust law generally precludes firms from entering into agreements with their competitors to conserve environmental resources

98. *See infra* Part III.E.

99. There is one additional relationship between environmental law and corporate and business law and that I exclude from my analysis here—*reversals*. Reversals occur when a traditional environmental statute amends a bedrock principle of corporate or business law, such as how CERCLA affects principles of limited liability for a corporate parent with respect to its subsidiary. *See generally* Oswald & Schipani, *supra* note 23 (summarizing critiques of CERCLA on this account but finding them to be misguided); Cindy A. Schipani, *The Changing Face of Parent and Subsidiary Corporations: Enterprise Theory and Federal Regulation*, 37 CONN. L. REV. 691 (2005) (examining whether CERCLA and the Employee Retirement Income Security Act (ERISA) change the liability of a parent corporation for the acts of its subsidiaries); Perry E. Wallace, Jr., *Liability of Corporations and Corporate Officers, Directors and Shareholders Under Superfund: Should Corporate and Agency Law Concepts Apply?*, 14 J. CORP. L. 839 (1989) (examining the impact of CERCLA on traditional corporate law doctrines regarding parent-subsidiary liability, liability of individual corporate officers, and shareholder liability); Douglas A. Henderson, Comment, *Environmental Law as Corporate Law: Parent-Subsidiary Liability Under CERCLA and the* Kayser-Roth *Aftermath*, 7 J. MIN. L. & POL'Y 293 (1991-1992) (examining the impact of CERCLA on parent-subsidiary liability). Because this Article addresses how corporate and business law constitute fundamental aspects of environmental law rather than the other way around, reversals are outside this Article's scope.

100. *See infra* Part III.A.2. While an order not to collude could be characterized as a *prohibition* on collusion rather than an environmental *mandate*, I conceptualize these categories in relation to their promotion of environmental values and goals. Because the order breaking up the collusive agreement among automakers mandated that the firms make environmentally positive technology available, it is characterized as a mandate.

through industry standards that incorporate price fixing or sanctions on noncomplying firms.[101] And while courts generally do not intrude on firm managers' discretion to take values other than the maximization of short-term shareholder value into account in the day-to-day operations of the firm,[102] in the limited context of firm takeovers, courts have interpreted Delaware corporate law more narrowly to require a connection between managers' decisions and increased short-term shareholder value.[103]

Safe harbors: Safe harbors create protected spheres for firm managers, who, in their discretion, wish to take environmental values into account in their decisionmaking. For example, in the ordinary course of business, firm managers may take the interests of multiple stakeholders into account and, under the business judgment rule, courts will not second-guess management decisions even if they fail to maximize short-term shareholder value.[104] Safe harbors do not prohibit such actions. Nor, however, do they mandate or provide incentives for such actions.[105] The mere fact that a manager can exercise her discretion without fear of liability is distinct from an incentive, because nothing in the safe harbor provides a benefit to a firm manager who chooses to take environmental values into account in her decisions. Arguably, the choice is based on the manager's preexisting preferences, and managers may just as easily decline to use the safe harbor.

Incentives and disincentives: The final two categories of interaction occur when a corporate or business law field creates either incentives or disincentives for firm managers to undertake environmentally protective action. Markets affect behavior by making it more or less costly as a function of price, while norms affect behavior by making it more or less costly as a result of social sanction or approbation. When corporate and business law fields operate indirectly in this way, they create either costs or subsidies for firm managers to take the environment into account in their decisions. As an example, the fact that some pre-petition environmental obligations can be discharged in bankruptcy creates disincentives for firms to meet those obligations fully.[106] Similarly, antitrust law does not categorically prohibit under a per se rule all kinds of industry standard setting aimed at promoting the conservation of environmental resources; some are evaluated under the more fact-intensive rule of reason inquiry. To the extent there is uncertainty

101. *See infra* Part III.B.

102. *See infra* notes 233-38 and accompanying text.

103. *See infra* note 238 (discussing the duties of firm directors in the takeover context under Delaware law).

104. *See infra* notes 233-38 and accompanying text.

105. *See infra* Part III.C.

106. *See infra* Part III.E.

about whether antitrust law prohibits such collective action, this uncertainty may create disincentives for certain forms of private environmental governance.[107]

On the flip side, corporate and business law can create incentives for positive behavior with respect to the environment. For example, more than thirty states have created the "benefit corporation" as a new corporate form. While a firm must opt into this form of incorporation, once the firm has selected the benefit corporation form, its directors and officers are obligated to take environmental (or social) values into account alongside corporate profit for shareholders, and must publish reports that evidence their progress toward these commitments.[108] The benefit corporation goes beyond the safe harbor provided by the ordinary business judgment rule: It provides incentives for firm managers to take environmental values into account in their decisionmaking. They gain the reputational benefit of presenting themselves to the public as benefit corporations, and are protected by a bright-line bar to certain shareholder lawsuits. There is, however, some question as to how enforceable such commitments are, leaving them in the category of incentives, rather than mandates.[109] Finally, while Securities and Exchange Commission (SEC) environmental disclosure rules are primarily mandates because they require the disclosure of certain information, they have secondary effects that operate as incentives for better environmental behavior.[110]

Laying out these categories according to whether they operate in confluence or conflict with environmental values, combined with the degree of influence they exert, yields the following taxonomy.

107. *See infra* Part III.B.

108. *See infra* Part III.D.

109. *See infra* notes 260-66 and accompanying text.

110. *See infra* Part III.A.1.

Table 1
Five Primary Forms of Interaction

Degree of Influence	**Confluence with Environmental Values**	**Conflict with Environmental Values**
Obligations (Must or Must Not)	*Mandates* SEC environmental disclosures (primary effect); antitrust prevention of anti-environmental collusion	*Prohibitions* Antitrust per se rule; Delaware corporate law director obligations in takeover context
Enabling Provisions (May)	*Safe harbors* Ordinary business judgment rule	
Market- or Norm-Leveraging (Should or Should Not)	*Incentives* Benefit corporation; SEC environmental disclosures (secondary effect)	*Disincentives* Bankruptcy discharge of environmental liability; antitrust rule of reason

To be sure, any taxonomy of this sort necessarily involves some oversimplification. But these categories are analytically useful nonetheless. The taxonomy supports this Article's holistic account by demonstrating commonalities across fields of law. It also exposes a more nuanced set of influences than mere conflict-versus-confluence or mandates-versus-incentives. Part III will give more content to the categories by highlighting examples of each primary form of interaction. Part IV will then demonstrate that this account of the forms of interaction reveals a more complete set of options available for integrating environmental values into these areas of corporate and business law. These doctrines can evolve not only from conflict to confluence, but also from prohibition or disincentive to safe harbor, from safe harbor to incentive, and from incentive to mandate.

Corporate law, securities law, antitrust law, and bankruptcy law are not just a fourth generation of environmental law.[111] Rather, they have their own environmental narratives to tell. Instead of telling them as discrete stories, the next Part highlights common themes across these fields.

111. *See supra* Part I.A.

III. Corporate and Business Law as Environmental Law

Having developed the taxonomy, this Part offers detailed examples of each type of interaction. Given the vast nature of each field and the scholarship within it, this Part does not purport to offer a complete account of every such interaction, but rather aims to highlight examples within each category to draw common lessons.

A. Mandates

1. Securities disclosures

Securities regulation offers one of the strongest examples of how business law can affect the environmental decisions of publicly traded firms.[112] After briefly summarizing firms' current disclosure obligations, this Subpart situates securities disclosure requirements in the context of environmental informational regulation more broadly, in order to highlight their primary nature as a mandate while recognizing their secondary nature as an incentive. This Subpart then examines the debate over how broadly to interpret the concept of materiality, which will have significant consequences for the impact of such disclosure requirements on firms' environmental performance going forward.[113]

A major purpose of the securities laws in the United States is to provide information to investors concerning securities offered for sale to the public, in order to "protect investors against manipulation of stock prices."[114] Securities law achieves this goal of market integrity largely through informational regulation. Under the Securities Act of 1933[115] and the Securities Exchange Act of 1934,[116] the SEC adopted Regulation S-K to harmonize corporate disclosures of material information to investors when securities are initially offered to the

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112. *See* sources cited *supra* note 25; *cf.* Aagaard, *supra* note 7, at 1271 (describing SEC environmental disclosure requirements as "embedded environmental law"); Light, *Regulatory Horcruxes*, *supra* note 18, at 1664-65 (identifying SEC environmental disclosure obligations as regulatory "horcruxes"). For more on horcruxes, see generally J.K. ROWLING, HARRY POTTER AND THE HALF-BLOOD PRINCE 492-512 (2005).

113. *See* Harper Ho, *supra* note 25, at 415 ("Since federal reporting requirements only require disclosure of material information, . . . [w]hether nonfinancial information is material is therefore a critical threshold matter for any consideration of disclosure reform."); *cf.* Williams, *supra* note 25, at 1263-68 (discussing how broadly the SEC construes materiality in different contexts).

114. Basic Inc. v. Levinson, 485 U.S. 224, 230 (1988) (citing S. REP. NO. 73-792, at 1-5 (1934)).

115. Pub. L. No. 73-22, tit. I, 48 Stat. 74, 74-92 (codified as amended at 15 U.S.C. §§ 77a-77aa (2017)).

116. Pub. L. No. 73-291, 48 Stat. 881 (codified as amended in scattered sections of 15 U.S.C.).

public; in connection with the annual shareholders' meeting; in both annual and quarterly reports; and when certain specified events occur, such as a merger or acquisition.[117]

Regulation S-K specifies how its general provisions apply to environmental issues and risks. It requires publicly traded firms to disclose the costs of complying with environmental laws, including material capital expenditures; material pending legal proceedings, including environmental legal proceedings; material impacts of risk events, including material "risk factors"; and a general management discussion and analysis of financial condition, including known future trends as well as "uncertainties that are reasonably likely to have a material effect on financial condition or operating performance."[118] In 2010, in response to several investor petitions, the SEC issued an interpretive release to clarify that these existing disclosure requirements apply to climate change, and to provide guidance to public companies on such disclosures.[119] The SEC's release explained that firms must disclose the impact of actual or potential legislation and regulations regarding climate change, including international accords; indirect consequences of regulations or business trends, such as changes in demand for goods or services resulting from climate change; and the physical impacts of climate change, including risks to performance and operations as a result of extreme weather events.[120]

Mandatory information disclosure is an important tool of environmental governance.[121] Indeed, NEPA—the first major environmental statute adopted by Congress—contains no substantive performance standards; it requires only the assessment and public disclosure of information about potentially significant environmental impacts of major federal actions.[122] While informational regulation *mandates* the disclosure of information, it has the secondary benefit of providing *incentives* to those disclosing that information to

117. For the current regulation, see 17 C.F.R. §§ 229.10-.1208 (2018). *See also* Adoption of Integrated Disclosure System, Securities Act Release No. 6383, Exchange Act Release No. 18,524, Investment Company Act Release No. 12,264, 47 Fed. Reg. 11,380 (Mar. 16, 1982) (codified as amended in scattered sections of 17 C.F.R.) (announcing the adoption of a comprehensive disclosure system, including expansion and reorganization of Regulation S-K).

118. *See* Commission Guidance Regarding Disclosure Related to Climate Change, 75 Fed. Reg. 6290, 6293-95 (Feb. 8, 2010) [hereinafter SEC 2010 Climate Guidance] (footnote omitted).

119. *See id.*

120. *See id.* at 6295-97.

121. *See* sources cited *supra* note 95.

122. *See* Light, *supra* note 95, at 531-35; *see also* National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852 (1970) (codified as amended at 42 U.S.C. §§ 4321-4347 (2017)).

change their behavior.[123] For example, the EPA's Toxics Release Inventory (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.[124] 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.[125] Publicly traded firms have faced secondary implications of TRI reporting, including drops in stock prices and increases in borrowing and insurance costs.[126]

A similar dynamic is at work in the securities regulation context. In some circumstances, environmental and climate-related risks can have a legally material impact on a firm's financial position.[127] A recent high-profile example involved ExxonMobil's failure to disclose environmental and climate-related risks. In 2016, the SEC initiated an investigation into 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.[128] The SEC's investigation mirrored an earlier, separate inquiry by the

123. *See generally* THALER & SUNSTEIN, *supra* note 95, at 188-96 (discussing how disclosure of information about energy use, chemical releases, and other environmental impacts can focus managerial or consumer attention on acts that would otherwise be invisible, and how such disclosures have reduced negative environmental impacts).

124. *See* Shameek Konar & Mark A. Cohen, *Information as Regulation: The Effect of Community Right to Know Laws on Toxic Emissions*, 32 J. ENVTL. ECON. & MGMT. 109, 123 (1997) ("Firms with the largest negative stock price effects following announcement of their TRI emissions were found . . . to subsequently reduce their TRI emissions more than other firms in their industry . . . ."); *Introduction to the 2016 TRI National Analysis*, U.S. ENVTL. PROTECTION AGENCY, https://perma.cc/PF3T-FTJ4 (last updated Jan. 24, 2018) (reporting that since 2006, air releases of TRI chemicals dropped by 58%, and that in 2016, 87% of the TRI chemicals in production-related waste was recycled, treated, or used for energy recovery, rather than disposed of or released into the environment). *But see* Lori S. Bennear, *What Do We Really Know?: The Effect of Reporting Thresholds on Inferences Using Environmental Right-to-Know Data*, 2 REG. & GOVERNANCE 293 (2008) (cautioning, based on a study of a Massachusetts program similar to the TRI program, that some scholars may have overestimated decreases in chemical releases because firms stop reporting when their releases fall below reporting thresholds, even when those releases do not fall to zero).

For an excellent discussion of the TRI program in general, see JAMES T. HAMILTON, REGULATION THROUGH REVELATION: THE ORIGIN, POLITICS, AND IMPACTS OF THE TOXICS RELEASE INVENTORY PROGRAM (2005).

125. *See* Bradley C. Karkkainen, *Information as Environmental Regulation: TRI and Performance Benchmarking, Precursor to a New Paradigm?*, 89 GEO. L.J. 257, 294-328 (2001).

126. *See id.* at 323-24.

127. *Cf.* Esty, *supra* note 17, at 64 (noting that investors increasingly care about corporate sustainability); Harper Ho, *supra* note 25, at 420-23 (same).

128. *See SEC Probes Exxon's Climate, Reserves Accounting: Report*, REUTERS (Sept. 20, 2016, 10:40 AM), https://perma.cc/V5HT-RC2K.

New York Attorney General into whether ExxonMobil misled its 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.[129] ExxonMobil ultimately chose to reduce its estimate of recoverable reserves in a subsequent 10-K filing by more than three billion barrels of oil equivalent, including "de-booking" all the reserves it held in a Canadian oil sands project.[130] Separately, 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.[131] In addition to refocusing management attention, mandated securities disclosures can spur more effective public monitoring of firms' environmental behavior when such disclosures are compared to the firms' statements to other stakeholder groups, including regulators, the public, and customers.[132]

The key doctrinal debate is how the concept of materiality, the touchstone of what firms must disclose, interacts with both environmental risks *to* the firm (such as the physical effects of climate change) and environmental externalities *caused by* the firm, which might be the subjects of regulation or litigation. The U.S. Supreme Court has held that a fact is material to investors if there is "a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."[133] Silence on a matter is not

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129. *See id.*

130. *See* Geoffrey Smith, *Exxon's Big Oil Sands Write-Off Could Help It Dodge SEC Troubles*, FORTUNE (Feb. 23, 2017), https://perma.cc/8HYH-WQ9T. On August 2, 2018, the SEC notified ExxonMobil that it had concluded its investigation relating to climate disclosure and that it "d[id] not intend to recommend an enforcement action." Exxon Mobil Corp., SEC No-Action Letter (Aug. 2, 2018), https://perma.cc/L4KW-445U; *see also* Claire Ballentine, *Inquiry Ends into Exxon Mobil's Accounting Tied to Climate Change*, N.Y. TIMES (Aug. 3, 2018), https://perma.cc/ZGC7-C47N.

131. *See* Exxon Mobil Corp., Current Report (Form 8-K), item 7.01, at 2 (Dec. 11, 2017).

132. *Cf.* Coleman, *supra* note 25, at 66-75 (finding a disparity between comments to regulators emphasizing costs of a regulatory standard and comments to investors reassuring them that the firm faces minimal regulatory risk).

133. TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 449 (1976). While this interpretation arose in the context of proxy disclosures, *see id.* at 441-43, the Court subsequently clarified that it applies broadly, including in private securities litigation, *see* Basic Inc. v. Levinson, 485 U.S. 224, 231-32 (1988) ("We now expressly adopt the *TSC Industries* standard of materiality for the § 10b and Rule 10b-5 context."). *See also* Matrixx Initiatives, Inc. v. Siracusano, 563 U.S. 27, 38 (2011) (applying the *TSC Industries* standard as adopted in *Basic*).

actionable unless there is a specific duty to disclose information, or if the failure to disclose creates a misleading impression.[134] Thus, what the "reasonable investor" cares about is paramount.

The relevant question here is whether materiality encompasses environmental disclosure only when environmental issues are connected to a firm's financial performance, or if it applies more broadly, covering environmental issues for their own sake, even if unrelated to financial performance.[135] While SEC regulations repeat the Supreme Court's broad language defining materiality,[136] the agency has generally interpreted this language to encompass those environmental disclosures that are material to a firm's financial performance.[137] For example, in its 2010 interpretive release providing guidance on climate disclosures, the SEC explained why regulatory and ecological developments in the climate arena are worthy of disclosure, noting that such developments "could have a significant effect on operating and financial decisions," such as by "changing prices for goods or services" and creating "new opportunities for investment."[138] Empirical data bear out a positive relationship between financial and environmental performance. A 2015 meta-analysis of more than 2,000 empirical studies exploring the relationship between environmental, social, and governance (ESG) performance and corporate financial performance concluded that the two are "positively correlated."[139]

Several legal scholars have argued that materiality should be understood more broadly to require disclosures about environmental and social risks even if they do not rise to the level of financial materiality, because these risks, too, are of legal significance to investors.[140] Empirical studies have demonstrated that private investor interest in firms' social and environmental risks and their

134. *See* 17 C.F.R. § 230.408(a) (2018) (governing prospectuses); *id.* § 240.12b-20 (reports); *id.* § 240.14a-9(a) (proxy statements).

