

## THE NEW WAL-MART EFFECT: THE ROLE OF PRIVATE CONTRACTING IN GLOBAL GOVERNANCE

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*This Article argues that networks of private contracts serve a public regulatory function in the global environmental arena. These networks fill the regulatory gaps created when global trade increases the exploitation of global commons resources and shifts production to exporting countries with lax environmental standards. As critics of trade liberalization have noted, public responses often are inadequate to address the attendant environmental harms. This Article uses empirical data to examine how private contracting regulates firm behavior, focusing on supply-chain contracting. The Article shows that more than half of the largest firms in eight retail and industrial sectors impose environmental requirements on their domestic and foreign suppliers. This contracting, which the Article terms “the new Wal-Mart effect,” reduces externalities by translating a complex mix of social, economic, and legal incentives for environmental protection into private contractual requirements. After demonstrating that private environmental contracting is an important part of global environmental governance, the Article examines the efficacy and accountability of this regime. The Article concludes that the private contracting regime often is preferable to the alternatives: lax national and international regulation of firms in many exporting countries, and markets that lack private environmental contracting. Finding much promise in the private contracting regime, the Article concludes by suggesting new strategies for governments, nongovernmental organizations, and firms.*

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## INTRODUCTION

A new form of governance is emerging that achieves traditionally public ends through private contracting. In response to a variety of social, economic, and legal incentives, many of the largest firms in developed countries are imposing private contractual environmental requirements on suppliers

and other contractors in developing countries. Nongovernmental organizations (NGOs), rather than lobbying national and international governmental bodies to generate public requirements, are using consumer pressure to demand that corporations engage in this form of private regulation. This Article asserts that the resulting networks of private contracts form an integral part of the emerging global environmental governance regime.

In the last decade, domestic and international law scholars have begun to shift from the traditional focus on states and governments to a focus on public-private collaborative governance<sup>1</sup> and postsovereign public-private hybrids.<sup>2</sup> The common feature of this work is the understanding that government acts in various forms of collaboration with private parties. Nevertheless, government remains central to the enterprise.

More recently, scholars have begun to note the importance of private governance for fields that have traditionally been the subject of state-centric public regulation.<sup>3</sup> This new global private governance is global, rather than international, in that nation-states are not participants. It is private in that it does not include ongoing government involvement and in many cases bypasses government altogether. Scholars have focused in large part on private activities that most closely resemble public governance, such as collective private standard setting and compliance certification. Examples of private environmental standards include the International Organization for Standardization (ISO) 14001 environmental management standard;<sup>4</sup> the Forest Stewardship Council (FSC), Sustainable Forestry Initiative (SFI), and Pan-European

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1. See Jody Freeman, *Collaborative Governance in the Administrative State*, 45 UCLA L. REV. 1 (1997); Jody Freeman, *The Private Role in Public Governance*, 75 N.Y.U. L. REV. 543 (2000).

2. See, e.g., Daniel C. Esty, *Good Governance at the Supranational Scale: Globalizing Administrative Law*, 115 YALE L.J. 1490, 1537 (2006) (examining implications of new forms of global governance for administrative law); Bradley C. Karkkainen, *Post-Sovereign Environmental Governance*, 4 GLOBAL ENVTL. POL. 72, 74 (2004) (noting that scholarship regarding international environmental policy tends to focus on the role of the state, whether by vertical institutionalists or horizontal diffusionists).

3. See, e.g., Walter Mattli & Tim Büthe, *Global Private Governance: Lessons From a National Model of Setting Standards in Accounting*, 68 LAW & CONTEMP. PROBS. 225 (2005) (noting the emergence of global private governance regarding accounting standards).

4. See Matthew Potoski & Aseem Prakash, *Regulatory Compliance in Nongovernmental Regimes? Cross-National Adoption of ISO 14001 Certifications*, 66 J. POL. 885, 886–91 (2004); Aseem Prakash & Matthew Potoski, *Racing to the Bottom? Trade, Environmental Governance, and ISO 14001*, 50 AM. J. POL. SCI. 350, 351–52 (2006) [hereinafter Prakash & Potoski, *Racing to the Bottom*]. The International Organization for Standardization (ISO) has been described both as a nongovernmental organization and as a public-private hybrid. See Jennifer Clapp, *The Privatization of Global Environmental Governance: ISO 14000 and the Developing World*, 4 GLOBAL GOVERNANCE 295, 301 (1998).

Forest Certification Council (PEFC) forestry standards;<sup>5</sup> the Marine Stewardship Council (MSC) fisheries standards;<sup>6</sup> and the Equator Principles for environmental assessment in project finance lending.<sup>7</sup>

These private activities constitute a form of governance in that they seek to restrict firm behaviors that cause environmental harms, a traditional function of government regulators. They also may serve as an interim form of private control pending government regulation and in some cases substitute for or displace government regulation altogether. Given these traditional public regulatory attributes, scholars have examined the new global private governance through the efficacy and accountability criteria commonly applied to national and international public governance.<sup>8</sup>

Although global private governance scholarship has shed light on the role of private standard-setting organizations, this Article moves the discussion forward by examining the influence of the vast network of private agreements that impose environmental and other standards, whether collectively or unilaterally adopted. The Article argues that although in some cases these agreements may simply be the product of public or private standards, in many cases the agreements constitute a discrete form of global governance. The Article focuses on agreements that are entered into in supply chains where pressures on a firm in an importing (often developed) country induce the firm to impose conditions on a firm in an exporting (often developing) country regarding not just the environmental attributes of the good or service purchased, but the environmental attributes of the process by which it was produced.<sup>9</sup> Based on an empirical study of seventy-four firms in eight sectors,

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5. See, e.g., BENJAMIN CASHORE, GRAEME AULD & DEANNA NEWSOM, *GOVERNING THROUGH MARKETS: FOREST CERTIFICATION AND THE EMERGENCE OF NON-STATE AUTHORITY* 5, 13–16 (2005); Errol Meidinger, *The Administrative Law of Global Private-Public Regulation: The Case of Forestry*, 17 EUR. J. INT'L L. 47, 48–57 (2006).

6. See Marine Stewardship Council, *MSC Principles and Criteria for Sustainable Fishing* (Nov. 2002), available at [http://www.msc.org/assets/docs/fishery\\_certification/MSCPrinciples&Criteria.doc](http://www.msc.org/assets/docs/fishery_certification/MSCPrinciples&Criteria.doc).

7. See Andrew Hardenbrook, *The Equator Principles: The Private Financial Sector's Attempt at Environmental Responsibility*, 40 VAND. J. TRANSNAT'L L. (forthcoming 2007); Natalie L. Bridgeman & David B. Hunter, *Narrowing the Accountability Gap: Toward a New Foreign Investor Accountability Mechanism* (Sept. 2006) (unpublished manuscript, on file with author).

8. See, e.g., Benedict Kingsbury et al., *The Emergence of Global Administrative Law*, 68 LAW & CONTEMP. PROBS. 15, 23 (2005) ("cautiously" suggesting that conceptions of the global regulatory regime should be extended to include private standard-setting organizations that carry out regulatory functions); Meidinger, *supra* note 5, at 47.

9. The assumption that developed countries are the importing parties and developing countries are the exporting parties does not always apply. See Thomas L. Friedman, Op-Ed., *Red China or Green?*, N.Y. TIMES, June 30, 2006, at A23 (noting that China has become more sensitive to its domestic environmental problems arising from the manufacture of goods for export but that it is unclear whether it is sensitive to the environmental problems arising from its importation of natural resources).

the Article finds that over half of those firms impose environmental requirements on their suppliers. The firms that impose these supply-chain requirements are often the largest firms in their sectors, and they represent more than 78 percent of the total sales of the top firms in the sectors studied.

The pressure on a firm to impose supply-chain requirements may arise from the preferences of customers, investors, employees, or managers;<sup>10</sup> the desire to avoid liability or preempt government regulation; or the need to assure investors about long-term availability of raw materials.<sup>11</sup> This Article focuses principally on the role of consumer preferences. Environmental NGOs often shape or activate these consumer preferences and seek to convert them into credible threats of boycotts or negative public relations campaigns.<sup>12</sup> The resulting private environmental contracting serves as a remarkably direct form of governance that extends from the public (in the form of consumers) in one country through an importing firm to an exporting firm in another country.

In Part I, the Article examines the regulatory gap that arises when global trade shifts production to exporting countries with lax environmental standards or increases the exploitation of global commons resources. Importing states face collective action problems regarding global commons resources. They also must overcome numerous hurdles to regulate the behavior of firms in exporting countries. For a variety of reasons, the preferences of the citizens of an importing country may be not pursued by the state. Even if the state chooses to pursue such regulation, it may be unable to do so for reasons ranging from a lack of resources or capture, to the problems of working through cumbersome bilateral or multilateral international processes. In addition, the World Trade Organization's (WTO) determination that process- as opposed to product-based requirements can be nontariff trade barriers is a substantial barrier to unilateral state action.<sup>13</sup>

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10. Empirical literature and anecdotal information suggest that the personal norms of top managers may have a substantial influence on the environmental behavior of their firms. See, e.g., Michael P. Vandenbergh, *Beyond Elegance: A Testable Typology of Social Norms in Corporate Environmental Compliance*, 22 STAN. ENVTL. L.J. 55, 78–80 (2003); Amanda Griscom Little, *Don't Discount Him: An Interview With Wal-Mart CEO H. Lee Scott*, GRIST, Apr. 12, 2006, at 10, <http://www.grist.org/news/maindish/2006/04/12/griscom-little/index.html> (noting that Wal-Mart's motivations included not only greater efficiency but also the personal views of the firm's chief executive officer).

11. See discussion *infra* notes 157–158 and accompanying text.

12. See Edward L. Rubin, *Passing Through the Door: Social Movement Literature and Legal Scholarship*, 150 U. PA. L. REV. 1, 5–8 (2001). For a discussion of consumer behavior regarding the environmental harms caused by the production of consumer goods, see Douglas Kysar, *Preferences for Processes: The Process/Product Distinction and the Regulation of Consumer Choice*, 118 HARV. L. REV. 525, 537–38 (2004).

13. See Steve Charnovitz, *Environmentalism Confronts GATT Rules: Recent Developments and New Opportunities*, 27 J. WORLD TRADE 37, 40 (1993).

In Part II, the Article examines the extent and influence of the private environmental contracting that has emerged as global trade has increased. The new Wal-Mart effect occurs when a mix of social, economic, and legal factors induces a firm to impose on its suppliers private environmental or other requirements that are traditionally the subject of government regulation.<sup>14</sup> Sources of data on private supply-chain agreements are difficult to identify, but an analysis of the environmental policies of firms in eight major retail and industrial sectors demonstrates that private environmental contracting is widespread. In addition, data from a study of supply agreements as well as acquisition and credit agreements filed with the U.S. Securities and Exchange Commission (SEC) demonstrates the prevalence of environmental terms in these agreements.

Part III argues that private environmental contracting should be treated as a form of global private governance and examines whether private contracting satisfies democratic concerns for efficacy and accountability. The efficacy of this private contracting is a function of the extent and content of the standards as well as of their enforcement. Although the extent, content, and enforcement of the standards varies widely among the retail and industrial sectors studied, early indications suggest that the agreements are having an important influence on the environmental behavior of exporting firms over and above the influence of existing public regulatory requirements.

The accountability analysis in Part III begins by examining the difficulty of identifying the stakeholders to whom the environmental contracting parties are or should be accountable. Concluding that the customers of the importing firms are unambiguous stakeholders, the Part explores the ability of these customers to hold the contracting parties accountable. The Part then

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14. The phrase "the Wal-Mart effect" has been used by reporters in the popular press since at least 1990, see Word Spy, *Wal-Mart Effect* (Dec. 12, 2003), <http://www.wordspy.com/words/wal-marteffect.asp> (citing Julie Morris, *Store Shuts Doors on Texas Town*, USA TODAY, Oct. 11, 1990, at A3), and more recently by academics, see, e.g., Pankaj Ghemawat & Ken A. Mark, Op-Ed., *The Real Wal-Mart Effect*, HARV. BUS. SCH. WORKING KNOWLEDGE, Aug. 23, 2006, <http://hbswk.hbs.edu/item/5474.html> (updating the New York Times editorial on Wal-Mart by a Harvard Business School professor and a business consultant). The term also has been used as the title of a recent book by Charles Fishman. See CHARLES FISHMAN, *THE WAL-MART EFFECT* (2006). Fishman and others use the term to include the wide range of economic and social effects that arise from this particular retailer with its massive size and price-focused corporate philosophy. In contrast, as used in this Article, the new Wal-Mart effect refers to a phenomenon that has emerged recently as a result of the legal, social, and economic influences on Wal-Mart and other large firms: the use of supply-chain contracting to impose on suppliers requirements that are traditionally the subject of governmental regulation. Although Fishman noted the potential for "a completely new kind of Wal-Mart effect—Wal-Mart using its enormous purchasing power not just to raise the standard of living for its customers, but also for its suppliers," *id.* at 181, his book predates Wal-Mart's recent adoption of many environmental supply-chain requirements.

compares private environmental contracting to other governance regimes and to private markets without private environmental contracting, and it offers suggestions to improve the efficacy and accountability of the private contracting regime. The Article concludes by suggesting that although private environmental contracting is potentially deeply problematic, it may be the only viable means to fill important gaps in the regulatory regime.

## I. THE REGULATORY GAPS

Critics of international trade point to threats to the environment caused by firms that extract resources from two sources: (1) from developing countries to feed consumer demand in developed countries; and (2) from global commons resources not located within the territory of any country. Examples of harms that occur within the borders of developing countries include tropical deforestation and releases of toxic substances that threaten human or ecosystem health. Examples of harms to global commons resources include depletion of pelagic fisheries and climate change.

For a variety of reasons, a firm in an exporting country may be able to externalize the environmental costs of its business activities. The resource may be privately owned, but the private property regime may be inadequate to force the firm to internalize the costs of its activities. Whether or not the resource is privately owned, the government of the exporting country may lack the expertise or resources to regulate adequately, or it may be captured by industry. Of course, government underregulation also may reflect the preferences of its citizens: Economic conditions may be sufficiently dire that citizens of the exporting country demand economic activity regardless of the externalized environmental harms.<sup>15</sup> Even in the absence of one of these constraints, race-to-the-bottom pressures may prevent the exporting country from adopting and enforcing a regulatory regime that would force the firm to internalize the environmental harms of its activities.<sup>16</sup> As to global commons resources, for obvious reasons firms extracting these resources also may have

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15. Richard Revesz has made a similar point regarding the competition for industrial development in the United States among richer and poorer states. See Richard L. Revesz, *The Race to the Bottom and Federal Environmental Regulation: A Response to Critics*, 82 MINN. L. REV. 535, 536 (1997).

16. The race-to-the-bottom phenomenon on the global level is the subject of conflicting theoretical and empirical studies. See Robert J. Fowler, *International Environmental Standards for Transnational Corporations*, 25 ENVTL. L. 1 (1995) (reviewing studies that found little correlation between relocation decisions by transnational firms and the leniency of environmental laws); Prakash & Potoski, *Racing to the Bottom*, *supra* note 4, at 352–53 (claiming “little empirical support” for the race-to-the-bottom thesis); Richard B. Stewart, *Environmental Regulation and International Competitiveness*, 102 YALE L.J. 2039 (1993) (evaluating the race-to-the-bottom thesis on the international level).

incentives to deplete them. Efforts to change these incentives often require difficult forms of international cooperation in standard setting and enforcement.

These types of environmental threats are difficult to address under traditional conceptions of public international environmental law and policy.<sup>17</sup> The governments of importing countries face sovereignty barriers to regulating the environmental behavior of firms operating solely in other countries. Similar problems arise for firms that extract global commons resources from one country but that are based in other countries. At least 65,000 multinational corporations (MNCs) operate roughly 850,000 affiliates around the world, providing a potential regulatory target for the countries in which MNCs are headquartered.<sup>18</sup> Yet importing countries are often unable to marshal the political will to force the MNCs within their jurisdictions to change the behavior of their affiliates or suppliers in exporting countries.

Citizens of importing countries who hold preferences for reducing environmental harms in exporting countries face collective action problems in inducing their governments to act. In addition, if the citizens of an importing country are thought of as the principals, they must influence a daunting number of agents if they seek to use government action to induce behavior change by an exporting firm in a developing country. They must first influence the government of the importing country, either directly or through an NGO. The government of the importing country then must influence the exporting country, either directly or through an international organization, and the exporting country must finally affect the behavior of the exporting firm.<sup>19</sup> Success by these citizen principals in some cases thus will require them to induce fourth- or fifth-order agents to act on their behalf. Even if the citizens overcome collective action and principal-agent problems, their governments may face many of the same barriers faced by the governments of exporting countries.

The market failures that contribute to environmental harms may be exacerbated in the new global trade regime. In particular, the environmental

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17. See, e.g., Errol E. Meidinger, *Forest Certification as Environmental Law Making by Global Civil Society*, in *SOCIAL AND POLITICAL DIMENSIONS OF FOREST CERTIFICATION* 293, 309 (Errol Meidinger, Chris Elliott & Gerhard Oesten eds., 2003) (noting that "progress through the Westphalian system of nation-state negotiations has been painfully slow, while the growth of serious transnational environmental problems has been remarkably rapid").