135. *Cf.* Williams, *supra* note 25 (arguing for a broader interpretation of materiality in the context of social and environmental disclosures).

136. *See* 17 C.F.R. §§ 230.405, 240.12b-2.

137. *See* Williams, *supra* note 25, at 1264-65.

138. *See* SEC 2010 Climate Guidance, *supra* note 118, at 6291.

139. *See* Gunnar Friede et al., *ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies*, 5 J. SUSTAINABLE FIN. & INV. 210, 225-26 (2015); *see also id.* at 226 ("[W]e clearly find evidence for the business case for ESG investing."). Yet a positive correlation between ESG performance and financial performance does not necessarily mean that either measure of performance would meet the materiality standard for risk disclosures under Regulation S-K.

140. *See, e.g.*, Harper Ho, *supra* note 25, at 416-20 (citing empirical studies indicating that investors increasingly care about nonfinancial information, including ESG performance).

environmental decisionmaking has increased in recent years.[141] In 2016, the SEC issued a concept release "to seek public comment on modernizing certain business and financial disclosure requirements in Regulation S-K," including social and environmental disclosures.[142] More than 80% of the non-form comments received by the SEC relating to sustainability called for improved disclosure and standardization of such disclosure.[143] One recent high-profile example demonstrates investor concern for social and environmental governance. In January 2018, Laurence Fink, CEO of the investment firm BlackRock—the largest institutional investor in the world—wrote a letter to the CEOs of publicly traded companies in which the firm invests, admonishing that "[t]o prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society."[144]

There is a statutory basis for a broader understanding of materiality as encompassing nonfinancial environmental and social risks. Beyond information explicitly required to be disclosed, the SEC has broad authority to require disclosure of "such other information . . . as the Commission may by rules or regulations require as being necessary or appropriate in the public interest or for the protection of investors," regardless of whether such information is financially material.[145] Indeed, the SEC has made certain disclosures mandatory, such as those relating to board members' attendance at meetings; board committee structure; executive compensation; and, since Watergate, illegal actions by management, even in the absence of any link to financial materiality.[146]

141. *See id.* at 420-21 (summarizing surveys of investors regarding the importance of nonfinancial ESG information).

142. Business and Financial Disclosure Required by Regulation S-K, 81 Fed. Reg. 23,916, 23,916 (Apr. 22, 2016); *see id.* at 23,969-70.

143. *See* SUSTAINABILITY ACCOUNTING STANDARDS BD., THE STATE OF DISCLOSURE 2016: AN ANALYSIS OF THE EFFECTIVENESS OF SUSTAINABILITY DISCLOSURE IN SEC FILINGS 4 (2016).

144. Larry Fink, *A Sense of Purpose: Annual Letter to CEOs*, BLACKROCK, https://perma.cc/YUE5-BNZC (archived Oct. 20, 2018); *see* Andrew Ross Sorkin, *BlackRock's Message: Contribute to Society, or Risk Losing Our Support*, N.Y. TIMES: DEALBOOK (Jan. 15, 2018), https://perma.cc/HVD9-2ZZY.

145. 15 U.S.C. § 77g(a)(1) (2017); *see, e.g., id.* § 77j(c) ("Any prospectus shall contain such other information as the Commission may by rules or regulations require as being necessary or appropriate in the public interest or for the protection of investors."); *see also* Harper Ho, *supra* note 25, at 440; Williams, *supra* note 25, at 1203-04.

146. *See* Williams, *supra* note 25, at 1265-66, 1265 nn.358-62; *see also* Executive Compensation Disclosure, Securities Act Release No. 8765, Exchange Act Release No. 55,009, 71 Fed. Reg. 78,338 (Dec. 29, 2006) (codified as amended at 17 C.F.R. § 229.402 (2018)) (mandating disclosure of executive compensation); Shareholder Communications, Shareholder Participation in the Corporate Electoral Process and Corporate Governance Generally, Exchange Act Release No. 15,384, Investment Company Act Release No. 10,510, 43 Fed. Reg. 58,522 (Dec. 14, 1978) (codified as amended at 17 C.F.R. § 240.14a-8) (mandating disclosure of board committee structure

footnote continued on next page

Although at present it appears unlikely that the SEC will take further action to require social and environmental reporting in response to its 2016 concept release,[147] the possibility remains for another administration to take such action in the future. The broader interpretation of materiality would be consistent with the environmental priority principle put forth below, arguably offering stronger incentives for firm managers to take environmental values into account in their decisionmaking.[148]

2. Antitrust law

Antitrust law offers a second example of how business law can mandate or prohibit environmentally positive behavior by firms. While several scholars have identified a conflict between antitrust law's goal of promoting competition and the environmental norms of promoting conservation,[149] the relationship between the two is more complex. Before this Article turns to how antitrust law prohibits and creates disincentives for certain forms of industry environmental cooperation,[150] this Subpart first offers a narrative of confluence, describing how antitrust law can advance the goals of environmental protection by prohibiting anti-environmental collusion.

Antitrust law has long been said to serve many purposes, including promotion of "efficiency" in markets;[151] promotion of justice;[152] protection of consumers from monopoly firms' ability to increase prices;[153] and protection

and of board members' attendance at meetings); Views on Disclosure of Illegal Campaign Contributions, Securities Act Release No. 5466, Exchange Act Release No. 10,673, Investment Company Act Release No. 8265, 39 Fed. Reg. 10,237 (Mar. 19, 1974) (mandating disclosure of illegal campaign contributions).

147. *See* sources cited *supra* note 40 (tracking environmental deregulatory actions); *cf.* Act of Feb. 14, 2017, Pub. L. No. 115-4, 131 Stat. 9 (nullifying an SEC rule that required the disclosure of payments to foreign governments by firms in resource extraction industries). For the SEC rule nullified by Congress, see Disclosure of Payments by Resource Extraction Issuers, 81 Fed. Reg. 49,360 (July 27, 2016).

148. *See infra* Part IV.A.

149. *See* Adler, *supra* note 24, at 23-24 (noting this tension); Scott, *supra* note 24, at 142 (same); *infra* Part III.B; *cf.* Richman, *supra* note 24, at 386 (noting, outside the environmental context, that antitrust law may conflict with beneficial forms of private collective standard setting).

150. *See infra* Part III.B.

151. *See* HERBERT HOVENKAMP, PRINCIPLES OF ANTITRUST 34 (2017) (citing Robert H. Bork, *Legislative Intent and the Policy of the Sherman Act*, 9 J.L. & ECON. 7 (1966)).

152. *See id.* (citing Louis B. Schwartz, *"Justice" and Other Non-Economic Goals of Antitrust*, 127 U. PA. L. REV. 1076 (1979) (commenting on Robert Pitofsky, *The Political Content of Antitrust*, 127 U. PA. L. REV. 1051 (1979))).

153. *See id.* at 35 (citing Robert H. Lande, *Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged*, 34 HASTINGS L.J. 65 (1982)).

of competitors, especially small businesses, from "larger, more efficient firms."[154] But antitrust statutes adopted after the Sherman Act,[155] including the Clayton Act[156] and the Federal Trade Commission Act,[157] focused more squarely on the notion of promoting market competition and targeting anticompetitive behavior.[158]

Section 1 of the Sherman Act prohibits "[e]very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce."[159] There are certain kinds of actions that are per se illegal under the antitrust laws, rendering antitrust law an absolute bar.[160] Such actions include price fixing, horizontal boycotts, and output limitations.[161] Courts apply the per se rule when firms aim to "disadvantage competitors by 'either directly denying or persuading or coercing suppliers or customers to deny relationships the competitors need in the competitive struggle.'"[162] In the per se unreasonableness context, the plaintiff need not show anticompetitive effect, as harm to competition is presumed.[163]

Before the enactment of the Clean Air Act, the federal government invoked antitrust law to end a collusive agreement among major automakers and their industry association to keep pollution control technology from reaching the California market. By 1952, authorities addressing air pollution in Los Angeles County had accepted scientific findings that motor vehicle emissions were the major source of the smog that blanketed the Los Angeles basin.[164] Local officials began to reach out to the major automobile

154. *See id.* at 36; *see also* Herbert Hovenkamp, *Antitrust's Protected Classes*, 88 MICH. L. REV. 1, 24-27 (1989) (reviewing the Sherman Act's legislative history and concluding that "competitors, at least as much as consumers, are to be considered among antitrust's protected classes").

155. Ch. 647, 26 Stat. 209 (1890) (codified as amended at 15 U.S.C. §§ 1-7 (2017)).

156. Pub. L. No. 63-212, 38 Stat. 730 (1914) (codified as amended in scattered sections of 15 and 29 U.S.C.).

157. Pub. L. No. 63-203, 38 Stat. 717 (1914) (codified as amended at 15 U.S.C. §§ 41-58).

158. *See* HOVENKAMP, *supra* note 151, at 42.

159. 15 U.S.C. § 1.

160. *See* NCAA v. Bd. of Regents of the Univ. of Okla., 468 U.S. 85, 100 (1984).

161. *See id.* ("Horizontal price fixing and output limitation are ordinarily condemned as a matter of law . . . ."); Klor's, Inc. v. Broadway-Hale Stores, Inc., 359 U.S. 207, 211-12 (1959) ("Group boycotts, or concerted refusals by traders to deal with other traders, have long been held to be in the forbidden category.").

162. Nw. Wholesale Stationers, Inc. v. Pac. Stationery & Printing Co., 472 U.S. 284, 294 (1985) (quoting LAWRENCE ANTHONY SULLIVAN, HANDBOOK OF THE LAW OF ANTITRUST 261-62 (1977)).

163. *See* N. Pac. Ry. Co. v. United States, 356 U.S. 1, 5 (1958).

164. *See* Scott H. Dewey, *"The Antitrust Case of the Century": Kenneth F. Hahn and the Fight Against Smog*, 81 S. CAL. Q. 341, 342-45 (1999).

manufacturers about research on emissions-control technology.[165] In 1953, the Automobile Manufacturers' Association (AMA), an industry trade group, began a campaign to study the issue and committed to funding research.[166] In 1955, several automobile manufacturers, including the four major manufacturers—General Motors, Ford, Chrysler, and American Motors—entered into a formal cross-licensing agreement to share technological information and data on the development of emission-control technology,[167] an action that later became the subject of antitrust litigation.[168] They announced their decision publicly, garnering some praise for addressing the smog problem.[169]

In 1960, California passed the California Motor Vehicle Pollution Control Act.[170] The Act mandated that manufacturers of new cars install emissions-control devices; however, the mandate was only triggered once such devices had been certified by the newly created Motor Vehicle Pollution Control Board.[171] By 1964, the Board had certified four emissions-control devices as meeting the state's standards, triggering the mandate under the Act.[172] Independent firms, rather than the major automakers, had developed these devices.[173] Shortly after the state certified these devices, the major automakers announced that they, too, had developed their own emissions-control technology,[174] arguably so that they would not be required to license technology from other firms. This sequence of events led some officials in California to conclude that the major automakers had conspired to delay making their own technologies publicly available.[175] After Los Angeles County officials asked the U.S. Attorney General to investigate possible collusion, a grand jury was convened.[176]

Although the Department of Justice did not file criminal charges, in January 1969 it filed a civil antitrust suit against the AMA and the four major

165. *Id.* at 345.

166. *See id.* at 347-48.

167. *See id.* at 342 n.4, 348.

168. *See* United States v. Auto. Mfrs. Ass'n, 307 F. Supp. 617 (C.D. Cal. 1969), *appeal dismissed for want of juris. per curiam sub nom.* City of New York v. United States, 397 U.S. 248 (1970).

169. *See* Dewey, *supra* note 164, at 348 & n.12.

170. Ch. 23, 1960 Cal. Stat. 346 (codified as amended in scattered sections of the California Health and Safety and Vehicle Codes); *see* Dewey, *supra* note 164, at 350.

171. *See* Dewey, *supra* note 164, at 350-51; *see also* California Motor Vehicle Pollution Control Act sec. 1, § 24389(a), 1960 Cal. Stat. at 348.

172. *See* Dewey, *supra* note 164, at 351.

173. *See id.*

174. *See id.* at 351-52.

175. *See id.* at 352-53.

176. *See id.* at 353.

automakers, alleging that the defendants had conspired among themselves and with smaller motor vehicle manufacturers "to eliminate competition in the research, development, manufacture and installation of motor vehicle air pollution control equipment, and in the purchase from others of patents and patent rights, covering such equipment," in violation of section 1 of the Sherman Act.[177] In response to the complaint, the defendants argued that their cooperation had actually accelerated the development of emissions-control devices and noted that collaboration was required to ensure that all manufacturers would be able to comply with the increasingly stringent standards.[178] After the lawsuit was filed, a partner in the law firm representing the AMA penned an article[179] explaining that individual consumers had been "unwilling to spend the additional small amount" necessary to purchase vehicles equipped with emissions-reducing devices.[180] Thus:

> So far as the installation of devices was concerned, therefore, the manufacturers had a substantial and legitimate interest in cooperating. No company wanted to incur a cost disadvantage, either in terms of an increase in sales price or an adverse effect on vehicle driveability, without some assurance that all manufacturers were incurring similar disadvantages in the marketplace.[181]

Arguably, this was as much a problem of the interaction between corporate law and antitrust law in competitive markets as it was one of antitrust law alone. If firms had a broader mandate beyond profit maximization, including to contribute to the public interest, perhaps they would have been more willing to incur a short-term cost disadvantage, even in a competitive market, rather than enter into an agreement to limit competition.

The parties resolved the suit by entering into a consent decree, which required the defendants not to conspire to delay the development of emissions-control devices and to make available without royalties both patent licenses and data on the emissions-control devices they had developed.[182] However, the decree did not require the defendants to admit liability or pay monetary penalties or damages for environmental harm; nor did it require the

177. United States v. Auto. Mfrs. Ass'n, 307 F. Supp. 617, 618 (C.D. Cal. 1969), *appeal dismissed for want of juris. per curiam sub nom.* City of New York v. United States, 397 U.S. 248 (1970); *see also* JAMES E. KRIER & EDMUND URSIN, POLLUTION AND POLICY: A CASE ESSAY ON CALIFORNIA AND FEDERAL EXPERIENCE WITH MOTOR VEHICLE AIR POLLUTION, 1940-1975, at 88 (1977); Dewey, *supra* note 164, at 353-54; Howard P. Willens, *The Regulation of Motor Vehicle Emissions*, 3 NAT. RESOURCES LAW. 120, 126 (1970).

178. *See* Willens, *supra* note 177, at 126.

179. *See Auto. Mfrs. Ass'n*, 307 F. Supp. at 618 (identifying the law firm Wilmer, Cutler & Pickering as counsel for the AMA); Willens, *supra* note 177, at 120 n.* (identifying the author as a partner in the firm).

180. Willens, *supra* note 177, at 127.

181. *Id.* (emphasis omitted).

182. Dewey, *supra* note 164, at 356-57.

retrofitting of vehicles.[183] Despite the lack of damages or penalties, in this case antitrust law served as a mandate to promote environmental goals, preventing collusion in the market when firms feared that developing an environmental product would put them at a competitive disadvantage.

A second, more recent example of antitrust law serving as an environmental mandate comes from the European Union, not the United States, but the example offers a similar lesson about the potential confluence, rather than conflict, between antitrust principles and environmental goals. In 2011, the European Commission fined two consumer products firms, Unilever and Procter & Gamble, more than 300 million euros combined for entering into an agreement to maintain prices for laundry detergent while the firms switched to selling a more concentrated, environmentally preferable formulation.[184] The firms switched to the more environmentally friendly formulation as a result of their participation in a voluntary industry initiative called the "Code of Good Environmental Practice for Household Laundry Detergents,"[185] a classic example of private environmental governance. The voluntary initiative included reducing the amount of detergent needed for each load of laundry, as well as overall product weight and packaging.[186] The industry initiative appropriately did not include any commitments regarding price fixing.[187]

However, the firms privately "agreed to keep the price unchanged" when the "products were 'compacted'" in a way that might appear to a consumer that he would be able to wash fewer loads of laundry than the compacted product was capable of cleaning.[188] In addition, they engaged in other forms of price collusion, including "restrict[ing] their promotional activity" and "decid[ing] not to pass the benefit of cost savings (reduced raw materials, packaging and transport costs) on to consumers."[189] The firms further agreed on direct price

183. *See id.* at 357; *see also Auto. Mfrs. Ass'n*, 307 F. Supp. at 618 (noting that the government was seeking only "an order enjoining the[] defendants from continuing the alleged unlawful conduct").

184. *See* Commission Decision of Apr. 13, 2011, Case COMP/39579—Consumer Detergents, C(2011) 2528 final, at 5, 23 [hereinafter *Consumer Detergents*]; *see also* Scott, *supra* note 24, at 131-32. A third firm, Henkel, participated in the challenged conduct but was granted immunity from the fines for having reported the agreement and cooperated with the Commission's investigation. *See Consumer Detergents*, *supra*, at 21.

185. *See Consumer Detergents*, *supra* note 184, at 8; *see also* Scott, *supra* note 24, at 132.

186. *See Consumer Detergents*, *supra* note 184, at 8-9.

187. *See id.* at 9; *see also infra* Part III.B.

188. *Consumer Detergents*, *supra* note 184, at 9.