18. See U.N. CONFERENCE ON TRADE & DEV., *WORLD INVESTMENT REPORT 2002*, at xv (2002).

19. David Vogel has asserted that stringent government regulatory standards in importing countries may induce exporting countries to develop similar governmental standards, a phenomenon he terms the "California Effect." DAVID VOGEL, *TRADING UP: CONSUMER AND ENVIRONMENTAL REGULATION IN A GLOBAL ECONOMY* 248 (1995). In contrast, the effect described in this Article concerns the imposition of private standards on firms in exporting countries.



harms caused by satisfying developed world consumer demand may not be apparent to the consuming population when the production occurs in a distant country. Binding international agreements calling for limits on unsustainable practices may not exist, may be inadequate, or may lack supranational institutions for enforcement. Unilateral action by importing countries may be barred by the WTO, which limits the extent to which importing countries can impose process standards on imports.<sup>20</sup> The United Nations' recent attempts to extend to private corporations the international legal rules applicable to governments also hold limited prospects for addressing the environmental harms arising from global trade.<sup>21</sup>

## II. PRIVATE STANDARDS AND PRIVATE CONTRACTING

In response to the gap in public regulation of exporting firms' environmental behavior, global private governance has emerged. A principal driving force for this private governance is the preference of individuals in importing countries for sustainable practices in exporting countries, although the preferences of investors and firm employees, as well as the weak threat of government intervention, also may be influential.<sup>22</sup> For the reasons discussed above, in many situations those preferences cannot be exercised effectively by civic behavior such as voting or public commentary directed at government. Instead, individuals act on those preferences through their private market behavior (as consumers or investors) or through their behavior as employees and managers of firms. These preferences are both reflected by and stimulated by NGOs, which also facilitate the application of pressure on

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20. Charnovitz, *supra* note 13, at 37–40. For discussions of the extent to which product-based restrictions may be permissible, see generally Steve Charnovitz, *The Law of Environmental "PPMs" in the WTO: Debunking the Myth of Illegality*, 27 YALE J. INT'L L. 59 (2002); Sanford E. Gaines, *Processes and Production Methods: How to Produce Sound Policy for Environmental PPM-Based Trade Measures?*, 27 COLUM. J. ENVTL. L. 383 (2002); Robert Howse & Donald Regan, *The Product/Process Distinction—An Illusory Basis for Disciplining "Unilateralism" in Trade Policy*, 11 EUR. J. INT'L L. 249 (2000).

21. See Posting of Peter Spiro to *Opinio Juris*, John Ruggie and "The Norms," <http://www.opiniojuris.org/posts/1154109875.shtml> (July 28, 2006, 14:04 EST) (discussing the status of the U.N. Human Rights Commission's Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises With Regard to Human Rights).

22. A firm's social license to operate is in large part driven by customer, investor, manager, and local community preferences for environmental protection. See Neil A. Gunningham, Dorothy Thornton & Robert A. Kagan, *Motivating Management: Corporate Compliance in Environmental Protection*, 27 LAW & POL'Y 289, 300–07 (2005); see also Vandenberg, *supra* note 10, at 67–68 (socially responsible firm managers); Jason Scott Johnston, *Signaling Social Responsibility: On the Law and Economics of Market Incentives for Corporate Environmental Performance* (Univ. of Pa. Law Sch., Inst. for Law & Econ., Research Paper No. 05-16, 2005), available at <http://ssrn.com/abstract=725103> (socially responsible investors).

private firms. Private firms respond by participating in collective standard setting with other private parties (for example, other private firms and NGOs) and by unilaterally adopting internal firm standards (such as procurement policies and practices). The private standards then affect the firms' decisions about which products or services to buy, and in many cases are included as express provisions in contracts.<sup>23</sup> Private environmental standard setting occurs in two principal forms: (1) collective standard setting by private multiparty organizations; and (2) unilateral standard setting by importing firms.

#### A. Private Standard Setting: Collective Standards

Collective standard setting by private organizations has taken several forms, including standards set through industry trade associations or ad hoc industry groups,<sup>24</sup> standards set through processes involving varying degrees of industry-NGO collaboration,<sup>25</sup> and NGO-set standards.<sup>26</sup> In some cases, the private collective standards are coupled with certification programs that include licensing and inspection by private parties—examples include the FSC and the ISO standards. The private standard-setting bodies and the standards they develop have the potential to affect a large number of firms in many sectors. For example, forty-one of the leading project finance lenders have now agreed to abide by the Equator Principles, which require environmental assessments of large projects in the developing world.<sup>27</sup>

The extent, influence, and implications of these environmental standards and standard-setting bodies have been the subject of a growing body of scholarly research in the last several years.<sup>28</sup> Although much of the scholarly

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23. For the purposes of this Article, I call firm purchases of products or services pursuant to such internal firm standards "private environmental contracting," whether the firm standards are included as terms in an express written contract or whether the standards simply determine whether the firm would enter into the contract. See discussion *infra* Part III.B.

24. Examples include the Sustainable Forestry Initiative (SFI) standards and the Equator Principles.

25. These include the ISO, Marine Stewardship Council (MSC), and Global Environmental Management Initiative standards.

26. The Forestry Stewardship Council (FSC) standards are NGO-set standards. See, e.g., CASHORE, AULD & NEWSOM, *supra* note 5, at 3–5, 11–17 (describing the FSC standards as a form of "non-state market-driven governance"). Other private environmental codes of conduct include the Coalition for Environmentally Responsible Economies (CERES) Principles, the International Chamber of Commerce (ICC) Business Charter for Sustainable Development, the Caux Round Table's Caux Principles, and the nine principles adopted by the joint ICC–United Nations Global Compact. See Dinah Shelton, *The Utility and Limits of Codes of Conduct for the Protection of the Environment*, Presentation for ICECA 4–9 (Dec. 2001) (on file with author).

27. See Claudia H. Deutsch, *More Lenders Join in Pledge to Safeguard Environment*, N.Y. TIMES, July 6, 2006, at C11.

28. See, e.g., Mattli & Büthe, *supra* note 3 (examining international accounting standard setting); Meidinger, *supra* note 5 (examining FSC and other forestry standard setting).

attention to date has been directed toward the FSC and the ISO 14001 standards, the MSC certification and logo program for fisheries is also becoming increasingly influential. As of mid-2006, nineteen fisheries for Alaskan salmon, South African hake, and other fish had been certified, and seventeen more were undergoing full assessment.<sup>29</sup> At least two dozen of the world's largest firms in the retail food business use the MSC logo, ranging from Sainsbury's in the United Kingdom to ICA in Sweden and now Wal-Mart in the United States.<sup>30</sup> MSC chain-of-custody certifications have grown from a small handful in early 2000 to over two hundred in 2006, and the number of MSC-labeled products has grown to roughly four hundred.<sup>31</sup> The growth of the MSC and other private collective standards raises important questions ranging from whether the standard-setting bodies constitute a form of administration that should be studied as a component of a new global administrative law,<sup>32</sup> to questions about the extent to which the standards affect firm behavior and environmental quality.<sup>33</sup>

Standards issued by private standard-setting organizations serve several functions. They enable NGOs and the public to reduce the transaction costs arising from private monitoring and enforcement. They also enable governments in exporting countries to do the same: Private standards and certification programs enable exporting countries to demand performance directly from domestic exporting firms or the domestic operations of MNCs, even in the absence of public regulatory capacity to draft and enforce standards of conduct.<sup>34</sup> The standards also enable firms to create efficiencies through

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29. See Email from Alex Hickman, Logo Licensing Manager, Marine Stewardship Council Int'l Ltd., to Professor Michael Vandenbergh (attaching Marine Stewardship Council, List of Fisheries Certified to the MSC Standard (2006), and Marine Stewardship Council, List of Fisheries Undergoing Full Assessment to the MSC's Environmental Standard as of July 2006 (2006)) (on file with author).

30. See Marine Stewardship Council, List of Retail Brands Using the MSC Logo (2006) (on file with author).

31. See Marine Stewardship Council, MSC Chain of Custody Certifications Over Time (2006) (on file with author); Marine Stewardship Council, MSC-labeled Products as of 30th June, 2006 (2006) (on file with author).

32. See Kingsbury et al., *supra* note 8, at 23. For a discussion of global administrative law, see Esty, *supra* note 2.