189. *Id.*

increases and "exchanged sensitive information on prices and trading conditions, thereby facilitating the various forms of price collusion."[190]

In this case, just as in the case of the automakers, antitrust law enforcement served as an environmentally positive mandate. Relying on antitrust law, the European Commission fined these firms for seeking to avoid passing cost savings from an environmentally beneficial product onto consumers. The motivations of the consumer products firms mirrored those of the automakers: In both cases, the firms feared that being the first to market an environmentally preferable product would reduce profits or create a competitive disadvantage vis-à-vis other firms in the marketplace. This example likewise suggests the importance of viewing antitrust law in connection with other fields, such as corporate law. Firms driven by a profit motive experience that motive in the context of a competitive environment.[191]

B. Prohibitions and Disincentives: The Antitrust Per Se Rule and the Rule of Reason

While antitrust law can serve as an environmental mandate by prohibiting collusive behavior that keeps environmentally preferable goods from the market, there is also conflict between antitrust law's goals of promoting competition and environmental law's goals of promoting

190. *Id.* at 9-10.

191. Although enforcement of antitrust law by private parties dwarfs enforcement by the federal government, *see* HOVENKAMP, *supra* note 151, at 532 (reporting that 95% of antitrust suits are privately initiated); Daniel A. Crane, *Optimizing Private Antitrust Enforcement*, 63 VAND. L. REV. 675, 675-76 (2010) (citing a 10:1 ratio), courts have held that antitrust law is not a tool for environmental governance that can be used by any injured party. Despite broadly worded language in the Clayton Act authorizing suits by "any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws," 15 U.S.C. § 15(a) (2017), courts have limited the class of plaintiffs who can invoke antitrust law to those who have suffered an "antitrust injury," *see, e.g.*, Atl. Richfield Co. v. USA Petroleum Co., 495 U.S. 328, 334 (1990) (emphasis omitted) (quoting Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc., 429 U.S. 477, 489 (1977)).

Indeed, after the federal government's suit against the automakers, courts rejected efforts by states, local governments, and private parties to seek more extensive relief such as retrofits or restitution for those who had retrofitted their own vehicles. *See* Washington v. Auto. Mfrs. Ass'n (*In re* Multidistrict Vehicle Air Pollution), 538 F.2d 231, 234-36 (9th Cir. 1976) (holding that the provision of the Clayton Act requiring courts to approve consent decrees only if they are in the public interest is "not a broad license to the court to issue decrees designed to eliminate air pollution"); *In re* Multidistrict Private Civil Treble Damage Antitrust Litig. Involving Motor Vehicle Air Pollution Control Equip., 52 F.R.D. 398, 402, 404-05 (C.D. Cal. 1970), *aff'd in part, rev'd and remanded in part sub nom.* California v. Auto. Mfrs. Ass'n (*In re* Multidistrict Vehicle Air Pollution M.D.L. No. 31), 481 F.2d 122 (9th Cir. 1973).

conservation.[192] Because antitrust law's per se rule and rule of reason operate on a somewhat fluid continuum,[193] this Subpart discusses the two doctrines together. The per se rule operates as a prohibition, whereas the rule of reason operates as both a prohibition and a disincentive.

As noted above, antitrust law generally prohibits certain types of market activity—price fixing, horizontal boycotts, and output limitations—as illegal per se, and harm to competition is presumed.[194] For example, if an industry association declines to award a seal of approval necessary for a product's sale without any good faith attempt to test the product's performance, but rather simply because that product is manufactured by a competitor, such an action would be illegal per se.[195] Under this Article's framework, a per se violation is thus a prohibition.

The more fact-intensive inquiry under the rule of reason tests "whether the restraint imposed is such as merely regulates and perhaps thereby promotes competition or whether it is such as may suppress or even destroy competition."[196] While this extremely broad statement might suggest that any fact is relevant to the inquiry, the salient facts under the rule of reason are "those that tend to establish whether a restraint increases or decreases output, or decreases or increases prices."[197] If an anticompetitive effect is found, then the action is illegal and the rule of reason operates, like the per se rule, as a prohibition.[198] The rule of reason can also operate as a disincentive, even if no

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192. *See* sources cited *supra* note 24.

193. *See, e.g.*, NCAA v. Bd. of Regents of the Univ. of Okla., 468 U.S. 85, 100-01 (1984) (acknowledging that "[h]orizontal price fixing and output limitation are ordinarily condemned as a matter of law under an 'illegal *per se*' approach" and that the case involved "horizontal restraints on competition," but "[n]evertheless . . . decid[ing] that it would be inappropriate to apply a *per se* rule to this case"); *see also* HOVENKAMP, *supra* note 151, at 232-35 (discussing the "exaggerated distinction between" the two doctrines (capitalization altered)).

194. *See supra* notes 160-63 and accompanying text.

195. *See* Radiant Burners, Inc. v. Peoples Gas Light & Coke Co., 364 U.S. 656 (1961) (per curiam) (holding that the plaintiff, who had alleged that an industry association's failure to approve its heater resulted not from the application of an objective set of testing standards but from a desire to restrict competition, had stated a claim under the Sherman Act).

196. FTC v. Ind. Fed'n of Dentists, 476 U.S. 447, 457-58 (1986) (quoting Chi. Bd. of Trade v. United States, 246 U.S. 231, 238 (1918)).

197. HOVENKAMP, *supra* note 151, at 233; *see also NCAA*, 468 U.S. at 103 (stating that the key criterion under both the per se rule and the rule of reason is the "impact on competitive conditions" (quoting Nat'l Soc'y of Prof'l Eng'rs v. United States, 435 U.S. 679, 690 (1978))).

198. *See Ind. Fed'n of Dentists*, 476 U.S. at 459-60 (noting that an agreement that "limit[s] consumer choice by impeding the 'ordinary give and take of the market place' cannot be sustained under the Rule of Reason" (citation omitted) (quoting *Nat'l Soc'y of Prof'l Eng'rs*, 435 U.S. at 692)).

court finds an anticompetitive effect, as uncertainty and litigation risk may discourage firms from undertaking legally permissible, environmentally positive industry collaborations.[199]

Associations of firms have adopted numerous mechanisms of private environmental governance to address the management of common pool resources like fisheries, forests, and the global climate.[200] Examples include the Sustainable Apparel Coalition's Higg Index[201] and the American Chemistry Council's Responsible Care program.[202] But private industry standards raise special antitrust concerns. An agreement among competitors with respect to product or process specifications may exclude competitors who fail to meet such standards, raising the specter that such industry collaborations really constitute output limitations or efforts to limit competition.[203]

While the U.S. Supreme Court has scrutinized private standard-setting associations carefully,[204] it has noted that if associations "promulgate . . . standards based on the merits of objective expert judgments and through procedures that prevent the standard-setting process from being biased by members with economic interests in stifling product competition . . . , those private standards can have significant procompetitive advantages."[205] In the absence of price fixing or a boycott, a rule of reason analysis generally applies to product standard setting by private associations.[206] The uncertain outcome

199. *See* Scott, *supra* note 24, at 123 (arguing that even though the rule of reason provides "increased flexibility," it is still "unlikely to encourage" environmental or social agreements among private firms).

200. For detailed examples of private environmental governance approaches, see sources cited in note 5 above.

201. *See The Higg Index*, SUSTAINABLE APPAREL COALITION, https://perma.cc/PS2C-TSY8 (archived Oct. 20, 2018) ("[T]he Higg Index is a suite of tools that enables brands, retailers, and facilities of all sizes—at every stage in their sustainability journey—to accurately measure and score a company or product's sustainability performance.").

202. *See Responsible Care*, AM. CHEMISTRY COUNCIL, https://perma.cc/DV5L-QK3B (archived Oct. 20, 2018) ("Responsible Care has helped . . . member companies significantly enhance their performance and improve the health and safety of their employees, the communities in which they operate and the environment as a whole.").

203. *Cf.* Consol. Metal Prods., Inc. v. Am. Petroleum Inst., 846 F.2d 284, 286, 293-97 (5th Cir. 1988) (rejecting a challenge to a private standard-setting organization's failure to approve the plaintiff's product, where there was no evidence that competing manufacturers sought to reduce competition or of any anticompetitive effect).

204. *See* Allied Tube & Conduit Corp. v. Indian Head, Inc., 486 U.S. 492, 500-01 (1988).

205. *Id.* at 501; *see also* FTC & U.S. Dep't of Justice, Antitrust Guidelines for Collaborations Among Competitors 5-6 (2000), https://perma.cc/B9KS-LUVJ (noting that many collaborations among competitors can be procompetitive).

206. *See supra* notes 160-61 and accompanying text (describing the contexts in which courts apply the per se rule).

inherent in the application of antitrust law in this context could therefore serve as a potential disincentive to the adoption of private industry standards.[207]

The challenge of course is that some form of explicit sanctions on noncompliant industry members may be necessary for private industry standards to be effective. In the context of private reputational mechanisms like the New York Diamond Dealers Club,[208] Barak Richman has pointed out that the Club's use of reputational sanctions and voluntary refusals to deal with actors who flout industry norms, while welfare enhancing, could nonetheless amount to violations of antitrust law.[209] This echoes the concern raised by Andrew King and Michael Lenox in their extensive empirical analysis of the Responsible Care program created by the Chemical Manufacturers Association (now the American Chemistry Council).[210] King and Lenox concluded that the absence of explicit sanctions on members who failed to meet the standards set by the program left the program vulnerable to "opportunism."[211] While they suggested that industry associations could look to third parties to enforce the rules,[212] an alternative way to facilitate the long-term environmental benefits of stronger sanctions would be to interpret antitrust law in conformity with the environmental priority principle presented below.[213]

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207. *See* Scott, *supra* note 24, at 126-28 (arguing that even scrutiny under the rule of reason can deter socially responsible collaboration).

208. The Diamond Dealers Club is a voluntary association of diamond merchants with approximately 1,800 members, most of whom operate as middlemen between diamond retailers and diamond miners and producers. *See* Richman, *supra* note 24, at 331-32.

209. *See id.* at 335-39.

210. *See* King & Lenox, *Self-Regulation*, *supra* note 26, at 713 ("[O]ur findings highlight the difficulty of creating self-regulation without explicit sanctions."); *see also id.* at 699; *Responsible Care*, *supra* note 202.

211. *See* King & Lenox, *Self-Regulation*, *supra* note 26, at 712-14; *see also* Michael J. Lenox & Jennifer Nash, *Industry Self-Regulation and Adverse Selection: A Comparison Across Four Trade Association Programs*, 12 BUS. STRATEGY & ENV'T 343, 344, 347 (2003) (reviewing self-regulatory programs in four different industries and hypothesizing that "only when self-regulatory programs have explicit sanctions for malfeasance," such as expulsion, "may they avoid attracting more polluting firms"). King and Lenox noted that while the program permitted the expulsion of noncompliant members, the industry association was reluctant to employ this sanction. *See* King & Lenox, *Self-Regulation*, *supra* note 26, at 700.

    A recent study found that plants owned by parent firms participating in Responsible Care *increased* their pollution by 15.9% relative to similar plants owned by nonparticipants. *See* Shanti Gamper-Rabindran & Stephen R. Finger, *Does Industry Self-Regulation Reduce Pollution?: Responsible Care in the Chemical Industry*, 43 J. REG. ECON. 1, 3 (2013). In contrast, the same authors found that participation in the Responsible Care program significantly reduced the likelihood of industrial accidents. *See* Stephen R. Finger & Shanti Gamper-Rabindran, *Testing the Effects of Self-Regulation on Industrial Accidents*, 43 J. REG. ECON. 115, 122, 133 (2013).

212. *See* King & Lenox, *Self-Regulation*, *supra* note 26, at 713.

213. *See infra* Part IV.A.

In some instances, the conflict between the values of promoting competition and conserving environmental resources can be stark.[214] Jonathan Adler, for example, has identified this conflict in the context of fisheries—a tragedy of the commons situation in which some form of collective action is required to avoid overfishing.[215] He cites as an example *Manaka v. Monterey Sardine Industries, Inc.*, in which a fisherman was excluded from a local fishing cooperative.[216] The fisherman sued the cooperative under the Sherman Act, and the court found an antitrust violation in his exclusion.[217] While the fishing cooperative's policies were no doubt exclusionary, Adler contends that they also promoted conservation by restricting catch.[218] The fishery collapsed by the 1950s, a collapse Adler hypothesizes might have been "inevitable" but that perhaps might not have occurred in the absence of the antitrust suit.[219]

While a court performing a rule of reason analysis must consider whether a restraint on trade suppresses or destroys competition, Adler points out that courts may also "consider offsetting efficiencies from otherwise anticompetitive arrangements."[220] It is not clear, however, that the courts have consistently taken these factors into account.[221] Among other potential remedies, Adler argues that to resolve this tension between antitrust law, on the one hand, and private collective action to conserve environmental resources, on the other, courts should more actively consider the "ancillary conservation benefits of otherwise anticompetitive conduct."[222] Recognizing the long-term health of a fishery would be consistent with antitrust law's purpose of ensuring viable markets exist in the future, and consistent with the environmental priority principle introduced below.[223]

214. *See* Adler, *supra* note 24, at 49 (noting that this conflict exists whenever private actors cooperate to preserve common pool resources).

215. *See id.* at 5-8; *see also* Hardin, *supra* note 35, at 1244-45 (identifying the tragedy of the commons in grazing and the destruction of other environmental public goods).

216. *See* Adler, *supra* note 24, at 4 (citing Manaka v. Monterey Sardine Indus., Inc., 41 F. Supp. 531, 532 (N.D. Cal. 1941)).

217. *See id.* (citing *Manaka*, 41 F. Supp. at 536).

218. *See id.* at 4-5.

219. *Id.*

220. *Id.* at 24. In *Chicago Board of Trade v. United States*, for instance, the Supreme Court found that many of the effects of the limitation at issue "helped to improve market conditions" and upheld the Board of Trade's restraints. *See* 246 U.S. 231, 240-41 (1918).

221. *See* Adler, *supra* note 24, at 26-35 (discussing several fishery cases in which courts found antitrust violations despite positive environmental impacts).

222. *See id.* at 24; *see also id.* at 60-77 (discussing judicial and legislative remedies to the conflict).

223. *See infra* Part IV.A.

C. Safe Harbors: The Business Judgment Rule

Corporate law is the positive law that directly governs the relationship between firm managers, shareholders, and other stakeholders of the firm.[224] Yet it serves a more indirect architectural function with respect to managers' environmental decisionmaking. Firms' architecture is a function of their design and of the "code" defining how they are constituted.[225] If firm managers are obligated to maximize profits for shareholders in the short term and prohibited from taking other values into account, they may behave negatively with respect to environmental or other social goals.[226] If firm managers have discretion to take environmental values and goals into account, then they may behave in a more environmentally positive way—especially given the fact that environmental interests are often long-term in nature.[227] This Subpart highlights the role of the business judgment rule as a safe harbor that creates a protected sphere of discretion.

One view of the duties of firm managers, embodied in the work of Milton Friedman, sees inexorable conflict between protection of the natural environment, or other social missions, and private firms' obligation to seek profits.[228] Under Friedman's view, if business managers undertake socially responsible actions that do not increase profits, they are imposing an unrepresentative "tax" on their shareholders and inappropriately engaging in

224. A basic premise of corporate law is that "a corporation should have as its objective the conduct of business activities with a view to enhancing corporate profit and shareholder gain." 1 PRINCIPLES OF CORP. GOVERNANCE: ANALYSIS & RECOMMENDATIONS § 2.01(a) (AM. LAW INST. 1994) (citation omitted). But this objective is subject to the limitations that the corporation must comply with the law, *id.* § 2.01(b)(1); "[m]ay take into account ethical considerations that are reasonably regarded as appropriate to the responsible conduct of business," *id.* § 2.01(b)(2); and "[m]ay devote a reasonable amount of resources to public welfare, humanitarian, educational, and philanthropic purposes," *id.* § 2.01(b)(3). *See also* sources cited *supra* notes 22, 26.

225. *Cf.* Lawrence Lessig, Commentary, *The Law of the Horse: What Cyberlaw Might Teach*, 113 HARV. L. REV. 501, 506 (1999) (describing cyberspace as having "no nature" but instead a "particular architecture that cannot be changed," an architecture that is "a function of its design—or . . . its code").

226. *Cf.* Jamie Dimon & Warren E. Buffett, Opinion, *Short-Termism Is Harming the Economy*, WALL ST. J. (June 6, 2018, 10:00 PM ET), https://perma.cc/3VE2-MR4L (proposing a move away from quarterly earnings reports which "often lead[] to an unhealthy focus on short-term profits at the expense of long-term strategy, growth and sustainability").

227. *See* Lazarus, *supra* note 3, at 746-47 (arguing that environmental law is unique in the sense that the harms it seeks to prevent exist on distant time horizons).

228. *See* Friedman, *supra* note 10, at 33; *see also* Bernard Black & Reinier Kraakman, *A Self-Enforcing Model of Corporate Law*, 109 HARV. L. REV. 1911, 1921 (1996) ("The efficiency goal of maximizing the company's value to investors remains, in our view, the principal function of corporate law."); Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 307 (1976).

public policymaking.[229] But other corporate law scholars—including Margaret Blair, Einer Elhauge, and Lynn Stout—have argued that firm managers have a protected realm of discretion in which to exercise their "business judgment," one in which they have license to take values beyond the maximization of shareholder wealth into account.[230] Ultimately, which of these perspectives prevails is a question of corporate law as drafted by state legislatures and interpreted by state courts.

State corporate law governs firm incorporation, including both mandatory firm obligations and the default rules around which firms can contract.[231] Because more than one million firms, and more than two-thirds of the Fortune 500, are incorporated in Delaware,[232] the Delaware General Corporation Law and the Delaware Court of Chancery's interpretations of that law have played a significant role in the development of corporate legal rules and doctrines. Under black-letter corporate law, firm directors owe fiduciary duties to the corporation and its shareholders.[233] However, courts apply the

229. *See* Friedman, *supra* note 10, at 33, 122.