33. See, e.g., Matthew Potoski & Aseem Prakash, *Green Clubs and Voluntary Governance: ISO 14001 and Firms' Regulatory Compliance*, 49 AM. J. POL. SCI. 235, 246–47 (2005) (concluding that adoption of the ISO 14001 environmental management standard improves firm environmental compliance); Michael W. Toffel, *Resolving Information Asymmetries in Markets: The Role of Certified Management Programs* (Univ. of Cal., Berkeley, Ctr. for Responsible Bus. Working Paper Series, Paper No. 19, 2005), available at <http://repositories.cdlib.org/crb/wps/19> (finding evidence that ISO 14001 elicits improvements in regulatory compliance and environmental performance). But see Paula C. Murray, *Inching Toward Environmental Regulatory Reform—ISO 14000: Much Ado About Nothing or a Reinvention Tool?*, 37 AM. BUS. L.J. 35, 49–50 (1999) (noting doubts about whether ISO 14001 improves firm environmental performance).

34. For example, regulators may require adoption of forestry standards as a condition of conducting logging operations. See Meidinger, *supra* note 5, at 50.

harmonized standards and to appropriate an organization's reputation to facilitate their response to consumer, investor, or manager pressure for environmental protection.<sup>35</sup> Of course, the standards also may enable firms to engage in "greenwashing"<sup>36</sup> and in various forms of anticompetitive behavior.<sup>37</sup>

#### B. Private Standard Setting: Unilateral Standards

The second form of global private environmental standard setting has received far less scholarly attention. In this second form, importing firms or MNCs with operations in importing and exporting countries (often separately incorporated subsidiaries) respond to customer or NGO pressures in importing countries by unilaterally adopting policies that apply to their operations or purchases in the exporting nation. This unilateral firm standard setting often involves standards tailored to the particular operations of the adopting firm, or to the particular pressures of the firm's customers, investors, or employees. An example is the set of environmental standards imposed on suppliers by General Electric (GE). GE began including environmental, health, and safety terms in its supplier contracts in 1997.<sup>38</sup> Although the standards themselves are not publicly available, based on public comments by GE managers, the standards appear to be GE-specific standards and may have been adopted before many of the collective standards were finalized.<sup>39</sup> In addition, GE does not rely on external auditors to monitor suppliers but conducts audits using its own employees.<sup>40</sup>

As the GE example suggests, unilateral standard setting typically does not take place in public view. This form of standard setting is often only a matter of public record if the adopting firm or the parties it contracts with disclose the existence of the standards. Perhaps as a result, little has been written about the extent and influence of these unilateral firm standards.

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35. See Potoski & Prakash, *supra* note 33, at 235.

36. "Greenwashing" has been defined as the "dissemination of misleading information . . . to conceal . . . abuse of the environment in order to present a positive public image." Stephen M. Johnson, *Junking the "Junk Science" Law: Reforming the Information Quality Act*, 58 ADMIN. L. REV. 37, 41 n.6 (2006) (quoting THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (4th ed. 2000)).

37. For a discussion of anticompetitive behaviors, see *infra* text accompanying notes 156–158.

38. See Joyce Hedges, *Changing Face of Corporate Responsibility Detailed by IBM, General Electric Attorneys*, INT'L ENV'T DAILY, Apr. 21, 2006, at A2.

39. See *id.* Of course, as standards such as ISO 14001 are finalized, General Electric (GE) may be incorporating them into its firm standards.

40. See *id.* Environmental issues account for approximately 30 percent of the problems identified in the GE audits. See *id.*

### C. Private Contracting

Private standards, whether collectively or unilaterally generated, influence firm environmental behavior in exporting countries through contracts between importing and exporting firms, and through internal implementation when an MNC operates in the exporting and importing countries.<sup>41</sup> This Article focuses on the former. Environmental provisions could affect firm behavior in developing countries through a wide range of agreements, including supply agreements, merger and acquisition agreements, credit agreements, insurance agreements, and others. The Article focuses on the influence arising from supply-chain contracting, although it examines other types of contracting to demonstrate that supply-chain contracting is only one of many types of private environmental contracting.<sup>42</sup>

The collective or unilateral private standards discussed above may be included in the express terms of a contract or may simply influence the products or services purchased through procurement or other policies. The influence of private contracting on global private environmental governance is a function of how widespread environmental requirements are in cross-border contracts between firms, the terms of the contracts, and the enforcement of their terms. The Article first reviews the available information on supply agreements and then turns to acquisition, credit, and insurance agreements. The discussion below focuses on the frequency of environmental requirements, and Part III provides a more detailed analysis of the content of the requirements.

#### 1. Supply Agreements

The nature and extent of environmental terms in cross-border supply agreements are difficult to evaluate empirically. Few public sources exist of these supply agreements, corporate disclosure is often not required, and the literature on environmental supply-chain contracting typically makes only anecdotal

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41. Private standards also affect firm behavior in exporting countries without private contracting where multinational corporations (MNCs) adopt the private standards and operate directly in an exporting country without using a separately incorporated subsidiary; however, the extent of this form of MNC activity is unclear. See U.N. CONFERENCE ON TRADE & DEV., *supra* note 18, at xv (noting that in 2000 the 65,000 MNCs have 850,000 affiliates).

42. See P.N. Grabosky, *Green Markets: Environmental Regulation by the Private Sector*, 16 LAW & POL'Y 419, 429–32 (1994) (noting the importance of environmental requirements in supply chains); Johnston, *supra* note 22, at 15–20; Meidinger, *supra* note 5, at 58 (noting that although “global networks” such as supply chains are often “viewed as conduits rather than sources of action,” they also can be “understood as actors because they have built-in expectations and momentum”); Michael P. Vandenbergh, *The Private Life of Public Law*, 105 COLUM. L. REV. 2029 (2005).

mention of the extent of the contracting.<sup>43</sup> Nevertheless, analyses of the publicly released policies and statements of firms in several sectors, and of supply agreements filed with the SEC, suggest that environmental supply-chain contracting requirements are widespread and may be an important source of global private environmental governance.

a. Firm Policies and Statements

An analysis of the publicly available environmental policies and statements of firms in eight sectors confirms that a large number of firms impose environmental requirements on their suppliers and that these requirements often extend to suppliers in developing countries. To examine the extent of these environmental requirements, and to provide a basis for evaluating both the incentives for firms to adopt environmental supply-chain contracting requirements and their likely influence on suppliers, the sectors included in the analysis below include firms that are likely to have global supply chains. For each sector, the analysis examines the top ten firms in the sector (either by U.S. or by global sales) as identified by Hoovers, a Dun & Bradstreet affiliate. The study identifies supply-chain contracting by examining public disclosures of environmental supply-chain requirements.<sup>44</sup>

To evaluate the breadth of supply-chain contracting and to provide insights into the incentives that induce firms to impose supply-chain requirements, the analysis includes sectors comprised of large retail firms, mixed retail and industrial firms, and nonretail industrial firms. Three sectors are comprised principally of firms that have retail operations in developed countries and do little or no manufacturing (the discount and variety retail, home improvement and hardware retail, and office products retail sectors), two sectors are comprised principally of firms that have both retail and industrial operations (the automobile manufacturing and personal computers sectors), and three sectors are comprised principally of

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43. See, e.g., Richard N.L. Andrews et al., *Environmental Management Systems: History, Theory, and Implementation Research*, in REGULATING FROM THE INSIDE 31, 32 (Cary Coglianese & Jennifer Nash eds., 2001) (noting supply-chain environmental management requirements of several automakers); Grabosky, *supra* note 42, at 430 (noting that Volvo has imposed environmental management requirements on suppliers).

44. The study examines the environmental policies articulated on the websites of the top ten firms by sales in each sector, as well as securities disclosures and public comments by firm managers reported in the media. The analysis presumes that firms have incentives to disclose the fact that they impose environmental standards on suppliers. Interestingly, the vast majority of the disclosures discussed below occurred on websites or in publicly available environmental reports, not in Securities and Exchange Commission (SEC) filings. An analysis of the annual 10-K reports filed by the forty-one firms that filed reports during calendar year 2005 (the other firms are not U.S. firms or are not publicly traded) identified only Wal-Mart as having disclosed an environmental supply-chain contracting requirement.

firms that do not have retail operations (lumber and wood production, aluminum production, and industrial machinery and equipment manufacturing).

(1) Discount and Variety Retail

The top ten firms in the discount and variety retail sector in the United States are Wal-Mart, Kroger, Costco Wholesale, Target, Walgreens, Albertsons, Safeway, CVS, Ahold USA, and Loblaw.<sup>45</sup> The top ten firms in the sector have a combined total of approximately \$697 billion in annual sales. Of the ten largest firms, half (representing \$495 billion in sales) state that they impose environmental requirements on suppliers. The remaining firms (with \$202 billion in sales) do not indicate whether they impose environmental standards on suppliers.

Wal-Mart is the largest firm in the sector, with \$315 billion in annual sales worldwide,<sup>46</sup> 1.2 million employees in the United States and 600,000 in other countries, and 60,000 suppliers.<sup>47</sup> The potential for Wal-Mart to influence firms in developing countries is vast. For example, Wal-Mart imports roughly \$15 billion in goods from China annually.<sup>48</sup> Wal-Mart also has been the subject of NGO-led protests regarding a variety of environmental, health, safety, and labor issues, and recently began adopting a number of new policies. In 2006, Wal-Mart announced that it was “educating” suppliers about packaging reduction and other sustainability measures and was doubling its selection of organic products. In addition, it announced plans to purchase wild-caught fish for its North American market only from fisheries certified by the MSC.<sup>49</sup> The company will purchase fish only from MSC-certified suppliers and will give

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45. Alex Biesada, Hoovers, Discount & Variety Retail, <http://premium.hoovers.com/subscribe/ind/overview.xhtml?HICID=1530> (last visited Feb. 27, 2007). For most sectors, the analysis identifies the top ten firms in the sector in the United States in terms of total sales, although some of the sales may occur in foreign countries. For several sectors, data on the top U.S. firms by sales were not available, and the analysis examines the top global firms, based on global sales, or the firms identified as the “key” firms in the sector.

46. See Hoovers, Wal-Mart Stores, Inc., <http://premium.hoovers.com/subscribe/co/fin/factsheet.xhtml?ID=ffffrrjffhshhkjs&ticker=> (last visited Feb. 27, 2007).

47. See Wal-Mart Watch, Massive Reliance on Imports, [http://walmartwatch.com/issues/supplier\\_relationships](http://walmartwatch.com/issues/supplier_relationships) (last visited Feb. 15, 2007).

48. See Tyler Marshall et al., *Clothes Will Cost Less, but Some Nations Pay*, L.A. TIMES, Jan. 16, 2005, at A1.

49. See Will Martin, *Deal Means Wal-Mart Helps to Save Fisheries*, LIBERTY PAGE, Mar. 19, 2006, <http://www.liberty-page.com/issues/comparison/walmartfish.html> (noting that “roughly 70% of ocean fisheries are exploited to the max or over-exploited”); Wal-Mart Facts, Wal-Mart Takes Lead on Supporting Sustainable Fisheries (Feb. 3, 2006), <http://www.wal-martfacts.com/articles/1737.aspx> (quoting a Wal-Mart vice president for the proposition that “[t]his is both environmentally responsible and responsive to our customers”).

noncertified suppliers a three- to five-year grace period to develop programs for certification.<sup>50</sup> Wal-Mart's position as the largest seller of groceries in the United States,<sup>51</sup> and a major seller of wild-caught fish, has generated ripple effects throughout the grocery and fishing industries.<sup>52</sup>

The largest of the other firms in the sector that state that they impose environmental requirements on suppliers is Costco Wholesale (\$60 billion in sales),<sup>53</sup> which requires suppliers to comply with local environmental laws. Costco also "strongly encourages" suppliers to adopt "above and beyond goals" regarding hazardous materials handling and pollution control if not required by local laws.<sup>54</sup> Target (\$53 billion) and Albertsons (\$40 billion) require their suppliers to comply with the environmental laws of the host country.<sup>55</sup> Ahold (\$37 billion) imposes standards on suppliers of fish and coffee.<sup>56</sup>

The largest of the remaining five firms that do not disclose whether they impose environmental standards on suppliers is Kroger (\$61 billion in sales), which is the second largest firm in the sector and the second largest seller of groceries behind Wal-Mart. In addition, Walgreens (\$42 billion),<sup>57</sup> Safeway (\$38 billion),<sup>58</sup> CVS (\$37 billion),<sup>59</sup> and Loblaw (\$24 billion)<sup>60</sup> do not disclose whether they impose standards on suppliers.

50. See Wal-Mart Facts, *supra* note 49; see also *Wal-Mart to Toughen Foreign Standards*, USA TODAY, Oct. 21, 2005, at B1.

51. Hoovers, The Kroger Co., <http://premium.hoovers.com/subscribe/co/overview.xhtml?ID=ffffrxjcfjssshrx> (last visited Feb. 27, 2007).

52. For example, following Wal-Mart's announcement, two grocery chains in the United Kingdom—Waitrose and Marks & Spenser—also unveiled sustainable procurement policies for fish. See Sohani Crockett, *Minnow Catches a Giant Fish*, NEW STATESMAN (London), Mar. 13, 2006, at 16–17.

53. See Hoovers, *supra* note 46.

54. Costco Wholesale Corp., Vendor Code of Conduct § IX (n.d.), available at [http://media.corporate-ir.net/media\\_files/irol/83/83830/CCOST\\_vendor.pdf](http://media.corporate-ir.net/media_files/irol/83/83830/CCOST_vendor.pdf) (including a ban on ozone depleters).

55. See Target Corp., Target Corporation Corporate Responsibility Report 35–44 (Jan. 31, 2006), available at [http://sites.target.com/images/corporate/about/pdfs/corp\\_responsibility\\_report\\_0406.pdf](http://sites.target.com/images/corporate/about/pdfs/corp_responsibility_report_0406.pdf); Albertsons, Procurement Operating Policies 5 (Mar. 28, 2006), available at [http://www.albertsons.com/shared/download/pop\\_final.doc](http://www.albertsons.com/shared/download/pop_final.doc) (noting that Albertsons also will inspect suppliers for compliance with this provision).

56. See Ahold, Eco-Sound: Sustainable Fisheries, <http://www.ahold.com/page/694.aspx> (last visited Feb. 15, 2007) (noting standards for fish); Ahold, Utz Kapeh: Responsible Certified Coffee, <http://www.ahold.com/page/696.aspx> (last visited Feb. 15, 2007) (noting standards for coffee).

57. See Walgreen Co., Ethics Policy Statement 6 (July 12, 2006), available at <http://investor.walgreens.com/downloads/ethics.pdf>.

58. See Safeway, Environmental Status Report 2005: Summary (Apr. 28, 2006), available at [http://media.corporate-ir.net/media\\_files/irol/64/64607/ENVRPT2005Summary.pdf](http://media.corporate-ir.net/media_files/irol/64/64607/ENVRPT2005Summary.pdf); Safeway, Code of Business Conduct & Ethics, Environmental Compliance (n.d.), available at [http://media.corporate-ir.net/media\\_files/IROL/64/64607/governance/CodeofConduct\\_3142005.pdf](http://media.corporate-ir.net/media_files/IROL/64/64607/governance/CodeofConduct_3142005.pdf) (last visited Feb. 27, 2007).

59. See CVS Corp., Our Code of Conduct, Environmental Protection 7–8 (n.d.), available at [http://media.corporate-ir.net/media\\_files/IROL/99/99533/corpgov/CodeofConduct03.pdf](http://media.corporate-ir.net/media_files/IROL/99/99533/corpgov/CodeofConduct03.pdf). Note that CVS does require law compliance generally but does not indicate that it requires environmental law compliance.

60. See Loblaw Cos. Ltd., 2005 Annual Report 17 (2005), [http://www.loblaw.ca/en/inv\\_ar.html](http://www.loblaw.ca/en/inv_ar.html) (follow "2005 Annual Report" hyperlink).



## (2) Home Improvement and Hardware Retail

The home improvement and hardware retail sector had sales of roughly \$291 billion in 2005.<sup>61</sup> Home Depot and Lowe's control more than a third of the U.S. market. The top ten companies in the United States in this sector, representing over \$178 billion in sales, are Home Depot (\$81 billion), Lowe's (\$43 billion), Wolseley (\$20 billion), CCA Global (\$9 billion), Menard (\$7 billion), Sherwin-Williams (\$7 billion), Stock Building Supply (\$4 billion), 84 Lumber (\$3 billion), Ace Hardware (\$3 billion), and Do it Best (sales figures unavailable).<sup>62</sup>

The two largest firms in the sector, Home Depot and Lowe's, impose environmental requirements on their suppliers. Two of the other firms, Wolseley and Stock Building Supply, also appear to do so, although their disclosures are somewhat ambiguous. In the aggregate, these four firms comprise \$152 billion in sales, or 85 percent of all sales by the top ten, and 52 percent of all sales in the sector. Firms that do not disclose whether they impose environmental requirements are CCA Global Partners, Menard, Sherwin-Williams, Ace Hardware, Do It Best, and 84 Lumber.