230. *See* Blair & Stout, *supra* note 22, at 299-305 (discussing how the business judgment rule is consistent with a long-term approach to value); Einer Elhauge, *Sacrificing Corporate Profits in the Public Interest*, 80 N.Y.U. L. REV. 733, 782 (2005) ("[E]ven if shareholder profit-maximization were our only goal, fulfilling it would inevitably create considerable management discretion to sacrifice profits in the public interest."); Sneirson, *supra* note 22, at 1004-05, 1004 n.90 (arguing that the principle that corporations should conduct business to "enhanc[e] corporate profit and shareholder gain" draws a distinction between "[e]nhancing" and "maximizing" and refers to enhancement in the long term (emphasis omitted) (quoting 1 PRINCIPLES OF CORP. GOVERNANCE: ANALYSIS & RECOMMENDATIONS § 2.01(a) (AM. LAW INST. 1994)); *cf.* Oliver Hart & Luigi Zingales, *Companies Should Maximize Shareholder Welfare Not Market Value*, 2 J.L. FIN. & ACCT. 247, 249 (2017) (arguing that while Friedman's separation thesis is correct when a firm's externality is "separable from money-making," as in the case of charitable giving, his thesis is wrong when it comes to "non-separable activities, where profit and damage are inextricably connected"). *See generally* Eric W. Orts, *Beyond Shareholders: Interpreting Corporate Constituency Statutes*, 61 GEO. WASH. L. REV. 14, 32-35 (1992) (examining state statutes expanding the discretion of firm managers to consider the interests of constituencies other than shareholders, largely in the corporate takeover context).

231. *See* John C. Coffee, Jr., *The Mandatory/Enabling Balance in Corporate Law: An Essay on the Judicial Role*, 89 COLUM. L. REV. 1618, 1618-19 (1989) (distinguishing between those who view corporate law as comprising "mandatory rules that the shareholders themselves cannot waive or modify" from those "contractarians" who "see corporate law as primarily composed of waivable 'default rules'").

232. *See About the Division of Corporations*, DEL. DIVISION CORPS., https://perma.cc/Q2NH-85PR (archived Oct. 20, 2018).

233. *See* eBay Domestic Holdings v. Newmark, 16 A.3d 1, 26 (Del. Ch. 2010) (noting the fiduciary duty of directors to shareholders); *see also* 1 PRINCIPLES OF CORP. GOVERNANCE: ANALYSIS & RECOMMENDATIONS § 2.01 (offering the more moderate statement that directors should "enhanc[e] corporate profit and shareholder gain," subject to legal and ethical limitations, and that the firm "[m]ay devote a reasonable amount of resources to

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deferential business judgment rule to ordinary decisions by managers and directors:

> When director decisions are reviewed under the business judgment rule, this Court will not question rational judgments about how promoting non-stockholder interests—be it through making a charitable contribution, paying employees higher salaries and benefits, or more general norms like promoting a particular corporate culture—ultimately promote stockholder value. . . . [H]owever, the directors must act within the range of reasonableness.[234]

In other words, when a shareholder challenges a decision by the firm's directors, a court "presum[es] that in making a business decision the directors of a corporation acted on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the company."[235] This deferential standard of review does not permit the court to "substitute its judgment for that of the board if the [board's] decision can be 'attributed to any rational business purpose.'"[236] The business judgment rule "protects against the risk that a court might 'impos[e] itself unreasonably on the business and affairs of a corporation.'"[237]

The business judgment rule thus acts as a safe harbor, insulating from liability those firm directors who choose to eschew short-term profit for shareholders in the name of promoting other, longer-term values.[238] In

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public welfare, humanitarian, educational, and philanthropic purposes" without running afoul of its duties to shareholders).

234. *eBay*, 16 A.3d at 33.

235. *Id.* at 36 (quoting Unitrin, Inc. v. Am. Gen. Corp. (*In re* Unitrin, Inc. S'holders Litig.), 651 A.2d 1361, 1373 (Del. 1995)).

236. *Id.* (alteration in original) (quoting *Unitrin*, 651 A.2d at 1373).

237. *Id.* (alteration in original) (quoting Cede & Co. v. Technicolor, Inc., 634 A.2d 345, 360 (Del. 1993), *modified in other part*, 636 A.2d 956 (Del. 1994)).

238. *Cf.* Wallace, *supra* note 22, at 765 (concluding that the business judgment rule allows leeway for directors to "pretty much take (or not take) whatever action they choose regarding corporate policy and practice on climate change" without judicial second-guessing).

There is an exception to the rule when a firm faces an attempted takeover. At such a time, the Delaware courts do not apply the business judgment rule to evaluate defensive actions adopted by a target's board of directors, but instead apply a heightened standard of scrutiny. *See Unocal Corp. v. Mesa Petroleum Co.*, 493 A.2d 946, 954 (Del. 1985) (noting that when a board addresses a pending takeover bid, in light of the "omnipresent specter" that the board may seek to entrench its own interests, "there is an enhanced duty which calls for judicial examination at the threshold before the protections of the business judgment rule may be conferred"); *see also* Revlon, Inc. v. MacAndrews & Forbes Holdings, 506 A.2d 173, 182, 185 (Del. 1986) (holding that where the board allowed "considerations other than the maximization of shareholder profit to affect their judgment" in the context of an auction among bidders to take over the firm, the board's action was not entitled to deference); Orts, *supra* note 230, at 45-47.

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Shlensky v. Wrigley, such values included the culture of baseball as a daytime sport and the long-term impact on property values in the surrounding community.[239] A minority shareholder of the corporation that owned the Chicago Cubs and operated Wrigley Field sued the directors of the firm, as well as its president and majority shareholder, Philip K. Wrigley.[240] The plaintiff alleged that every major league baseball team other than the Cubs had scheduled games at night "for the specific purpose of maximizing attendance and thereby maximizing revenue and income."[241] The plaintiff further alleged that the Cubs' recent operating losses were caused by declining attendance at home games, a direct result of the defendants' refusal to install lights at Wrigley Field and to schedule games at night.[242] The plaintiff alleged that Wrigley's failure to install lights was "not because of interest in the welfare of the corporation but because of his personal opinions 'that baseball is a "daytime sport" and that the installation of lights and night baseball games will have a deteriorating effect upon the surrounding neighborhood.'"[243] The court reaffirmed the longstanding history of the business judgment rule, noting that it would not substitute its judgment for that of the directors unless the action was tainted by fraud or self-dealing.[244] The court reasoned that in the absence

Beginning with Pennsylvania in 1983, more than thirty states, though not Delaware, have adopted constituency statutes that permit consideration of broader stakeholder interests. *See generally* Christopher Geczy et al., *Institutional Investing When Shareholders Are Not Supreme*, 5 HARV. BUS. L. REV. 73, app. A at 130-31 (2015) (listing thirty-three state statutes). While the origin of constituency statutes lies in the wave of mergers and takeovers that occurred in the early 1980s, *see* Orts, *supra* note 230, at 23-26, their adoption continued into the 1990s after *Unocal*. They offer a counterweight to the common law approach of addressing directors' duties. *See id.* at 88-89. While some of these statutes are expressly limited to the context of takeovers or changes in control, others are written in broader terms. *See* Orts, *supra* note 230, at 30-31, 31 n.73 (noting this distinction and citing statutes from states with narrower provisions); *see also* Geczy et al., *supra*, at 97 & n.139 (listing nine states with constituency statutes limited to the takeover context).

These constituency statutes strengthen the safe harbor protection for firm managers who take stakeholder interests into account in the ordinary course of business (when such discretion would also arguably be protected under the business judgment rule). But their most significant impact is in extending this discretion to the takeover context. *See* Geczy et al., *supra*, at 98 ("[D]irectors retain their flexibility . . . to consider nonshareholder interests in takeover situations under constituency statutes."). Thus, constituency statutes operate as a safe harbor in the takeover context as well.

239. *See* Shlensky *ex rel.* Chi. Nat'l League Ball Club (Inc.) v. Wrigley, 237 N.E.2d 776, 778, 780 (Ill. App. Ct. 1968).

240. *Id.* at 777.

241. *Id.*

242. *See id.*

243. *Id.* at 778.

244. *See id.* at 779-80; *see also id.* ("The judges are not business experts." (emphasis omitted) (quoting Dodge v. Ford Motor Co., 170 N.W. 668, 684 (Mich. 1919))). Other language in

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of a showing of any such misconduct, the corporation's directors could reasonably take into account "the long run interest of the corporation in its property value at Wrigley Field."[245]

Under this Article's taxonomy, the business judgment rule thus serves as a safe harbor, on the theory that firm managers, rather than courts, are best equipped to determine whether environmentally positive behavior lies in the corporation's best interests.[246] As currently construed, the business judgment rule is consistent with the environmental priority principle presented below,[247] but does not tip the scales either in favor of or against environmental values and goals; rather, the directors' exogenous preferences govern.

D. Incentives: The Benefit Corporation

Rather than relying on the discretion afforded to managers under the business judgment rule on an issue-by-issue basis, some firms have affirmatively chosen to incorporate (or reincorporate) as "benefit corporations" under state law with a dual mission to promote both shareholder profit and a social or environmental purpose.[248] These hybrid forms of social enterprise

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Dodge v. Ford is often cited in support of the profit maximization view. *See* Blair & Stout, *supra* note 22, at 301 ("*Dodge v. Ford Motor Co.* is one of the most frequently cited cases in support of the shareholder primacy view." (footnote omitted)). *But see id.* at 301-02 (arguing that this interpretation of *Dodge v. Ford* should be limited to the duties among shareholders in closely held corporations).

245. *See Shlensky*, 237 N.E.2d at 780.

246. *See* Stephen M. Bainbridge, *The Business Judgment Rule as Abstention Doctrine*, 57 VAND. L. REV. 83, 88-89 (2004); Elhauge, *supra* note 230, at 739 ("The very reason for the business judgment rule is precisely that courts cannot reliably figure out what maximizes profits . . . .").

247. *See infra* Part IV.A.

248. *See* Dana Brakman Reiser, *Benefit Corporations—A Sustainable Form of Organization?*, 46 WAKE FOREST L. REV. 591, 592-95 (2011) (discussing the rise of benefit corporations). Well-known benefit corporations include Patagonia, Method Products, and Plum Organics. *See* PATAGONIA WORKS, ANNUAL BENEFIT CORPORATION REPORT: FISCAL YEAR 2017, at 1 (2018), https://perma.cc/9W5E-BBYD; *Our Story*, METHOD, https://perma.cc/Q829-MGH7 (archived Oct. 20, 2018); Ariel Schwartz, *Inside Plum Organics, The First Benefit Corporation Owned by a Public Company*, FAST COMPANY (Jan. 22, 2014), https://perma.cc/48P2-QK9Z.

Firms may also choose to be privately certified by the nonprofit organization B Lab as a "B Corporation," which is a private governance model rather than one of public law. *See* Brakman Reiser, *supra*, at 594 (describing the B Corp certification process); *About B Corps*, CERTIFIED B CORP., https://perma.cc/795P-7XA5 (archived Oct. 20, 2018).

For an argument that the rise of benefit corporation statutes may negatively affect interpretations of ordinary corporate law with respect to the pursuit of social goals, see Kevin V. Tu, *Socially Conscious Corporations and Shareholder Profit*, 84 GEO. WASH. L. REV. 121 (2016). For more on enterprises with both a profitmaking and social purpose, see generally Michael D. Gottesman, Comment, *From Cobblestones to Pavement: The Legal*

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explicitly allow firm managers to take environmental interests into account in their decisions without fear of litigation by unhappy shareholders.[249]

The ability to incorporate as a benefit corporation is best characterized as an incentive. In comparison to the ordinary corporate form, which provides only the safe harbor of the business judgment rule, the benefit corporation more strongly promotes environmental values and goals. It confers a reputational benefit on those firms that present themselves to the public as environmentally or socially beneficial firms. It generally bars litigation over claims that the firm is not maximizing profit for shareholders, conferring the benefit of decreased litigation risk. Yet state benefit corporation laws cannot be categorized as a mandate, given the lack of strong accountability and enforcement mechanisms combined with the fact that a firm that has opted into the benefit corporation form can likewise opt back out of it.

In 2010, Maryland became the first state to adopt a benefit corporation statute,[250] and by 2018, thirty-four states had adopted such laws.[251] A benefit corporation is a distinct legal entity from the typical corporation, and while the various state statutes are not identical, they share several common features regarding the corporation's purpose, accountability, and transparency, as many are based on model benefit corporation legislation.[252] First, these statutes govern either the initial incorporation of a firm or permit amendment to an

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Road Forward for the Creation of Hybrid Social Organizations, 26 YALE L. & POL'Y REV. 345 (2007).

249. *See infra* text accompanying notes 258-59.

250. *See* Act of Apr. 13, 2010, chs. 97-98, 2010 Md. Laws 980 (codified as amended at MD. CODE ANN., CORPS. & ASS'NS §§ 5-6C-01 to -08 (LexisNexis 2018)).

251. *See State by State Status of Legislation*, BENEFIT CORP., https://perma.cc/L73H-4W4Y (archived Oct. 20, 2018) (reporting as well that six additional states have benefit corporation legislation in the works). While other forms of hybrid social enterprise exist, *see* Brakman Reiser, *supra* note 248, at 591-92, this Article focuses on benefit corporations as a common statutory form. On hybrid forms of social enterprise more generally, including outside the United States, see ORTS, *supra* note 22, at 206-15.

252. *See* MODEL BENEFIT CORP. LEGISLATION (B LAB 2017), https://perma.cc/9YT6-7WGU; *see also* J. Haskell Murray, *The Social Enterprise Law Market*, 75 MD. L. REV. 541, 553-54 (2016) (discussing the degree to which different states have followed the Model Legislation or varied in their approaches).

The discussion that follows highlights common areas and areas of variation. Delaware, however, which adopted its statute creating the "public benefit corporation" entity in 2013, diverges from the Model Legislation in several respects, also highlighted below. *See* Act of July 17, 2013, ch. 122, § 8, 79 Del. Laws (codified as amended at DEL. CODE ANN. tit. 8, §§ 361-368 (2018)). Some states, including Colorado and Minnesota, have adopted statutes that borrow from both the Model Legislation and Delaware's approach. *See* COLO. REV. STAT. §§ 7-101-501 to -509 (2018); MINN. STAT. §§ 304A.001-.301 (2018); *see also* Murray, *supra*, at 554.

existing for-profit corporate charter.[253] Second, to ensure notice to the public and shareholders, such laws generally require labeling of certain corporate documents, and in some cases the corporate name itself, to make clear that the firm is a benefit corporation.[254] Third, the statutes generally require that the corporation pursue a "general public benefit," which is defined as a "material, positive impact on society and the environment."[255] In addition, the statutes permit the corporation to identify and pursue "specific public benefits," which can include, among other social goals, environmental protection.[256] Fourth,

253. *See* Brakman Reiser, *supra* note 248, at 596. If an existing corporation seeks to become a benefit corporation, the statutes generally require supermajority support among shareholders. *See, e.g.*, DEL. CODE ANN. tit. 8, § 363(a) (requiring a supermajority vote to elect public benefit corporation status, or to merge or consolidate in a way that would result in such status); MD. CODE ANN., CORPS. & ASS'NS §§ 2-604(e), 5-6C-03(b) (requiring a supermajority); VT. STAT. ANN. tit. 11A, § 21.05 (2018) (same); VA. CODE ANN. §§ 13.1-707(D), .1-785 (2018) (same); *see also* MODEL BENEFIT CORP. LEGISLATION §§ 102, 104(a), 105(a) (providing that election or termination of benefit corporation status requires supermajority support among shareholders); Brakman Reiser, *supra* note 248, at 612.

254. *See* MD. CODE ANN., CORPS. & ASS'NS § 1-502(a)(2) (requiring the name of a benefit corporation to indicate its benefit status); *id.* § 5-6C-05 (requiring a "[c]lear reference" to benefit status to "appear prominently" on charter documents and stock certificates); VT. STAT. ANN. tit. 11A, §§ 21.03(a)(1), .04 (requiring a statement in articles of incorporation); *see also* MODEL BENEFIT CORP. LEGISLATION §§ 103, 104(a) (same); Brakman Reiser, *supra* note 248, at 596. In contrast, Delaware requires designation as a public benefit corporation within the certificate of incorporation, and permits but does not require the name of the corporation to contain the words "public benefit corporation" or the abbreviation "PBC." *See* tit. 8, § 362(a)(2), (c). If the name does not contain either, the corporation must provide notice prior to issuance of stock that the shares are in a public benefit corporation. *See id.* § 362(c).

255. *See* Brakman Reiser, *supra* note 248, at 597-98 (quoting MD. CODE ANN., CORPS. & ASS'NS §§ 5-6C-01(c), -06(a); and S. 298, 2011 Leg., 26th Sess. §§ 2, 5 (Haw. 2011)) (noting similar language in different state statutes). The Model Legislation defines "[g]eneral public benefit" using this language, qualifying that the impact on society and the environment should be "taken as a whole" and "assessed against a third-party standard." MODEL BENEFIT CORP. LEGISLATION § 102; *see also, e.g.*, VT. STAT. ANN. tit. 11A, §§ 21.03(a)(4), .08(a) (using similar language to define "[g]eneral public benefit" and similarly requiring impact to be assessed against a "third-party standard").

In contrast, Delaware does not require public benefit corporations to pursue a general public benefit. Rather, in its certificate of incorporation, a public benefit corporation must "[i]dentify . . . 1 or more *specific* public benefits to be promoted." *See* tit. 8, § 362(a)(1) (emphasis added); *see also id.* § 102(a)(3). Delaware law defines "[p]ublic benefit" as "a positive effect (or reduction of negative effects) on 1 or more categories of persons, entities, communities or interests (other than stockholders in their capacities as stockholders) including, but not limited to, effects of an artistic, charitable, cultural, economic, educational, environmental, literary, medical, religious, scientific or technological nature." *Id.* § 362(b).

256. *See* Brakman Reiser, *supra* note 248, at 597-98. The Model Legislation defines "[s]pecific public benefit" to include a number of environmental options, including "protecting or restoring the environment," "improving human health," and "conferring any other

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they require the directors of a benefit corporation to consider the effects of their actions not only on shareholders, but also on other stakeholders—including employees, customers, and the community—and to take account of "the local and global environment," "the short-term and long-term interests of the benefit corporation," and "the ability of the benefit corporation to accomplish its general public benefit purpose and any specific public benefit purpose."[257] Finally, the statutes assert that these articulated general and specific public benefits are "in the best interests of the corporation," language that appears to undermine any claim by shareholders that pursuing such goals would violate managers' fiduciary duties.[258] The statutes specifically immunize directors from liability as long as they act to pursue these goals.[259]

As with any goal pursued unilaterally by a firm, there is a question about the firm's accountability with respect to its commitment to pursue a public benefit.[260] The benefit corporation statutes generally provide for three mechanisms of enforcement. First, the statutes rely on the publication of an

particular benefit on society or the environment." MODEL BENEFIT CORP. LEGISLATION § 102; *see also, e.g.*, MD. CODE ANN., CORPS. & ASS'NS §§ 5-6C-01(d), -06(b) (permitting the corporation to identify a specific public benefit and using similar language to define the concept); VT. STAT. ANN. tit. 11A, §§ 21.03(a)(6), .08 (same).

257. MODEL BENEFIT CORP. LEGISLATION § 301(a)(1); *see also, e.g.*, MD. CODE ANN., CORPS. & ASS'NS § 5-6C-07(a)(1); VT. STAT. ANN. tit. 11A, § 21.09(a)(1). In a comment to the Model Legislation, the drafters expressly "reject[ed]" the notion that "directors must maximize the financial value of a corporation." *See* MODEL BENEFIT CORP. LEGISLATION § 301 cmt. (citing Dodge v. Ford Motor Co., 170 N.W. 668 (Mich. 1919); and eBay Domestic Holdings v. Newmark, 16 A.3d 1 (Del. Ch. 2010)). They distinguished state constituency statutes, *see generally* Orts, *supra* note 230, at 26-48 (discussing state constituency statutes and the interests they permit directors to consider), noting that the Model Legislation "makes it mandatory for the directors of a benefit corporation to consider the interests and factors that they would otherwise simply be permitted to consider in their discretion under the typical constituency statute." MODEL BENEFIT CORP. LEGISLATION § 301 cmt.; *see also, e.g.*, MD. CODE ANN., CORPS. & ASS'NS § 5-6C-07(a), (c) (requiring directors to consider the impact on multiple stakeholders and immunizing from liability directors who do so); VT. STAT. ANN. tit. 11A, § 21.09(a)-(b) (similar). Despite the mandatory language, it is not yet clear precisely how enforceable this requirement is.

Directors also "need not give priority to a particular interest or factor" unless the firm has expressly made such a commitment in its articles of incorporation. *See* MODEL BENEFIT CORP. LEGISLATION § 301(a)(3); *see also, e.g.*, VT. STAT. ANN. tit. 11A, § 21.09(a)(3).

258. *See* MODEL BENEFIT CORP. LEGISLATION § 201(c); Brakman Reiser, *supra* note 248, at 598; *see also, e.g.*, MD. CODE ANN., CORPS. & ASS'NS § 5-6C-06(c); VT. STAT. ANN. tit. 11A, § 21.08(c).

259. *See* MODEL BENEFIT CORP. LEGISLATION § 301(c)(1); Brakman Reiser, *supra* note 248, at 598-99; *see also, e.g.*, MD. CODE ANN., CORPS. & ASS'NS § 5-6C-07(c); VT. STAT. ANN. tit. 11A, § 21.09(d).

260. *Cf.* Light & Orts, *supra* note 5, at 69-70 (discussing accountability in private environmental governance).

"annual benefit report" to track progress toward the firm's benefit commitments.[261] Second, the statutes delegate the task of assessing performance to third-party certification organizations. They generally require that a benefit corporation define its benefit according to a "comprehensive," "transparent," and "credible" "third-party standard" that has been "recognized . . . for defining, reporting, and assessing corporate social and environmental performance."[262] B Lab, creator of the "B Corp" private certificiation standard and promulgator of the Model Benefit Corporation Legislation, is one such third-party certification organization.[263]

Finally, there is a judicial proceeding called a "benefit enforcement proceeding." This proceeding is generally the sole method by which shareholders may pursue legal action against the corporation or its directors for violations of the provisions of state benefit corporation law, such as failing to post a benefit report.[264] However, beneficiaries of the general or specific benefit lack standing to enforce the firm's commitments.[265] Only the

261. *See* MODEL BENEFIT CORP. LEGISLATION §§ 401-402; Brakman Reiser, *supra* note 248, at 603-04; *see also, e.g.*, MD. CODE ANN., CORPS. & ASS'NS § 5-6C-08; VT. STAT. ANN. tit. 11A, § 21.14. *But see* DEL. CODE ANN. tit. 8, § 366(b), (c)(2) (2018) (requiring biennial reports to stockholders as to the promotion of the specific public benefit, and permitting, but not requiring, publication).

262. MODEL BENEFIT CORP. LEGISLATION §§ 102 (capitalization altered); *see id.* § 401(a)(2) (requiring the annual benefit report to include an assessment of the firm's "environmental and social performance" against this third-party standard); *see also, e.g.*, MD. CODE ANN., CORPS. & ASS'NS § 5-6C-08(a)(2); VT. STAT. ANN. tit. 11A, § 21.14(a)(2). *But see* DEL. CODE ANN. tit. 8, § 366(c)(3) (permitting but not requiring the use of a third-party standard).

263. *See* Brakman Reiser, *supra* note 248, at 600-02; *see also Certification*, CERTIFIED B CORP., https://perma.cc/9YEQ-QEKU (archived Oct. 30, 2018). There are currently more than 2,300 privately certified B Corps globally across fifty countries, *see Year in Review: The B Corp Impact in 2017*, B THE CHANGE (Dec. 28, 2017), https://perma.cc/7JXB-CJMW, some of which are also incorporated as benefit corporations under state law, *see* ORTS, *supra* note 22, at 211; Brakman Reiser, *supra* note 248, at 594. Additionally, a business entity need not even be a corporation to become a certified B Corp. *See* ORTS, *supra* note 22, at 210-11.

264. *See* MODEL BENEFIT CORP. LEGISLATION §§ 102, 305(a); *see also, e.g.*, VT. STAT. ANN. tit. 11A, § 21.13. *But see* DEL. CODE ANN. tit. 8, §§ 365(a)-(b) (providing that the decision of a public benefit corporation director satisfies her fiduciary duties as long as the decision is "informed and disinterested and not such that no person of ordinary, sound judgment would approve").

265. *See* MODEL BENEFIT CORP. LEGISLATION § 303(d); *see also, e.g.*, MD. CODE ANN, CORPS. & ASS'NS § 5-6C-07(b) (providing that directors of benefit corporations have no duty to beneficiaries of the firm's public benefit purpose); VT. STAT. ANN. tit. 11A, § 21.09(e) (same).

corporation itself, a director, a shareholder meeting certain threshold criteria, or certain other listed individuals may bring an action.[266]

Despite these apparent positive incentives, however, this new corporate form has its critics. Some scholars raise a moral hazard argument, claiming that the rise of hybrid social enterprise with an explicit dual mission undermines the notion that the ordinary corporate form permits the exercise of managerial discretion to protect the environment.[267] Others contend that the apparatus for verifying whether firms have met their environmental and social commitments is underdeveloped, leading to potential "greenwashing."[268] Thus, state benefit corporation law acts as an incentive, encouraging firm managers to take into account environmental values and goals consistent with the environmental priority principle introduced below.[269] It is not, however, a mandate.

E. Disincentives: Bankruptcy Law

Bankruptcy law has significant implications for the extent to which firms take into account environmental values and goals, both in deciding whether and how to comply with public environmental law and in deciding whether to go beyond compliance through private environmental governance. The Bankruptcy Code governs the reorganization or liquidation of firms whose assets are insufficient to cover their liabilities.[270] In a liquidation proceeding, the operations of the debtor firm cease and a trustee is appointed or elected to distribute the firm's assets to creditors.[271] In contrast, a reorganization proceeding ends with the confirmation of a plan of reorganization and the discharge of pre-petition liabilities.[272]

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266. *See* MODEL BENEFIT CORP. LEGISLATION § 305(c); *see also, e.g.*, DEL. CODE ANN. tit. 8, § 367 (providing that shareholders owning more than a threshold amount of shares may bring a derivative lawsuit to enforce the directors' duties under the statute); VT. STAT. ANN. tit. 11A, § 21.13(b) (same).

267. *See, e.g.*, Tu, *supra* note 248, at 172-74 (examining the potential negative impact of benefit corporation statutes on interpretations of ordinary corporate law).

268. *See* Brakman Reiser, *supra* note 248, at 624-25 (arguing that social enterprise statutes are weak in the absence of effective enforcement mechanisms); *see also* William S. Laufer, *Social Accountability and Corporate Greenwashing*, 43 J. BUS. ETHICS 253, 255-56 (2003) (identifying greenwashing as the phenomenon of firms holding themselves out to the public as meeting environmental standards which they do not, in fact, meet).

269. *See infra* Part IV.A.

270. Chapter 7 of the Bankruptcy Code governs liquidations, *see* 11 U.S.C. §§ 701-784 (2017), and Chapter 11 governs reorganizations, *see id.* §§ 1101-1174.

271. *See generally id.* § 702 (selection of the trustee); *id.* § 704 (duties of the trustee).

272. *See generally id.* §§ 1121-1129 (governing reorganization plans); *id.* § 1141(d)(1)(A) (providing that confirmation of a reorganization plan discharges pre-petition debts).

The overarching purpose of bankruptcy law—including its discharge provision—is to provide the debtor with a "fresh start" by permitting it to shed, in an orderly fashion, some of its existing liabilities and to ensure either the orderly winding down of the bankruptcy estate or the reorganization of the firm.[273] The challenge, of course, is that this fresh start principle appears on its face to conflict with the imposition of liability on polluters to clean up their environmental contamination. Legal uncertainty surrounding the conflicting values of bankruptcy law and environmental law affects how parties bargain over environmental obligations in the shadow of bankruptcy.[274] This Subpart contends that bankruptcy law operates as a disincentive, not only to full compliance with public environmental law obligations, but also to environmentally positive behavior that goes beyond compliance with the law.

While many scholars have discussed whether obligations under CERCLA (commonly known as the Superfund statute)[275] or related state laws to clean up hazardous waste sites can be discharged as "claims" in bankruptcy,[276] the implications of bankruptcy law in the climate change context have not yet received such sustained attention.[277] This Subpart first spells out how the Bankruptcy Code acts as a disincentive by focusing on the CERCLA site cleanup context, and then broadens the argument to the context of climate change, in which litigation over these issues is only beginning to emerge.

In an ordinary CERCLA case, the EPA identifies a site at which hazardous substances were released; undertakes a preliminary site assessment; determines whether to list the site on the National Priorities List; conducts an investigation to characterize the nature of contamination at the site; and ultimately issues a Record of Decision that identifies the cleanup alternative to be adopted at the site, including its expected costs.[278] The EPA also identifies

273. *See* Grogan v. Garner, 498 U.S. 279, 286 (1991); Local Loan Co. v. Hunt, 292 U.S. 234, 244 (1934); United States v. LTV Corp. (*In re* Chateaugay Corp.), 944 F.2d 997, 1002 (2d Cir. 1991); *cf. In re* CMC Heartland Partners, 966 F.2d 1143, 1146 (7th Cir. 1992) ("A fundamental idea of bankruptcy is that bygones should not prevent the best current deployment of assets.").

274. *See* Mnookin & Kornhauser, *supra* note 70, at 950 (arguing that the "impact of the legal system on negotiations and bargaining that occur outside the courtroom" is significant for "private ordering" (emphasis omitted)).

275. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510, 94 Stat. 2767 (codified as amended at 42 U.S.C. §§ 9601-9675 (2017)).

276. *See, e.g.*, Baird & Jackson, *supra* note 23; Lawton & Oswald, *supra* note 23.

277. For a forthcoming work exploring these implications, see Joshua Macey & Jackson Salovaara, *Bankruptcy as Bailout: Coal, Chapter 11, and the Erosion of Federal Law*, 71 STAN. L. REV. (forthcoming 2019) (on file with author) (arguing that coal bankruptcies are undermining both federal environmental and labor law).

278. *See Superfund Cleanup Process*, U.S. ENVTL. PROTECTION AGENCY, https://perma.cc/CGM7-UC4Y (last updated Oct. 24, 2018). The National Priorities List is "a list of the worst hazardous waste sites identified by Superfund." *Id.*

potentially responsible parties (PRPs) who may be liable under CERCLA.[279] The EPA can either order a PRP to undertake the site cleanup under section 106 of CERCLA,[280] or clean up the site itself and then seek response costs from the PRP under section 107.[281]

If, however, a PRP files for bankruptcy prior to the completion of these steps, the process is short-circuited. The EPA may not yet have issued its final decision about how to clean up the site; assessed how much the cleanup will cost; identified all PRPs; or even determined whether releases of hazardous materials have occurred, a determination that triggers this process.[282] If the EPA fails to file a timely proof of claim in bankruptcy,[283] the bankruptcy court can bar the EPA from ever recovering cleanup costs.[284] Even if the EPA has completed the entire CERCLA process and has settled with the debtor under a consent decree—providing either that the debtor clean up the site itself or pay for cleanup costs—debtors may still argue that the bankruptcy proceeding and discharge bar the EPA from continuing to insist upon these remedies.[285] And if the firm does not pay these costs or conduct the cleanup itself, it is ultimately the U.S. taxpayers who bear the costs instead.

It is worth taking a moment to address the magnitude of the issue. In a study of environmental liabilities in bankruptcy proceedings between 1998 and 2003, the Government Accountability Office (GAO) found a significant impact on the EPA's ability to recover funds for such cleanups, with an associated cost running into the billions of dollars.[286] The GAO noted that while the EPA pursued environmental claims in 136 bankruptcy proceedings during that timeframe, the number of bankruptcies actually involving environmental

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279. *See* 42 U.S.C. § 9607(a) (listing parties that have liability under CERCLA); *see also Finding Potentially Responsible Parties (PRP)*, U.S. ENVTL. PROTECTION AGENCY, https://perma.cc/D474-QYG5 (last updated Apr. 26, 2018).

280. *See id.* § 9606(a) (authorizing the EPA "to secure such relief as may be necessary to abate" any "imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance").

281. *See id.* § 9607(a)(4)(A)-(B).

282. *See id.* § 9604(a)(1).

283. *See generally* 11 U.S.C. § 501 (2017) (describing the process for filing proofs of claim).

284. *See* Midland Cogeneration Venture Ltd. P'ship v. Enron Corp. (*In re* Enron Corp.), 419 F.3d 115, 118, 127-28 (2d Cir. 2005) (noting that the purpose of a "bar date" order for proofs of claim is to "identify with reasonable promptness the identity of those making claims against the bankruptcy estate" (quoting First Fidelity Bank, N.A. v. Hooker Invs., Inc. (*In re* Hooker Invs., Inc.), 937 F.2d 833, 840 (2d Cir. 1991))).

285. For further discussion on the effect of bankruptcy on pre-petition orders for injunctive relief, see notes 302-19 and accompanying text below.

286. *See* U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-05-658, ENVIRONMENTAL LIABILITIES: EPA SHOULD DO MORE TO ENSURE THAT LIABLE PARTIES MEET THEIR CLEANUP OBLIGATIONS 1-3 (2005).

liabilities was likely much higher.[287] The report concluded that by failing to mandate that businesses handling hazardous materials make assurances as to their ability to fund cleanups, the EPA was exposing U.S. taxpayers to "potentially enormous" costs.[288]

Moreover, the GAO study did not capture the scope or magnitude of environmental liabilities in more recent major bankruptcy filings, including those in the aftermath of the 2008 financial crisis.[289] Such filings included the 2009 General Motors bankruptcy, which resulted in settlement agreements totaling more than $899 million in cleanup costs to address significant environmental liabilities at more than one hundred Superfund sites nationwide.[290] They also included the ASARCO bankruptcy, in which the United States and state environmental agencies settled their environmental claims for $1.79 billion to address cleanups at over eighty sites nationwide.[291] In other words, much is at stake in these bankruptcy proceedings.

In many environmental bankruptcy cases, the EPA settles with PRPs for less than the amount filed in its original proof of claim.[292] In some cases, the value listed in the proof of claim may be the total cost of cleanup at the site, whereas the EPA ultimately settles with a PRP only for its proportionate share of the costs.[293] In other cases, the proof of claim may reflect only an estimate of

287. *See id.* at 3-4 (explaining that the EPA does not have the resources to review every bankruptcy petition to determine whether the debtor has environmental liability).

288. *See id.* at 5. In contrast, the authors of a separate study concluded that "the strategic use of Chapter 11 to avoid environmental obligations is an uncommon phenomenon." Lawton & Oswald, *supra* note 23, at 458. This study was limited in scope to Chapter 11 cases that commenced in 2004 and that had closed by mid-2006, *see id.* at 477, so it is not clear that its sample is reflective of the population of bankruptcy cases as a whole.