Home Depot is perhaps the best known example in the sector of a firm that imposes environmental contracting requirements on suppliers. Home Depot has roughly 2000 stores generating annual sales of approximately \$82 billion. Home Depot responded to roughly six hundred protests by Rainforest Action Network by agreeing to purchase as much FSC-certified wood as it can locate.<sup>63</sup> Lowe's, which has 1250 stores generating \$43 billion in sales, apparently followed suit after a meeting with, and two phone calls from, NGO representatives.<sup>64</sup>

## (3) Office Products Retail and Distribution

The ten largest firms in the United States by sales in the office products retail and distribution sector are Staples, Office Depot, OfficeMax, Unisource, IKON, United Stationers, Corporate Express, S.P. Richards, School Specialty, and Global Imaging Systems.<sup>65</sup> The sector has more than \$300 billion in annual sales in the United States, and the top ten firms account for

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61. Alex Biesada, Hoovers, Home Improvement & Hardware Retail, <http://premium.hoovers.com/subscribe/ind/overview.xhtml?HICID=1539> (last visited Feb. 27, 2007).

62. See *id.* (follow hyperlinks for companies under "Key Companies" for sales amounts and years). The top ten ranking is based on 2004 total sales. *Id.*

63. See Meidinger, *supra* note 5, at 57–58.

64. See *id.* at 58.

65. Alex Biesada, Hoovers, Office Products Retail & Distribution, <http://premium.hoovers.com/subscribe/ind/overview.xhtml?HICID=1554> (last visited Feb. 27, 2007).

\$61 billion in sales. The three top firms are Staples (\$16 billion in sales), Office Depot (\$14 billion), and Office Max (\$9 billion). Environmental groups have targeted all three of these firms with boycotts or public relations campaigns directed at inducing the firms to adopt stronger environmental protection practices.<sup>66</sup> The two largest of these firms, Staples<sup>67</sup> and Office Depot,<sup>68</sup> representing \$30 billion or almost 50 percent of the sales of the top ten firms, state that they impose environmental requirements on their suppliers. The other firms in this sector do not disclose whether they impose environmental requirements on their suppliers.

#### (4) Automobile Manufacturing

The ten largest automobile manufacturing firms in the world are General Motors, Toyota, DaimlerChrysler, Ford, Volkswagen, Nissan, Honda, Peugeot, Fiat, and Renault.<sup>69</sup> The automobile manufacturing sector, including suppliers, accounted for more than 13 percent of all global exports by manufacturers in 2003.<sup>70</sup> Of the ten largest automobile manufacturers, six impose some form of environmental requirements on their suppliers (General Motors, DaimlerChrysler, Toyota, Ford, Nissan, and Fiat), and one has stated plans to do so in 2007 (Renault). These seven firms account for \$910 billion in sales, or 77 percent of the sales for the top ten firms in the automobile manufacturing sector.<sup>71</sup>

The major automobile manufacturers headquartered in the United States impose a variety of environmental requirements on their suppliers, whether domestic or foreign.<sup>72</sup> General Motors required first-tier suppliers to achieve ISO 14001 certification by the end of 2002.<sup>73</sup> DaimlerChrysler does

66. See ForestEthics, Press Releases, <http://www.forestethics.org/article.php?list=classt&type=20&class=10> (last visited Feb. 15, 2007).

67. Staples, Staples Environmental Paper Procurement Policy (n.d.), available at [http://www.staples.com/sbd/img/content/soul/pdf/staples\\_environmental\\_paper\\_procurement\\_policy.pdf](http://www.staples.com/sbd/img/content/soul/pdf/staples_environmental_paper_procurement_policy.pdf).

68. Office Depot, Office Depot Environmental Paper Procurement Policy & Vision Statement 2004, <http://www.community.officedepot.com/paperproc.asp>.

69. See James Bryant, Hoovers, Auto Manufacturing, <http://premium.hoovers.com/subscribe/ind/factsheet.xhtml?HICID=1019> (last visited Feb. 27, 2007).

70. See WORLD TRADE ORG., INTERNATIONAL TRADE STATISTICS 2004, at 137 tbl.IV.48 (2004).

71. See Bryant, *supra* note 69 (follow hyperlinks for companies under "Key Companies" for sales amounts).

72. See Andrews et al., *supra* note 43, at 32.

73. See *id.*; see also General Motors, 2005 Corporate Responsibility Report, Environmental Performance: Supplier Management: Actions, [http://www.gm.com/company/gmability/sustainability/reports/05/600\\_environment/2\\_twenty/621.html](http://www.gm.com/company/gmability/sustainability/reports/05/600_environment/2_twenty/621.html) (last visited Feb. 15, 2007) (discussing ISO 14001 and other policies); General Motors, 2005 Corporate Responsibility Report, Environmental Performance: Overview, [http://www.gm.com/company/gmability/sustainability/reports/05/600\\_environment/index.html](http://www.gm.com/company/gmability/sustainability/reports/05/600_environment/index.html) (last visited Feb. 15, 2007).

not yet require ISO 14001 compliance by all suppliers but anticipates doing so.<sup>74</sup> It does require its suppliers to comply with host country environmental laws and “encourages them to pursue proactive environmentally responsible practices.”<sup>75</sup> Ford Motor Company required that its first-tier suppliers achieve ISO 14001 certification by 2003 and has stated that “[s]uppliers that did not meet the deadline [for ISO 14001] are not eligible for Q1 status, which is a prerequisite for . . . future Ford business. We also encourage our suppliers to extend the benefits of improved environmental performance by implementing similar requirements for environmental management systems in their own supply base.”<sup>76</sup>

Several automobile manufacturers headquartered in Japan have imposed environmental management and performance standards on their suppliers. For example, Toyota has adopted environmental requirements for its suppliers that include ISO 14001 certification, compliance with the law of the host country (although it is unclear if this applies only in North America), and a ban on approximately 450 substances.<sup>77</sup> Although Nissan indicates that it requested rather than required ISO 14001 certification of its suppliers by March 2005, it asserts that 95 percent of its suppliers gained certification with ISO 14001 or Japanese Eco Action 21 by that date, suggesting that the request functioned as a requirement.<sup>78</sup> Although Honda encourages ISO 14001 certification by its suppliers, it is unclear if it requires ISO 14001 adoption or certification.<sup>79</sup>

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74. See Andrews et al., *supra* note 43, at 39. Although DaimlerChrysler is treated as a U.S.-headquartered company here, it also could be treated as a European-headquartered company.

75. DaimlerChrysler, The DaimlerChrysler Environmental Guidelines § 3, <http://www.daimlerchrysler.com/dccom/0,0-5-511488-1-513344-1-0-0-0-0-243-220714-0-0-0-0-0-0,00.html> (last visited Feb. 15, 2007).

76. Ford Motor Company, Sustainability Report 2004/05: Suppliers, <http://www.ford.com/en/company/about/sustainability/report/relSuppliers.htm> (last visited Feb. 15, 2007).

77. See Toyota, Environmental Guidelines for North American Suppliers, <http://www.toyota.com/about/environment/manufacturing/supplier.html> (last visited Feb. 15, 2007). In contrast, Mazda only indicates that it will give “purchasing priority” to suppliers with an environmental management system in place. See Mazda, Social & Environmental Report 2005 (2005), *available at* <http://www.mazda.com/csr/download/pdf/2005/e200501.pdf>. Although many of the chemicals banned by Toyota are likely also banned by national or international law, it is likely that some of the chemicals subject to the private ban are not subject to public bans in all jurisdictions in which Toyota operates. Toyota thus may be requiring law compliance for some chemicals, and may be setting an environmental performance standard for other chemicals that exceeds applicable existing public regulatory requirements. For some chemicals, this policy may have the effect of extending the reach of chemical regulations in some countries to all of the countries in which Toyota operates.

78. See Nissan, Environmental Report 2005, at 52 (2005), *available at* [http://www.nissan-global.com/EN/DOCUMENT/PDF/ENVIRONMENT/ER/2005/en\\_er2005\\_23.pdf](http://www.nissan-global.com/EN/DOCUMENT/PDF/ENVIRONMENT/ER/2005/en_er2005_23.pdf).

79. See Honda, 2005 North American Environmental Report (2005), *available at* [http://corporate.honda.com/images/banners/environment/Honda\\_2005\\_North\\_American\\_Environmenta\\_Report.pdf](http://corporate.honda.com/images/banners/environment/Honda_2005_North_American_Environmenta_Report.pdf).