289. This area is ripe for further empirical research.

290. *See* Press Release, U.S. Attorney's Office for the S. Dist. of N.Y., United States Announces $39.2 Million Settlement with GM to Resolve Environmental Liabilities at the Onondaga Lake Superfund Site in New York (May 1, 2012), https://perma.cc/R9AM-ZKMX; *see also Case Summary: 2010 MLC (General Motors) Bankruptcy Settlement*, U.S. ENVTL. PROTECTION AGENCY, https://perma.cc/E7U5-59KM (last updated Feb. 7, 2017); *Case Summary: 2012 Settlement Agreements in the MLC (General Motors) Bankruptcy*, U.S. ENVTL. PROTECTION AGENCY, https://perma.cc/P86B-6ALF (last updated Feb. 7, 2017).

291. *See Case Summary: ASARCO 2009 Bankruptcy Settlement*, U.S. ENVTL. PROTECTION AGENCY, https://perma.cc/83BP-G3CR (last updated Jan. 25, 2018).

292. *See* Scott E. Blair, Note, *Toxic Assets: The EPA's Settlement of CERCLA Claims in Bankruptcy*, 86 N.Y.U. L. REV. 1941, 1959-61 (2011); *see also id.* app. A at 1976 (comparing the amounts in the EPA's proofs of claim to the corresponding settlement values and finding that in most cases, the settlement value is less than 3% of the initial claim amount).

293. CERCLA provides for strict, joint and several liability for responsible parties unless the environmental harms are capable of apportionment. *See* Burlington N. & Santa Fe Ry. Co. v. United States, 556 U.S. 599, 613-15 (2009) ("CERCLA defendants seeking to

footnote continued on next page

cleanup costs if a final cleanup remedy has not yet been selected.[294] Most relevant for this analysis, settlements always take into account litigation risk. Uncertainty surrounding the status of certain environmental liabilities in bankruptcy proceedings likely affects the settlement negotiations in which these liabilities are resolved.[295] This uncertainty, in connection with the conflict between bankruptcy law's discharge provisions and the "polluter pays" principle of environmental law, creates a disincentive for a firm pondering bankruptcy to bear the full costs of cleanup.

The legal uncertainty arises because the Bankruptcy Code permits only the discharge of a "debt."[296] The Code defines a debt as a "liability on a claim."[297] A "claim" is in turn defined, in somewhat tortured language, as either the "right to payment, whether or not such right is reduced to judgment, liquidated, unliquidated, fixed, contingent, matured, unmatured, disputed, undisputed, legal, equitable, secured, or unsecured"; or the "right to an equitable remedy for breach of performance if such breach gives rise to a right to payment, whether or not such right to an equitable remedy is reduced to judgment, fixed, contingent, matured, unmatured, disputed, undisputed, secured, or unsecured."[298] The Second Circuit has held that when the EPA cleans up a site itself based on a pre-petition release of hazardous substances, and thereafter seeks reimbursement for those costs from the responsible party under section 107 of CERCLA, it has a "right to payment" that constitutes a claim.[299] Even if the EPA has not yet incurred response costs, or "does not yet know the full extent of the hazardous waste removal costs" or "even know the location of all the sites at which such wastes may yet be found," one line of cases provides that this uncertainty merely renders these claims "contingent" and subject to

avoid joint and several liability bear the burden of proving that a reasonable basis for apportionment exists." (citing United States v. Chem-Dyne Corp., 572 F. Supp. 802, 810 (S.D. Ohio 1983))).

294. *See, e.g.*, *Case Summary: Chemtura Corporation Bankruptcy Settlements*, U.S. ENVTL. PROTECTION AGENCY, https://perma.cc/Y5SN-KEVT (last updated Apr. 13, 2017) (characterizing proofs of claim filed by the Department of Justice on behalf of the EPA as "pertain[ing] to past costs incurred and estimated future response costs" at cleanup sites).

295. *Cf.* Mnookin & Kornhauser, *supra* note 70, at 966 (noting that background legal rules affect the willingness of parties in divorce proceedings to engage in settlement negotiations). Such settlements address not only whether environmental obligations are "claims," but also what priority they should receive, and thus, whether they will be paid in full or compromised on a pro rata basis. *See* Baird & Jackson, *supra* note 23, at 1208-12.

296. *See* 11 U.S.C. § 1141(d)(1)(A) (2017).

297. *Id.* § 101(12).

298. *Id.* § 101(5).

299. *See* United States v. LTV Corp. (*In re* Chateaugay Corp.), 944 F.2d 997, 1000, 1004-05 (2d Cir. 1991); *see also* 42 U.S.C. § 9607(a) (2017).

estimation in the bankruptcy proceeding, rather than not claims at all.[300] At least one other court has been more protective of environmental priorities, holding that such cleanup costs must be within the "fair contemplation" of the parties to constitute contingent claims that can be discharged in bankruptcy.[301]

With respect to injunctions ordering responsible parties to clean up Superfund sites,[302] however, the analysis is more complex. An injunctive order can accomplish multiple goals. On the one hand, it can order the debtor to clean up materials that have already been released—an obligation that the EPA alternatively could choose to undertake itself and then to seek response costs.[303] On the other hand, an injunction can order a debtor to "end[] or ameliorate[] continued pollution" for which the EPA has "no option to accept payment in lieu of continued pollution."[304] A third possibility is that the injunction does both.[305]

The Second, Third, and Seventh Circuits have made clear that an order that stops ongoing pollution is not a dischargeable claim.[306] These rulings are consistent with the holding of *Ohio v. Kovacs*, in which the U.S. Supreme Court held that a state cleanup order against a debtor was a dischargeable claim because the state had obtained the appointment of a receiver to fulfill the cleanup order and sought only the payment of money from the debtor.[307] Notably, the Court made clear that "anyone in possession" of a site must comply with applicable environmental laws: "Plainly, that person or firm may not maintain a nuisance, pollute the waters of the State, or refuse to remove the

300. *In re Chateaugay*, 944 F.2d at 1005; *see also* 11 U.S.C. § 501(c) (providing for estimation in bankruptcy of "any contingent or unliquidated claim").

301. *See In re* Nat'l Gypsum Co., 139 B.R. 397, 407-08 (N.D. Tex. 1992).

302. *See* 42 U.S.C. § 9606(a).

303. *See id.* § 9607(a).

304. *See In re Chateaugay*, 944 F.2d at 1008 (holding that such an order is not a dischargeable claim in bankruptcy).

305. *See id.* ("[A] cleanup order that accomplishes the dual objectives of removing accumulated wastes and stopping or ameliorating ongoing pollution emanating from such wastes is not a dischargeable claim.").

306. *See* Torwico Elecs., Inc. v. N.J., Dep't of Envtl. Prot. (*In re* Torwico Elecs., Inc.), 8 F.3d 146, 151 (3d Cir. 1993) (adopting a similar approach with respect to an order by New Jersey's state environmental agency); *In re* CMC Heartland Partners, 966 F.2d 1143, 1146 (7th Cir. 1992) (explaining that a reorganized debtor that has emerged from bankruptcy is neither authorized "to operate a nuisance today" nor excused "from complying with laws of general application"); *In re Chateaugay*, 944 F.2d at 1008 ("[M]ost environmental injunctions will fall on the non-'claim' side of the line."); *cf.* United States v. Apex Oil Co., 579 F.3d 734, 735, 738 (7th Cir. 2009) (holding in a RCRA case that an injunctive obligation is a claim only when "the equitable decree cannot be executed," not when it "merely impos[es] a cost on the defendant, as virtually all equitable decrees do").

307. *See* 469 U.S. 274, 276, 282-83 (1985).

source of such conditions."[308] In *Midlantic National Bank v. New Jersey Department of Environmental Protection*,[309] the Court made a similar statement of principle, clarifying that despite the provision of the Bankruptcy Code allowing a bankruptcy trustee to abandon burdensome property,[310] a trustee may not exercise this power if doing so would be in violation of law "that is reasonably designed to protect the public health or safety from identified hazards."[311]

In contrast, the Sixth Circuit in *United States v. Whizco, Inc.* offered a narrower view of when an injunctive obligation survives bankruptcy.[312] In that case, the Department of the Interior sought to enforce an order under the Surface Mining Control and Reclamation Act (SMCRA)[313] against a Chapter 7 debtor to reclaim a mine that the debtor had abandoned, which posed an ongoing environmental hazard.[314] The government also sought enforcement against an individual agent of the debtor firm who had obtained a discharge of his debts in a Chapter 7 individual liquidation.[315] Unlike CERCLA, SMCRA provides no option for the government to perform the reclamation itself and then seek costs from the responsible party.[316] The Sixth Circuit nonetheless held that the injunctive obligation against the individual had been discharged by his Chapter 7 proceeding: "[T]o the extent that fulfilling his obligation to reclaim the site would force the defendant to spend money, the obligation was a liability on a claim as defined by the Bankruptcy Code."[317] Perhaps the best interpretation is that this language applies only to the case of an individual debtor who, unlike a firm, cannot himself undertake the cleanup work.[318] But

308. *Id.* at 285.

309. 474 U.S. 494 (1986).

310. *See* 11 U.S.C. § 504(a) (2017).

311. *See Midlantic*, 474 U.S. at 496, 507; *see also In re Chateaugay*, 944 F.2d at 1009 (citing *Midlantic*, 474 U.S. at 507).

312. *See* 841 F.2d 147, 150-51 (6th Cir. 1988).

313. Surface Mining Control and Reclamation Act of 1977, Pub. L. No. 95-87, 91 Stat. 445 (codified as amended at 18 U.S.C. § 1114 (2017); and 30 U.S.C. §§ 1201-1211, 1231-1328 (2017)).

314. *See Whizco*, 841 F.2d at 147-48.

315. *See id.* at 148-49; *see also* 11 U.S.C. § 727(a)(1) (providing that individuals can obtain a discharge in Chapter 7, though firms cannot).

316. *See Whizco*, 841 F.2d at 148 ("[T]he Act does not allow the Secretary the alternative remedy of reclaiming the site and demanding payment for the costs incurred . . . ."); *cf.* 42 U.S.C. § 9607(a)(4)(A)-(B) (2017) (providing for recovery of response costs under CERCLA).

317. *Whizco*, 841 F.2d at 150-51.

318. *See id.* at 150 (emphasizing that "the defendant does not have the physical capacity to reclaim the mine site himself" and thus the government's desired remedy was essentially monetary).

a firm subject to an injunction requiring it to expend money to perform cleanup, such as by hiring a contractor, could nonetheless rely on *Whizco*'s broad language to create uncertainty about whether the injunctive obligation survives the bankruptcy.[319]

The potential for conflict between the Bankruptcy Code and environmental obligations is now emerging as an issue in climate change litigation. In April 2016, Peabody Energy and its affiliates filed bankruptcy petitions under Chapter 11.[320] In March 2017, the bankruptcy court entered an order confirming Peabody's plan of reorganization and issued a discharge.[321] Within months after Peabody's plan of reorganization became effective, several local governments in California (the California plaintiffs) filed complaints under state nuisance law against Peabody, as well as other major fossil fuel producers, seeking damages for the defendants' past and ongoing contributions to climate change and sea level rise.[322] The complaints also sought injunctive relief to abate the ongoing nuisance allegedly caused by the defendants' continuing extraction and burning of fossil fuels.[323]

The bankruptcy court, however, held that any pre-petition claim that the local governments may have had was discharged in light of their failure to file a timely proof of claim in the bankruptcy proceeding.[324] However, the court went beyond its conclusion that all claims regarding liability for climate change would be considered as pre-petition rather than as addressing ongoing harms because the complaint focused on the fifty-year period from 1965 to 2015. More expansively, the court asserted that "it defies common sense to believe human responsibility for climate change started after" the effective date

319. This issue is especially challenging if the responsible party does not own the site, but rather has an obligation as an operator, transporter, or generator at a property owned by a third party. *See* 42 U.S.C. § 9607(a) (enumerating parties responsible under CERCLA). An entity that no longer owns or controls a site can argue that it lacks the obligation under *Kovacs* not to maintain a current nuisance.

320. *See* Reorganized Peabody Energy Corp. v. County of San Mateo (*In re* Peabody Energy Corp.), No. 16-42529-399, 2017 WL 4843724, at *1 (Bankr. E.D. Mo. Oct. 24, 2017); *see also* Matt Egan, *First Coal Bankruptcy of Trump Era*, CNN BUS. (Nov. 1, 2017, 3:12 PM ET), https://perma.cc/56FP-NASB.

Peabody, a leading private-sector coal company and member of the Fortune 500, *see All About Peabody*, PEABODY, https://perma.cc/6LD5-J7HZ (archived Oct. 20, 2018), is not alone among major coal firms who have recently filed bankruptcy petitions. Other firms that have filed for bankruptcy within the last five years include Alpha Natural Resources, Arch Coal, Armstrong Energy, Patriot Coal, Walter Energy, and Xinergy. *See* Arathy S Nair, *Peabody Chapter 11 Tops String of U.S. Coal Bankruptcies*, REUTERS (Apr. 15, 2016, 1:00 PM), https://perma.cc/5694-AL99.

321. *See In re Peabody Energy*, 2017 WL 4843724, at *1.

322. *See id.* at *1-2.

323. *See id.*

324. *See id.* at *5 & n.4.

of the plan of reorganization.[325] The court further determined that even if the plaintiffs' claims could be construed as arising after the effective date of the plan, when Peabody emerged from bankruptcy, such claims were also barred.[326] The court reasoned that a bankruptcy settlement with the EPA that permitted ongoing enforcement of federal environmental laws related to mining activities by the reorganized debtor did not include any claims by the state relating to climate change.[327]

This opinion thus appears to immunize one of the world's largest private-sector coal companies from liability under state law for ongoing greenhouse gas emissions arising out of its current operations. To the extent that the *Peabody Energy* opinion suggests that a reorganized coal company cannot be held liable for any post-petition legal obligations to address climate change asserted by the state of California, the opinion appears to conflict with the mandate in *Kovacs* that a firm comply with the law to address ongoing, post-petition harm. Of course, whether California state law is the proper claim to raise against fossil fuel firms for damages, whether such claims must be pleaded under federal common law, and whether California law is preempted by the Clean Air Act are separate legal questions.[328] But if the *Peabody Energy* opinion were to stand on appeal, it would most certainly create disincentives for firms to reduce their emissions.[329] Instead, they could simply file for bankruptcy protection, reorganize, and escape all liability for the impacts of their conduct on climate change.

325. *See id.* at *5 n.4.

326. *See id.* at *5.

327. *See id.* at *6-8.

328. The Supreme Court has held that *federal* common law nuisance claims seeking injunctive relief to limit greenhouse gas emissions are preempted by the Clean Air Act. *See* Am. Elec. Power Co. v. Connecticut, 564 U.S. 410, 415 (2011).

In a separate case, in June 2018, a district court dismissed the City of Oakland's federal common law claims for public nuisance, which sought damages for sea level rise against the five largest investor-owned fossil fuel firms. *See* City of Oakland v. BP P.L.C., 325 F. Supp. 3d 1017, 1019, 1021, 1028 (N.D. Cal. 2018). While the city originally pleaded state law claims, the court had held earlier that any nuisance claims were federal in nature. *See id.* at 1021-22 (citing California v. BP P.L.C., Nos. C 17-06011 WHA & C 17-06012 WHA, 2018 WL 1064293, at *5 (N.D. Cal. Feb. 27, 2018)). The city has filed a notice of appeal. *See* Plaintiffs' Notice of Appeal, *City of Oakland*, 325 F. Supp. 3d 1017 (No. 3:17-cv-06011-WHA). It remains to be seen how the California plaintiffs' state law claims will fare. *See* Notice of Removal by Defendants Chevron Corp. & Chevron U.S.A., Inc. ¶¶ 13-21, County of San Mateo v. Chevron Corp., No. 3:17-cv-04929-MEJ (N.D. Cal. Aug. 24, 2017), 2017 WL 3700338 (arguing that San Mateo's claims, which it pleaded under state nuisance law, are properly understood as federal common law claims, and should be dismissed).

329. The California plaintiffs have filed a notice of appeal. *See* Notice of Appeal & Statement of Election, *In re Peabody Energy*, 2017 WL 4843724 (No. 16-42529-399).

Climate change implicates other provisions in the Bankruptcy Code as well. While a full treatment of all such issues is outside the scope of this Article, it is worth highlighting one other issue, namely, the ability of a debtor under § 363(f) to sell its assets "free and clear of any interest in such property of an entity other than the [bankruptcy] estate."[330] A purchaser of assets from the bankruptcy estate would, under this provision, be subject to its own obligation to clean up a contaminated property that posed ongoing environmental harm under the *Ohio v. Kovacs* standard.[331] However, the question has arisen as to whether the sale of assets under this section gives rise to successor environmental liability for the purchaser, or whether the debtor's unfulfilled environmental obligations are simply extinguished through the sale in bankruptcy.[332]

For example, La Paloma Generating Co. owned an electricity generating facility that was subject to California's Global Warming Solutions Act, an emissions trading regime.[333] In 2016, La Paloma and its affiliates filed bankruptcy petitions, and the firm sought to sell its generating facility "free and clear" to a purchaser under § 363(f).[334] La Paloma had already satisfied its obligations under California emissions trading law to surrender emissions allowances that were due prior to filing the bankruptcy petition.[335] The issue arose, however, of whether the purchaser would be required as a successor to surrender the $63 million in allowances that were due after the petition and after the sale, but that covered emissions for a three-year period during which La Paloma still owned and operated the facility.[336] The court held that while the purchaser would acquire its own obligations to comply with California law

330. 11 U.S.C. § 363(f) (2017). Such "interests" of entities other than the estate are those that could be asserted against the buyer of the assets under the doctrine of successor liability, such as liens or liabilities to third parties that could lower the value of the property at the time of sale. *See* Morgan Olson L.L.C. v. Frederico (*In re* Grumman Olson Indus., Inc.), 467 B.R. 694, 702-03 (S.D.N.Y. 2012).

331. *See* 469 U.S. 274, 276, 282-83 (1985).

332. *See, e.g.*, *In re* Gen. Motors Corp., 407 B.R. 463, 508 (Bankr. S.D.N.Y. 2009) ("The Environmental Matters Objectors understandably would like New GM to satisfy cleanup obligations that were the responsibility of Old GM, on theories of successor liability. . . . [H]owever, the property may be sold free and clear of such claims.").

333. *In re* La Paloma Generating, Co., No. 16-12700 (CSS), 2017 WL 5197116, at *1 (Bankr. D. Del. Nov. 9, 2017), *appeal dismissed as moot sub nom.* Cal. Air Res. Bd. v. La Paloma Generating Co., No. 1:17-CV-1698, 2018 WL 3637963 (D. Del. July 31, 2018); *see also* California Global Warming Solutions Act of 2006, ch. 488, 2006 Cal. Stat. 3419 (codified as amended at CAL. HEALTH & SAFETY CODE §§ 38500-38599 (West 2018)).

334. *See In re La Paloma*, 2017 WL 5197116, at *2, *4.

335. *See id.* at *2.

336. *See id.* at *1-2 (explaining that the allowances due in November 2018 (after the confirmation of La Paloma's plan and after the sale) covered emissions from 2015 until 2017, when La Paloma still operated the facility).

once it began operating the plant, it had no successor liability with respect to what would have been La Paloma's obligation to surrender the $63 million in allowances.[337] Accordingly, the obligation to surrender these allowances was simply extinguished.[338]

Bankruptcy law thus creates disincentives for firms to comply in full with environmental obligations. An environmental priority principle could alter these disincentives.

IV. A Holistic Approach

What I have aimed to show up to this point is that corporate law, securities law, antitrust law, and bankruptcy law already are environmental law. The influence of these fields on firms' environmental decisionmaking can be either positive or negative, in confluence or in conflict with environmental values. And there are different degrees of confluence and conflict, ranging from mandates and prohibitions at the outer edges of the spectrum, to more moderate incentives and disincentives, with safe harbors occupying a band of neutral space in the middle. In some cases, these laws intentionally seek to influence firms' decisionmaking with respect to environmental values and goals, as with SEC environmental disclosure rules or state benefit corporation laws. In other cases, however, these fields of law do not intentionally or explicitly address the potential synergies or tradeoffs between their underlying market-oriented values and environmental values. In such cases, the law of the corporation as environmental law operates as an unintentional, often negative, spillover effect.

In order to address significant environmental challenges like global climate change, the time has come to expand environmental law's paradigm. To complement the more traditional approach of directly regulating the externality coming out of a pipe or smokestack, an approach with only indirect effects on firms' decisionmaking, corporate and business law can more directly regulate firm behavior and market architecture—with indirect effects on what comes out of the pipe.[339] This Part moves from the descriptive and the

337. *See id.* at *6, *8-9.

338. California's motion for a stay pending appeal was denied. *See* Order, *In re La Paloma*, 2017 WL 5197116 (No. 16-12700 (CSS)).

339. The boundary between what lies inside or outside a firm has long vexed corporate law scholars, *see, e.g.*, Vincent S.J. Buccola, *Opportunism and Internal Affairs*, 93 TUL. L. REV. 339, 340-42 (2018), but a bright line is not required here. *Cf.* Coglianese & Nash, *supra* note 11, at 5-6 (arguing that management-based regulation can address significant environmental problems by "leverag[ing] the informational advantage of managers within business organizations, enlisting them to identify ways to solve the specific problems created by their facilities' operations").

analytical to the normative, contending that corporate and business law should make explicit what is currently implicit. These fields of law (or more properly, the institutions that adopt, enforce, amend, and interpret them) must grapple actively with environmental values as well as the tradeoffs between environmental values and efficiency. In other words, this Article calls for the integration of an environmental priority principle.

A. The Environmental Priority Principle

Taking a step back for a moment, it is important to understand the prominent positions that efficiency and welfare maximization hold in the legal landscape. Some scholars champion the value of maximizing social welfare as the overarching, first-order principle that should guide not only interpretation of the common law, but also standard setting in public law regulation.[340] This efficiency-based normative approach is transsubstantive in nature and has infused many areas of the law, including traditional environmental law and regulation.[341] It undergirds much of the law governing the corporation, manifesting in concrete ideals such as shareholder value maximization, access to capital, competition, and market integrity, each of which is arguably an aspect of a well-functioning and efficient market. Perhaps the clearest statement of this overarching focus on efficiency and maximization of social welfare at the federal level came in a series of executive orders which, since 1981, have required federal agencies to consider the costs and benefits of major regulatory actions.[342]

Others take an opposing view, countering that the law should be understood, as well as fashioned, to promote justice or fairness.[343] General conceptions of justice can include environmental values and goals. For example, Douglas Kysar has argued that we should be concerned with protecting the environment not because of the balance of costs and benefits,

340. *See, e.g.*, Louis Kaplow & Steven Shavell, *Fairness Versus Welfare*, 114 HARV. L. REV. 961 (2001) (making the normative claim that legal analysis should promote the maximization of welfare). Kaplow and Shavell's approach leaves open the question of what form of value maximization would achieve this goal.

341. *See* Richard A. Posner, Observation, *The Economic Approach to Law*, 53 TEX. L. REV. 757, 759 (1975) (noting the expansion of the use of economics in legal analysis from economic regulation and antitrust to broader areas including negligence doctrine, contract law, property law, criminal law and procedure, civil and administrative procedure, and legislative theory, among others).

342. *See* Exec. Order No. 12,291, §§ 2-4, 3 C.F.R. 127, 128-30 (1981); Exec. Order No. 12,866, § 1, 3 C.F.R. 638, 638-40 (1993), *reprinted as amended in* 5 U.S.C. § 601 app. at 94, 95 (2017); *see also* Richard H. Pildes & Cass R. Sunstein, *Reinventing the Regulatory State*, 62 U. CHI. L. REV. 1, 128 (1995) (categorizing Executive Order 12,866 as embodying a positive shift toward prioritizing regulatory efficiency).

343. *See generally, e.g.*, JOHN RAWLS, A THEORY OF JUSTICE (1971).

but for precautionary reasons relating to the duties that the present generation owes to future generations with respect to a fair distribution of environmental resources.[344] Business ethicists have likewise posited that future generations and the environment itself are stakeholders or business participants whose interests firm managers must take into account. For example, Thomas Donaldson and James Walsh have argued that firms ought to be accountable to future generations.[345] They contend that living is not a prerequisite for such accountability, as firms consider the future in their decisions every day.[346]

In the middle are those environmental law scholars who have sought to find an accommodation between efficiency (in the form of cost-benefit analysis) and justice, largely in the traditional regulatory context. Some advocate the "retaking" of rationality and cost-benefit analysis in ways that would be more consistent with environmental values and goals.[347] Others have attempted to harmonize efficiency and environmental goals by arguing that pollution equals waste,[348] or that "in a world of scarce resources, waste is . . . immoral."[349] The management concept of "shared value" likewise suggests that firm managers can achieve better economic results by finding compatibilities between economic and social value, including environmental value.[350]

344. *See* KYSAR, *supra* note 29, at 150-75; *see also* Joseph Mazor, *Liberal Justice, Future People, and Natural Resource Conservation*, 38 PHIL. & PUB. AFF. 380 (2010) (arguing that people in the present owe each other a duty to conserve natural resources for people in the future).

345. *See* Thomas Donaldson & James P. Walsh, *Toward a Theory of Business*, 35 RES. ORGANIZATIONAL BEHAV. 181, 196 (2015) ("Business participants are accountable not just to their contemporaries but to their ancestors and descendants too."); *see also* sources cited *supra* note 26.

346. *See* Donaldson & Walsh, *supra* note 345, at 196.

347. *See generally* RICHARD L. REVESZ & MICHAEL A. LIVERMORE, RETAKING RATIONALITY: HOW COST-BENEFIT ANALYSIS CAN BETTER PROTECT THE ENVIRONMENT AND OUR HEALTH (2008) (discussing the historical application of cost-benefit analysis and suggesting ways for this methodology to better reflect environmental and health-related goals). *But see* Mark Sagoff, *Economic Theory and Environmental Law*, 79 MICH. L. REV. 1393, 1396 (1981) ("[A]ttempts to base environmental law on economic theory must fail.").

348. *See, e.g.*, Esty, *supra* note 17, at 65 ("By reducing scrap and waste, [businesses] enhance their resource productivity—and cut costs.").

349. *See* Posner, *supra* note 341, at 777; *see also id.* at 777-78 (arguing that justice means "efficiency").

350. *See* Michael E. Porter & Mark R. Kramer, *Creating Shared Value: How to Reinvent Capitalism—and Unleash a Wave of Innovation and Growth*, HARV. BUS. REV., Jan.-Feb. 2011, at 62, 64 ("[T]he principle of shared value . . . involves creating economic value in a way that *also* creates value for society by addressing its needs and challenges."); *see also* DANIEL C. ESTY & ANDREW S. WINSTON, GREEN TO GOLD: HOW SMART COMPANIES USE ENVIRONMENTAL STRATEGY TO INNOVATE, CREATE VALUE, AND BUILD COMPETITIVE ADVANTAGE 10-14 (2006) (arguing that firms should adopt an "environmental lens" to

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The empirical evidence on the relationship between firms' sustainability performance and financial performance has been mixed. In some cases shared value exists, while in other cases there are tradeoffs between environmental and financial performance.[351] Recent scholarship by Robert Eccles and colleagues has critiqued some of the studies that failed to find a positive relationship between firms' environmental and financial performance on the basis that they did not measure financial performance over a sufficiently long time period.[352] Their recent study examined the internal management of firms between 1993 and 2009, and found significant differences between firms they designated as "high" and "low" sustainability companies.[353] Characteristics that distinguished firms with a high voluntary commitment to sustainability included a longer time horizon for decisionmaking and an approach that sought to maximize "intertemporal profits."[354]

Perhaps most significantly, their study also evaluated comparative measures of corporate financial performance over an eighteen-year period, finding that high sustainability firms achieved both higher stock market performance and accounting performance than did low sustainability firms.[355] The authors concluded by suggesting that the key question is not "whether" a financial case can be made for sustainability, but rather "under what conditions and why" the financial link is present.[356] A long-term time horizon may be crucial not only for environmental protection itself, but also for finding confluence between protecting the environment and promoting market values. And time horizon may be an area in which the institutions that interpret and enforce the law of the corporation have some flexibility.

achieve "upside benefits," manage "downside risks," and promote environmental stewardship).

351. *See, e.g.*, Robert G. Eccles et al., *The Impact of Corporate Sustainability on Organizational Processes and Performance*, 60 MGMT. SCI. 2835, 2849 (2014) (citing empirical studies of the relationship between sustainable practices and financial performance whose findings "rang[e] from a positive to a negative to a U-shaped, or even to an inverse-U-shaped relation," but critiquing these studies); Joshua D. Margolis & James P. Walsh, *Misery Loves Companies: Rethinking Social Initiatives by Business*, 48 ADMIN. SCI. Q. 268, 273-77, 282 (2003) (reviewing thirty years of research on the link between corporate social and financial performance and finding a "positive association, and certainly very little evidence of a negative association" between the two).

352. *See* Eccles et al., *supra* note 351, at 2849.

353. *See id.* at 2836.

354. *See id.* at 2835-36. Other factors that distinguished high sustainability performers included greater attention by the board of directors to issues of sustainability, active engagement with stakeholders, and better internal measurement and reporting. *Id.* at 2836.

355. *See id.* at 2836.

356. *Id.* (emphasis omitted).

Yet 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. Tradeoffs, which may be short-term in nature, are real.[357] Keeping this in mind, there are, broadly speaking, three potential forms of a normative principle that would integrate environmental values more explicitly into the corporate context. The strongest form of such a principle—one might call it the "environmental absolutist principle"—would dictate that environmental values should be preserved above all other values at all times, and can never be outweighed by other considerations, including considerations about efficiency, human rights, market integrity, or other important values. There are two challenges for the strong form. As a normative matter, it may too easily sacrifice other first-order values like human dignity or autonomy.[358] As a legal matter, it is not likely supported by current law. Nor is it likely that such an absolutist rule would be adopted as a matter of policy.

The weakest form of such a principle—what one might call the "environmental balancing principle"—would require only that the environment be a single factor among many that should be weighed in determining how to apply, interpret, or amend the fields of corporate and business law. The environment would be included in an overall mix of factors, but would garner no special weight. Environmental 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.

357. Several environmental law scholars have articulated principles addressing these tradeoffs in the traditional environmental regulatory context, but not in the context of the law governing the corporation. *See, e.g.*, DANIEL A. FARBER, ECO-PRAGMATISM: MAKING SENSIBLE ENVIRONMENTAL DECISIONS IN AN UNCERTAIN WORLD 199-202 (1999) (acknowledging the tradeoffs between environmental and economic values in traditional environmental law and regulation, and advocating that environmental policy keep a pragmatic "balance" between them while taking a long-term view); Holly Doremus, *Constitutive Law and Environmental Policy*, 22 STAN. ENVTL. L.J. 295, 335-39 (2003) (offering a "constitutive approach" that expresses values and helps identify conflicts but does not seek to resolve them directly); Robert R.M. Verchick, *Feathers or Gold?: A Civic Economics for Environmental Law*, 25 HARV. ENVTL. L. REV. 95, 137 (2001) (offering a "pragmatic" approach to resolving tradeoffs that rejects absolutism and embraces eclecticism and contextualism).

My account builds on these prior efforts while acknowledging the distinct institutional context of the law of the corporation as compared to traditional environmental law and regulation. Such contextual differences include different statutes with different legal baselines, values, and mandatory factors to be considered; agencies and other institutions with nonenvironmental missions considering those factors in their enforcement and interpretation; and different levels of government addressing these issues at different scales.

358. *Cf.* FARBER, *supra* note 357, at 58, 200 (rejecting absolutist approaches to environmental regulation as unlikely to endure and insufficiently respectful of other values); Verchick, *supra* note 357, at 132-33 (noting that pragmatism cautions against absolutism).

The challenge with the weak form, though it might be the least controversial to implement, is that it might not accomplish very much.

Perhaps not surprisingly, I offer here an intermediate form: the "environmental priority principle." This principle would require that the environment be valued as a first-order concern on par with efficiency and the related market-based considerations that underlie conventional accounts of the law of the corporation. When there is conflict, it would place weight on the scales in favor of promoting long-term environmental values and goals. The principle would require that environmental values not be outweighed in the absence of a strong showing both that some other measure of justice will be compromised, or a significant degree of efficiency or market functioning lost, and that the environmental values at stake are below some threshold. In other words, the principle would be limited by a degree of proportionality.[359]

This principle is consistent with a long-term perspective on our duties to future generations.[360] Certain environmental resources—like clean and sufficient water, food, and a habitable planet—once degraded, cannot be replaced.[361] The environment warrants special precautionary protection, especially for irreversible and catastrophic harms like climate change.[362]

359. *Cf.* FARBER, *supra* note 357, at 12, 94 (arguing that traditional environmental laws and regulations already incorporate a baseline commitment to environmental values, and that "[o]nly when the costs are grossly disproportionate to the benefits should we abandon this baseline").

360. Although scholars articulate the content of such duties in different ways, many have acknowledged that we owe duties of environmental conservation to future generations. *See, e.g.*, *id.* at 149-62 (recognizing a duty to future generations and critiquing current "discounting" techniques for valuing present lives over future lives); KYSAR, *supra* note 29, at 150-55, 163-64 (favoring respect for the needs of future generations but critiquing Rawls's "just savings" approach, among others, for failing to recognize the incommensurability of environmental goods); DEREK PARFIT, REASONS AND PERSONS 377-78 (1984) (arguing that objections to policies that lower quality of life in the future can be "just as strong" even when such policy choices affect the identity of those persons who will be alive in the future); RAWLS, *supra* note 343, at 284-88 (reasoning that if parties to the original position did not know the generation to which they would belong, they would conclude that "[e]ach generation must . . . put aside in each period of time a suitable amount of real capital accumulation" on behalf of future generations); Mazor, *supra* note 344 (arguing that a present duty exists to conserve natural resources for future people).

361. *Cf.* WCED Report, *supra* note 29, ¶ 27 (defining development as sustainable when "it meets the needs of the present without compromising the ability of future generations to meet their own needs"); KYSAR, *supra* note 29, at 180 ("[T]he distinction between 'weak' and 'strong' conceptions of sustainability in environmental economics hinges essentially on whether the policy analyst is willing to defer to the claims of natural scientists that some natural resources should be treated as beyond measurement and trading, as lexically prior to the framework of market exchange.").

362. *See generally* KYSAR, *supra* note 29 (arguing for a precautionary, rather than welfare-maximizing, approach to environmental law); Light, *supra* note 39 (favoring a precautionary approach to allocations of authority to address climate change across

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Consistent with this view, the legal code embedded within the architecture of firms and the marketplace should more expressly take into account the ecological limits of the planet and the needs of future generations.[363]

In practice, this priority principle would require drafters, enforcers, and interpreters to consider expressly the implications of laws on long-term environmental values and goals, rather than to rely on the mere happenstance that one of these fields might promote environmental goals in an individual case.[364] Further, the principle would require that the relevant legal institutions search for confluence between environmental values and economic values to find areas of shared value. To accomplish this end, these institutions would need to take a long-term view of economic value. To the extent that there is conflict between economic and environmental values, however, the principle would prioritize the environment, while keeping in mind the need for a degree of proportionality.

Having spelled out this normative principle, the next Subpart addresses the mechanisms by which it can be integrated into the law.