The approaches taken by the European automobile manufacturers vary but are generally less extensive than those imposed by Japanese and U.S. automakers. Volkswagen<sup>80</sup> and Peugeot<sup>81</sup> do not assert that they impose ISO 14001 or other environmental requirements on their suppliers. Fiat appears to require ISO 14001 certification but only of suppliers that are large companies.<sup>82</sup> Renault does not indicate whether it currently imposes any environmental standards on suppliers but states that it intends to do so by 2007.<sup>83</sup>

#### (5) Personal Computers

The top ten firms in the personal computers sector in the United States had global sales of roughly \$336 billion in 2005. The top ten firms in the sector are Hewlett-Packard (\$87 billion in sales), Sony (\$64 billion), Dell (\$56 billion), Toshiba (\$54 billion), NEC (\$41 billion), Apple Computer (\$14 billion), Acer (\$7 billion), Fujitsu Siemens Computers (\$6 billion), Gateway (\$4 billion), and Lenovo (\$3 billion).<sup>84</sup> Hewlett-Packard and Dell account for roughly half of the personal computer market in the United States.

The seven largest firms in the sector (Hewlett-Packard, Sony, Dell, Toshiba, NEC, Apple Computer, and Acer), accounting for \$323 billion or 96 percent of sales, all impose environmental performance requirements on their suppliers and most impose law compliance requirements. Two (Sony and Acer) also require environmental management systems (EMSs), and two (Hewlett-Packard and Toshiba) prefer suppliers who adopt EMSs.<sup>85</sup>

In addition, several of these firms have not only announced environmental procurement requirements but also have imposed explicit contract terms on

80. See Volkswagen AG, Sustainability: Achievements, [http://www.volkswagen-sustainability.com/nhk/nhk\\_folder/en/leistungen/umwelt/umweltmanagement.html](http://www.volkswagen-sustainability.com/nhk/nhk_folder/en/leistungen/umwelt/umweltmanagement.html) (last visited Feb. 15, 2007).

81. See PSA Peugeot Citroën, Sustainable Development, <http://www.sustainability.psa-peugeot-citroen.com> (last visited Feb. 15, 2007).

82. Fiat states that "failure by large companies to obtain this certification is no longer tolerable." Fiat Group, 2005 Sustainability Report 59 (2006), available at [http://www.fiatgroup.com/comuni/php/file\\_get.php?w=NG5ULL6GSGVSZFPYDAOI](http://www.fiatgroup.com/comuni/php/file_get.php?w=NG5ULL6GSGVSZFPYDAOI).

83. Renault, Develop Environmental Management, [http://www.renault.com/renault\\_com/en/main/30\\_DEVELOPPEMENT\\_DURABLE/40\\_Performances/20\\_Environnement/70\\_Management\\_de\\_l\\_environnement/Objectifs/index.aspx](http://www.renault.com/renault_com/en/main/30_DEVELOPPEMENT_DURABLE/40_Performances/20_Environnement/70_Management_de_l_environnement/Objectifs/index.aspx) (last visited Feb. 15, 2007). In addition to the listed firms, Volvo also imposes environmental standards on its suppliers. See Grabosky, *supra* note 42, at 430.

84. See Josh Lower, Hoovers, Personal Computers, <http://premium.hoovers.com/subscribe/ind/overview.xhtml?HICID=1105> (follow hyperlinks for companies under "Key Companies" for sales amounts) (last visited Feb. 27, 2007).

85. An environmental management system (EMS) consists of "a set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency." U.S. Environmental Protection Agency, Environmental Management Systems (Mar. 1, 2006), <http://www.epa.gov/ems>.

their suppliers. An example is Hewlett-Packard, which has adopted the Electronic Industry Code of Conduct (EICC), along with other firms in the personal computers and related sectors such as Celestica, Cisco, Dell, Flextronics, Foxconn, IBM, Intel, Jabil, Lucent, Microsoft, Sanmina SCI, Seagate, and Sony.<sup>86</sup> The EICC requires firms that adopt it to impose standards only on next-tier suppliers, but it encourages participants to “regard the code as a total supply chain initiative.”<sup>87</sup> Hewlett-Packard not only has implemented specifications for suppliers but has required suppliers to execute an agreement that supplements supply contracts.<sup>88</sup> The three smallest firms in the personal computers sector (Fujitsu Siemens Computers, Gateway, and Lenovo), accounting for 5 percent of sales, do not disclose whether they impose environmental requirements on suppliers.

In addition to these ten firms in the personal computers sector, several other companies that make computers or other electronic products as part or all of their business have imposed environmental terms on their suppliers. For example, in 2004 IBM adopted supplier conduct principles that require suppliers to comply with minimum environmental, labor, health, and safety requirements.<sup>89</sup> The firm adopted the principles after adverse publicity arising from a 2002 NGO report on the disposal of electronic waste in Pakistan, India, and China, and a 2004 report on working conditions in facilities operated by suppliers to IBM and other computer makers.<sup>90</sup>

#### (6) Lumber and Wood Production

The top ten U.S. firms in the lumber, wood production, and timber operations sector had combined sales of more than \$91 billion in 2005. These top ten firms by 2005 sales are<sup>91</sup>: International Paper (\$24 billion), Weyerhaeuser (\$23 billion), Georgia-Pacific (\$20 billion in 2004 sales), OfficeMax (\$9 billion),

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86. See Hewlett-Packard, Electronic Industry Code of Conduct 11 (Dec. 15, 2005), available at <http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/supcode.pdf>.

87. See *id.* at 1.

88. Hewlett-Packard has made the code of conduct, general specification for the environment, and supplemental agreement available on the internet. Hewlett-Packard, Supply Chain Social and Environmental Responsibility, [http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/ser\\_program.html](http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/ser_program.html) (last visited Feb. 15, 2007); Hewlett-Packard, Supplier Social & Environmental Responsibility Agreement (Apr. 24, 2003), available at <http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/supagree.pdf>.

89. See Hedges, *supra* note 38.

90. See *id.*

91. The Hoovers ranking uses 2004 data for Georgia Pacific and Universal Forest Products, whereas the data for all other firms are from 2005. See Patrice Sarath, Hoovers, Lumber, Wood Production & Timber Operations Overview, <http://premium.hoovers.com/subscribe/ind/overview.xhtml?HICID=1158> (follow hyperlinks for companies under “Key Companies” for sales amounts and years) (last visited Feb. 27, 2007).

MeadWestvaco (\$6 billion), Bowater (\$3 billion), Louisiana-Pacific (\$3 billion), Universal Forest Products (\$3 billion in 2004 sales), Potlatch (\$1 billion), and Sweetheart (recently acquired by Solo Cup, whose 2004 sales were \$2 billion).<sup>92</sup>

The timber industry has been the subject of sustained pressure by NGOs,<sup>93</sup> and six of the seven largest firms in the sector state that they impose some type of environmental requirements on their suppliers. All six impose SFI and law compliance requirements on their timber suppliers.<sup>94</sup> Potlatch, the ninth largest firm in the sector, states that it strives to impose FSC standards on suppliers.<sup>95</sup> Together, these seven firms account for \$80 billion in sales, or 88 percent of the sales by the top ten firms in the sector. Three firms do not disclose whether they impose standards on their suppliers (Office Max, Universal Forest Products, and Sweetheart/Solo Cup). These three firms are the fourth, eighth, and tenth largest firms in the sector, respectively.<sup>96</sup>

#### (7) Aluminum Production

The aluminum production sector includes firms whose principal business is aluminum production and other firms for which aluminum production is a small component of the business. The largest firms in the world whose principle business is aluminum production by sales are Alcoa (\$30 billion), Norsk Hydro (\$25 billion), Alcan (\$20 billion), and Nippon Light Metal (\$5 billion).<sup>97</sup> Of these four firms, none discloses that it imposes environmental requirements on its suppliers.<sup>98</sup>

92. See *id.*

93. See Meidinger, *supra* note 5, at 49–53.

94. See, e.g., International Paper, 2004–2006 Sustainability Update 11–12 (2006), available at [http://www.ipaper.com/PDF/PDFs\\_for\\_Our\\_Company/Sustainability%20Reports/IPsustainability2006.pdf](http://www.ipaper.com/PDF/PDFs_for_Our_Company/Sustainability%20Reports/IPsustainability2006.pdf).

95. See Potlatch Corp., Potlatch Policy for Procuring Logs and Fiber From Non-FSC-Certified Forestlands (n.d.), available at <http://www.potlatchcorp.com/envmnt/documents/PotlatchPolicyForProcuringLogsandFiberFromNon.doc>.

96. Other wood products firms also have adopted environmental procurement standards. For example, Boise Cascade has committed to not purchase wood from endangered forests. Boise Cascade, Timber and Fiber Procurement Policy, <http://www.bc.com/environment/policyProcure.jsp> (last visited Feb. 15, 2007).

97. See Peter Partheymuller, Hoovers, Aluminum Production, <http://premium.hoovers.com/subscribe/ind/factsheet.xhtml?HICID=1475> (follow hyperlinks for companies under “Key Companies” for sales amounts) (last visited Feb. 27, 2007).