B. Integrating the Principle into Law

Integrating this principle into the law is complex as an institutional matter because so many different institutions at the federal and state levels interpret, amend, and enforce the law of the corporation. These institutions are simply too diverse to allow for a one-size-fits-all approach. An approach directed solely at federal agencies to counter regulatory cost-benefit analysis,[365] or only

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different levels of government); Cass R. Sunstein, *Irreversible and Catastrophic*, 91 CORNELL L. REV. 841 (2006) (arguing that irreversible and catastrophic harms like climate change warrant a precautionary approach).

363. *Cf.* WCED Report, *supra* note 29, ¶ 38 ("The ability to anticipate and prevent environmental damage requires that the ecological dimensions of policy be considered at the same time as the economic, trade, energy, agricultural, and other dimensions. They should be considered on the same agendas and in the same national and international institutions."); *see also* Esty, *supra* note 17, at 29 ("[E]cological health and economic progress are deeply intertwined.").

364. For example, one might argue that antitrust law, which can either mandate or prohibit environmentally positive behavior, *see supra* Parts III.A.2, III.B, is not concerned about environmental values at all, but rather about "output suppressing" practices. Under this view, antitrust law rejects restraints on competition regardless of whether they promote or harm the environment. Under the environmental priority principle, however, interpreters and enforcers of antitrust law would be obligated to examine the environmental implications of their decisions and to give substantive weight to those environmental considerations in interpreting the antitrust laws, rather than creating environmental effects by happenstance. Thanks to Herbert Hovenkamp for discussions on this point.

365. *Cf.* Richard L. Revesz, *Regulation and Distribution*, 93 N.Y.U. L. REV. 1489 (2018) (calling for the establishment of an interagency body to address the "negative distributional

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at the courts,[366] would not capture all of the relevant institutions. Each field of corporate and business law has distinct legal and institutional features. In some instances, integration could be possible through the interpretation of existing statutes, while in other cases, legislative change may be necessary. Thus, full integration of the principle would proceed in stages.

This Subpart first employs the analytical framework developed in Part II above to suggest general lessons that can apply broadly across fields of corporate and business law. It then offers a few concrete examples of how the principle and framework would apply in each field, recognizing that more doctrinal work in this area remains to be done. Table 2 lays out the forms of interaction along a continuum.

Table 2

A Continuum from Conflict to Confluence

Conflict		**Neutral**	**Confluence**	
Prohibitions	Disincentives	Safe harbors	Incentives	Mandates

The environmental priority principle would aim to move legal doctrines governing the corporation toward the right side of this spectrum. This approach is especially salient when the values underlying a field of corporate or business law (such as the "fresh start" principle in bankruptcy,[367] or the mandate under Delaware corporate law that firms maximize shareholder profit in the takeover context[368]) are in conflict with environmental values. The analytical framework reveals, however—perhaps somewhat counterintuitively—that the priority principle can likewise play a role when the values underlying corporate and business law are neutral toward or in confluence with environmental values. In other words, the environmental priority principle could transform a safe harbor like the business judgment rule into an incentive, an incentive like a benefit corporation statute into a mandate, or a mandate like the SEC disclosure rules into an even stronger mandate. Consistent with the priority principle, at the very least, a first goal should be to move from prohibitions and disincentives to safe harbors. A longer-term approach should be to narrow the band of safe harbors, first moving them to incentives, and ultimately from incentives to mandates.

consequences" of the regulatory state, rather than addressing them through the tax system).

366. *Cf.* Lazarus, *supra* note 3 (focusing on persuading the U.S. Supreme Court to treat environmental values as distinctive).

367. *See supra* text accompanying notes 273-74.

368. *See supra* note 238.

While a legislative approach might be the most direct method for moving fields of corporate and business law along the spectrum, legislative change is unlikely in the current political environment. Expanded federal agency enforcement and interpretive action are similarly unlikely at this time.[369] Therefore, aspects of this approach remain aspirational. Recognizing the political realities of today, there may be a significant role for federal courts, as well as state courts and legislatures, to play in integrating the environmental priority principle in the first instance. Thus, while the prescriptive recommendations set forth below include legislative action, they also include options that are available through interpretation of current statutory and regulatory schema.

Securities regulation: Securities regulation is an area in which statutory amendment would not be required to implement the environmental priority principle. As Cynthia Williams has demonstrated through her exhaustive analysis of the legislative history, securities laws are consistent with broader social and environmental disclosures, as long as such disclosures are material to a "reasonable investor."[370] Thus, the SEC could incorporate the environmental priority principle by interpreting materiality more broadly to encompass purely environmental materiality even in the absence of financial impact. In the current deregulatory environment, however, an expansive interpretation by the SEC is unlikely.[371]

Antitrust: There would be several ways to integrate an environmental priority principle in the antitrust context. The principle could soften the per se rule from a prohibition to a safe harbor, or the rule of reason from a disincentive or prohibition to a safe harbor, through a number of different mechanisms. For instance, Congress could adopt language creating an express safe harbor from antitrust enforcement if an industry's cooperative action promotes environmental benefits with only minimal harm to market competition. Even in the absence of congressional action, the courts could

369. *See supra* text accompanying note 40.

370. *See* TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 449 (1976) (using the "reasonable investor" language to define what is material); Williams, *supra* note 25, at 1227-46 (demonstrating that the legislative history of the securities laws is consistent with broader social and environmental disclosures); *supra* notes 133-34 and accompanying text.

371. Indeed, the SEC has taken actions in related contexts that run counter to the environmental priority principle. For example, in 2018 the SEC began to take the position in no-action letters that certain shareholder proposals relating to climate change were properly excluded, as they aimed at micromanaging the firm's ordinary business under Rule 14a-8(i)(7). *See* Sarah E. Fortt, *SEC Staff Permits "Micro-Management" Argument to Exclude Climate Change Proposals*, VINSON & ELKINS: CLIMATE CHANGE BLOG (Apr. 27, 2018), https://perma.cc/MEC7-AKR9; *see also* 17 C.F.R. § 240.14a-8(i)(7) (2018) (providing that a firm can exclude a shareholder proposal that "deals with a matter relating to the company's ordinary business operations").

adopt such an interpretation. Antitrust law has often been described as a form of federal common law,[372] which gives the courts some leeway in interpreting how it applies in light of its purposes.[373] If the purpose of a restraint on output is to protect the long-term sustainability of the resource—be it a fishery or the global climate—there may in fact be confluence between environmental and efficiency values.[374] In such cases, a court could create a safe harbor from liability, even in the face of a showing of some modest, short-term anticompetitive effect.[375]

Bankruptcy: Congress could neutralize bankruptcy law's disincentive for environmental compliance into a safe harbor if it amended the Bankruptcy Code to clarify that environmental injunctive obligations are not dischargeable debts, or that successor environmental liability exists for asset sales.[376] Alternatively, the courts may play a role in integrating the principle. Bankruptcy courts sit as courts of equity, often using their equitable powers to balance complex sets of interests among debtors, creditors, and the public.[377] The courts could use these equitable powers to incorporate the environmental

372. *See* State Oil Co. v. Khan, 522 U.S. 3, 20-21 (1997) ("Congress 'expected the courts to give shape to the [Sherman Act's] broad mandate by drawing on common-law tradition.'" (quoting Nat'l Soc'y of Prof'l Eng'rs v. United States, 435 U.S. 679, 688 (1978))); Standard Oil Co. of N.J. v. United States, 221 U.S. 1, 50-62 (1911) (using common law reasoning to define "restraint of trade"); Thomas W. Merrill, *The Common Law Powers of Federal Courts*, 52 U. CHI. L. REV. 1, 44-45 (1985) (describing the antitrust laws as "delegated lawmaking" that confer enforcement power on the federal courts).

373. *See supra* text accompanying notes 151-54.

374. *See supra* notes 220-21 and accompanying text.

375. *See supra* text accompanying note 222. If the market in which a sustainability restraint existed did not encompass an entire fishery or natural resource commons, there could be a greater risk that the output limitation is mere "greenwashing." *See* Laufer, *supra* note 268, at 255-56; *cf. supra* note 268 and accompanying text (discussing the possibility of greenwashing in the benefit corporation context). Thanks to Herbert Hovenkamp for raising this point. In some cases, it may be possible for an industry standard to encompass an entire commons, though this would not likely be the case for the global climate. For significant cumulative harms like climate change, the principle would permit the valuing of incremental environmental improvements or reductions in degradation.

376. *See supra* Part III.E.

377. *See* Young v. United States, 535 U.S. 43, 50 (2002) (noting that bankruptcy courts are "courts of equity" that "appl[y] the principles and rules of equity jurisprudence" (alteration in original) (quoting Pepper v. Litton, 308 U.S. 295, 304 (1939))); *see also Pepper*, 308 U.S. at 304-05 (noting that the equitable powers of bankruptcy courts "have been invoked to the end that fraud will not prevail, that substance will not give way to form, that technical considerations will not prevent substantial justice from being done"); *cf.* Adam J. Levitin, *Toward a Federal Common Law of Bankruptcy: Judicial Lawmaking in a Statutory Regime*, 80 AM. BANKR. L.J. 1, 3-4 (2006) (noting that bankruptcy courts sit as courts of equity, but recommending a federal common law approach for adjudicating questions not answered by the statutory text).

priority principle through broader interpretations of environmental obligations. At the very least, the courts must strictly follow *Ohio v. Kovacs* to recognize that ongoing liability for climate change is not a dischargeable debt.[378] Such an approach might have altered the court's analysis in the Peabody bankruptcy, and could alter firms' incentives moving forward.[379]

Corporate law: State corporate law may be an important locus for experimentation with the environmental priority principle. The states may choose to act as "laboratories" of experimentation with respect to policies that may later spread to other states or to the federal government.[380] Legislative change, rather than reinterpretation of existing law, would likely be required to integrate the principle into state corporate law. State legislatures could strengthen the ordinary business judgment rule into an incentive by requiring firm managers to identify and pursue general and specific environmental benefits alongside profit. In other words, they could transform all corporations within a given state into benefit corporations. States could likewise strengthen the benefit corporation form from an incentive into a mandate by strengthening enforcement mechanisms. For example, states could enforce public benefit commitments directly, authorize litigation by the intended beneficiaries, or strengthen benefit enforcement proceedings.[381]

When states experiment with state law, there is of course a risk that firms may decline to incorporate in those states with more onerous legal requirements.[382] Anticipating this, states may be wary of adopting more stringent environmental or social standards for firms, which can contribute to a race-to-the-bottom dynamic.[383] Yet the fact that thirty-four states have already adopted benefit corporation statutes,[384] and that thirty-three have

378. *See* 469 U.S. 274 (1985); *supra* notes 306-08 and accompanying text.

379. *See supra* notes 320-29 and accompanying text.

380. *See* New State Ice Co. v. Liebmann, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting) ("It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country."), *abrogated by* W. Coast Hotel Co. v. Parrish, 300 U.S. 379 (1937).

381. *See supra* notes 264-66 and accompanying text.

382. *Cf.* Cary Coglianese & Jennifer Nash, *Government Clubs: Theory and Evidence from Voluntary Environmental Programs*, *in* VOLUNTARY PROGRAMS: A CLUB THEORY PERSPECTIVE 231, 254-55 (Matthew Potoski & Aseem Prakash eds., 2009) (observing that the more stringent the entry standards in voluntary environmental programs, the lower the participation).

383. *See generally* Richard L. Revesz, *Rehabilitating Interstate Competition: Rethinking the "Race-to-the-Bottom" Rationale for Federal Environmental Regulation*, 67 N.Y.U. L. REV. 1210 (1992).

384. *See supra* note 251 and accompanying text.

adopted constituency statutes,[385] suggests that there may be at least some support for this approach. With respect to the impact of such a change on investors, one recent study concluded that institutional investors with strict fiduciary duties, such as public and private pension funds and endowments, did not significantly alter their investments in states that adopted constituency statutes.[386]

Despite the fact that integrating the environmental priority principle into these fields of positive law may require distinct mechanisms, a holistic approach to the priority principle is nonetheless valuable. As the automaker antitrust litigation and the European laundry detergent settlement make clear, firms may be reluctant to be the first mover if they perceive this to put them at a competitive disadvantage vis-à-vis their peers. Thus, even if incentives in corporate law or securities regulation promoted greater consideration of environmental values and goals by individual firms, changes directed at the individual-firm level may be insufficient on their own in light of countervailing influences. Any approach must likewise take into account how disincentives or prohibitions in antitrust law or bankruptcy law might counter those changes on an industry-wide or national scale. A field-by-field approach leaves open the potential for a game of environmental "Whac-a-Mole," in which one change improves environmental performance while countervailing forces of other doctrines impede progress.

A holistic approach to the cumulative harm of climate change would resemble the following. If securities regulations mandated fuller disclosure of climate performance and risks, this disclosure mandate would provide incentives for firms to incorporate climate considerations more actively into their decisionmaking and governance structures. If a firm were organized as a benefit corporation but failed to meet its climate targets, a more enforceable benefit corporation law would turn the incentive to meet climate targets into a mandate, ensuring greater accountability. If firms in an industry wanted to cooperate to develop industry standards to address climate change, an environmental priority approach to antitrust law would remove the disincentive for such cooperation, as long as the firms did not fix prices or violate other core principles of market competition. If a firm sought bankruptcy protection to avoid complying with its environmental duties,

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385. *See* Geczy et al., *supra* note 238, app. A at 130-31 (listing state constituency statutes).

386. *See id.* at 127 ("We cannot rule out that constituency statutes had *some* effect on [high fiduciary duty institutions'] investment, but we can rule out that these investors significantly altered investment behavior after the passage of the statutes . . . ."). The authors cautioned that their findings might not generalize to the case of investment in "alternative purpose firms," including those authorized by benefit corporation statutes, which go beyond giving firm managers discretion to consider broader stakeholder interests. *See id.* at 129.

under the environmental priority principle a bankruptcy court would preclude the firm from discharging its ongoing obligations. Changes directed at the individual-firm level, when aggregated into the architecture of the market, could thus chip away at the cumulative harm of climate change. Each of these levers on firm behavior should be considered part of a holistic environmental toolkit moving forward.

C. Regulatory Pluralism in a Deregulatory Context

In ordinary times it is important to take a pluralistic approach with respect to environmental protection. But regulatory pluralism becomes all the more important in a deregulatory moment. When one institution at the federal level—like the EPA—is subject to significant deregulatory pressure, it is worth looking beyond that core institution to other institutional actors to ensure that important values and goals are not underenforced. In some cases, these alternative institutions, like the SEC, may be subject to the same deregulatory pressures.[387] In other cases, however, the alternative institutions stand entirely outside of the control of the federal government, as with states and corporate law.[388] Thus, while it is unlikely at this moment in time that Congress would amend the relevant securities, antitrust, or bankruptcy statutes to integrate the environmental priority principle, or that the SEC would adopt a broader definition of materiality, other institutions may play an important role in the near term in interpreting and enforcing the law of the corporation as environmental law. As noted above, state legislatures and courts, as well as federal courts, may play a role in the first instance.

The focus on public institutions should not obscure the fact that private actors, including firms themselves, may likewise have a role to play in the law of the corporation as environmental law, a role that may be especially significant in a deregulatory environment. Firms and private actors are not merely passive recipients of positive law. They can actively shape these legal doctrines through their own commitments. The values that have shaped different legal doctrines have evolved over time. Tort law began as an exercise in assigning moral responsibility before the influence of the law and economics movement transformed its doctrines into engines for reducing the social costs of accidents.[389] Constitutional standards for what constitutes cruel and unusual

387. *Cf.* Light, *Regulatory Horcruxes*, *supra* note 18, at 1662-65 (discussing SEC environmental disclosures as an example of such regulatory fragmentation).

388. Of course, these external actors may be subject to their own deregulatory pressures, but a discussion of such pressures is outside the scope of this Article.

389. *See* GUIDO CALABRESI, THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS 311-12 (5th prtg. 1977) (noting that the fault system in tort law "carr[ies] moral connotations" but advocating instead a system in which the costs of accidents are allocated to those who can "avoid accidents most cheaply").

punishment under the Eighth Amendment have likewise changed over time to take into account "evolving standards of decency" in society.[390] And one law and economics scholar has recently called for a focus on macro- rather than microeconomic concerns in corporate law during specific times in the business cycle.[391]

Private firms and other private actors like stakeholder groups and NGOs have a significant role to play in shaping the norms that influence the law of the corporation.[392] This dynamic is most obvious in the SEC disclosure context. Increasing investor demand for social and environmental disclosure can influence the legal doctrine of materiality in a significant, direct way. The definition of materiality derives from what a reasonable investor seeks to understand about a firm before purchasing or trading its securities. In such cases, the private-sector influence on the development of the law may play an especially significant role in driving the integration of the environmental priority principle.

Conclusion

Environmental law, broadly construed, includes positive law governing the corporation and its behavior in the marketplace. Although traditional environmental law has achieved much success, it is ill-equipped to address fully the massive problems and cumulative harms that remain, like climate change. Expanding our understanding of environmental law to include these fields that are critical to its core will strengthen its ability to address such harms. And in a deregulatory environment, a pluralistic approach is especially important. The potential for these fields of law to operate in greater confluence with environmental values and goals is worthy of sustained focus within environmental law scholarship.

390. *See* Moore v. Texas, 137 S. Ct. 1039, 1048 (2017) (quoting Hall v. Florida, 134 S. Ct. 1986, 1992 (2014)).

391. *See* Yair Listokin, *Law and Macroeconomics: The Law and Economics of Recessions*, 34 YALE J. ON REG. 791 (2017) (arguing that because the economy functions differently at the "zero lower bound" (when short-term interest rates reach zero), the law should be interpreted differently at that time).

392. *Cf.* Neil Gunningham et al., *Social License and Environmental Protection: Why Businesses Go Beyond Compliance*, 29 LAW & SOC. INQUIRY 307, 331 (2004) (noting multidirectional influences between the social and legal licenses to operate).