98. The Hydro Aluminum SA web site states that “[w]hat we expect from our suppliers is based on the same requirements we expect [sic] from our own organization,” but it is not clear what level of law compliance or environmental performance the firm requires of itself, or if its expectation of suppliers is a requirement imposed on them. Hydro Aluminum SA, Selecting Suppliers the Hydro Way, [http://www.hydro.com/en/global\\_commitment/selecting\\_suppliers/index.html](http://www.hydro.com/en/global_commitment/selecting_suppliers/index.html) (last visited Oct. 31, 2006). Additionally, the aluminum sector is vertically integrated, which may affect the extent to which it has imposed requirements on suppliers.

## (8) Industrial Machinery and Equipment Manufacturing

The top ten firms in the industrial machinery and equipment manufacturing sector had sales of roughly \$211 billion in 2005.<sup>99</sup> According to Hoovers, the top ten firms in this sector worldwide are United Technologies (\$47 billion in sales), Caterpillar (\$41 billion), Mitsubishi Heavy Industries (\$24 billion), John Deere (\$22 billion), ABB (\$22 billion), MAN Aktiengesellschaft (\$17 billion), Komatsu (\$14 billion), Illinois Tool Works (\$13 billion), CNH Global (\$12 billion), and Parker Hannifin (\$9 billion).<sup>100</sup> Of these ten firms, seven state that they impose some type of environmental requirements on their suppliers and three do not. The seven firms account for \$154 billion, or 73 percent, of the \$211 billion in sales by the top ten firms in the sector.

The seven firms that impose environmental requirements on their suppliers—United Technologies, Mitsubishi Heavy Industries, John Deere, ABB, MAN Group, Komatsu, and Illinois Tool Works—vary in size and in the type of requirements imposed. United Technologies began to impose environmental standards on some suppliers in 2005, although the content of the requirements is unclear.<sup>101</sup> Mitsubishi Heavy Industries also imposes environmental standards on suppliers, although again the content is unclear.<sup>102</sup> John Deere imposes environmental law compliance requirements.<sup>103</sup> ABB requires ISO 14001 certification.<sup>104</sup> MAN Group imposes environmental law compliance and EMS requirements on its suppliers.<sup>105</sup> Komatsu requires that suppliers attain

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99. See Hoovers, Industrial Machinery & Equipment Manufacturing, <http://premium.hoovers.com/subscribe/ind/overview.xhtml?HICID=1397> (follow hyperlinks for companies under “Key Companies” for sales amounts) (last visited Feb. 27, 2007).

100. See *id.* Hoovers identifies these firms as the key firms in the sector, and for the purposes of this study, the key firms were assumed to be largest firms by sales.

101. The commitment is somewhat ambiguous, stating that United Technologies Corporation (UTC) “began the process of integrating environmental expectations for suppliers into UTC’s supplier programs.” United Technologies Corporation, Corporate Responsibility, <http://www.utc.com/responsibility/customers.htm> (last visited Feb. 15, 2007).

102. Mitsubishi states that it purchases “environmentally friendly goods based on the in-house guideline for purchasing ‘green goods.’” Mitsubishi Heavy Indus., 2005 MHI Social and Environmental Report 32 (2005), available at [http://www.mhi.co.jp/kankyohozen/2005pdf/2005\\_kankyohozen\\_e.pdf](http://www.mhi.co.jp/kankyohozen/2005pdf/2005_kankyohozen_e.pdf). In addition, the firm’s “Green Procurement/Purchasing” statement indicates that “MHI partially launched green purchasing—buying products and raw materials by selecting those with lower burden on the environment.” *Id.* at 41.

103. See John Deere, Supplier Management, Supply Chain Environmental Responsibility, [http://www.deere.com/en\\_US/compinfo/envtsafety/supplier/index.html](http://www.deere.com/en_US/compinfo/envtsafety/supplier/index.html) (last visited Feb. 15, 2007).

104. See ABB Group, ABB Annual Report 2005, Sustainability Review 24 (2006), available at <http://www.abb.com/cawp/abbzh252/8497236f7a6b2268c125713f003d8d1e.aspx>.

105. See MAN Group, 2005–06 Sustainability Report 71 (2006), available at [http://www.man.de/fileadmin/Downloads/Sonstiges\\_en/40507\\_MAN\\_Nachhaltigkeit\\_en.pdf](http://www.man.de/fileadmin/Downloads/Sonstiges_en/40507_MAN_Nachhaltigkeit_en.pdf).

ISO 14001 certification or an equivalent by 2008.<sup>106</sup> Illinois Tool Works requires environmental compliance of its suppliers.<sup>107</sup>

As mentioned above, three of the ten firms in this sector do not state whether they impose environmental standards on their suppliers. The three are Caterpillar, CNH Global, and Parker Hannifin. These three are ranked second, ninth, and tenth, respectively, in sales among the top ten firms in the sector.

#### b. Material Agreements

Although no publicly accessible database exists for material supply agreements entered into by firms that are not publicly traded in the United States,<sup>108</sup> publicly held firms in the United States are required to file copies of material agreements with the SEC, and the SEC makes them available in an electronic database. An analysis of the supply, acquisition, and credit agreements filed with the SEC during the fourth quarter of 2001 identified a smaller number of supply agreements (52) than acquisition (314) or credit agreements (514).<sup>109</sup> Publicly traded firms may file fewer supply agreements with the SEC because any one supply agreement is only occasionally likely to be material, and thus most supply agreements are not subject to SEC filing requirements. Of the supply agreements filed with the SEC during this period, 21 percent (11 of 52) included environmental provisions.<sup>110</sup>

These supply agreements include several types of environmental provisions of importance for the evaluation of supply-chain contracting as a means of private governance. Table 1 indicates the frequencies of several provisions: (1) environmental performance (a requirement to meet an environmental standard even if not required by host country environmental laws); (2) law compliance (a requirement to comply with host country environmental laws); and (3) a requirement to adopt an EMS. In addition to the categories

106. See Komatsu, Environmental & Social Report 2005, at 7, 9, 26, 33 (2005), available at [http://www.komatsu.com/CompanyInfo/csr/2005/2005\\_e.pdf](http://www.komatsu.com/CompanyInfo/csr/2005/2005_e.pdf).

107. See Illinois Tool Works, Inc., Statement of Principles of Conduct for Suppliers, princ. 6, [http://www.corporate-ir.net/ireye/ir\\_site.zhtml?ticker=ITW&script=11964&item\\_id='ITW\\_SPCS.htm'](http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=ITW&script=11964&item_id='ITW_SPCS.htm') (last visited Feb. 15, 2007).

108. See Vandenberg, *supra* note 42, at 2045 (citing 17 C.F.R. § 229.601 (2004)).

109. The supply agreement data were assembled from the results of a search of the LexisNexis EDGARPlus Exhibits database "description" search field using all caps and terms "supply agreement" and "supply contract" for agreements filed in the fourth quarter (October, November, and December) of 2001. An agreement was characterized as a supply agreement if it involved the sale of goods as defined in U.C.C. § 2-103(k) (2004), which defines "goods" as personal tangible property, but not intangible property or real property.

110. Results of evaluation of the fourth quarter 2001 supply agreements identified in note 109, using full text search with the terms "&hazard! Or environment! Or toxic! Or chemical Or waste."



identified in Table 1, many of these agreements included other environmental provisions: Examples include provisions for indemnification, private dispute resolution, postclosing monitoring rights, and reporting environmental matters to the other contracting party.

TABLE 1				
	Agreements With Environmental Provisions	Environmental Performance Requirement	Law Compliance Requirement	Environmental Management System Requirement
Total	11	2	7	1

Although the most common provision (found in seven of the eleven agreements with environmental provisions) is a requirement that the seller comply with environmental laws, in two of these seven agreements the buyer also agreed to comply. Two of these supply agreements required a party to achieve a level of environmental performance that exceeded compliance with the law, and one required the adoption of an EMS.

These material supply agreements are only required to be filed by U.S. publicly traded firms, but 52 percent (27 of 52) of all the supply agreements filed and 45 percent (5 of 11) of the agreements with environmental provisions involved cross-border transactions. In each of the five cross-border agreements with environmental terms, a European or Japanese firm was the buyer. In three of the five, the buyer required the seller to comply with environmental requirements. Although none of the agreements identified in the study included an importing firm in a developed country imposing environmental requirements on a firm in a developing country, the analysis provides additional support for the existence of global environmental supply-chain contracting.

## 2. Acquisition and Credit Agreements

The potential influence of the global market for corporate transactions on firms in exporting countries is huge. In any given year, many firms purchase all or part of the assets of other firms located solely in other countries or with operations in other countries. In 2001, the total value of cross-border corporate mergers and acquisitions was \$594 billion.<sup>111</sup> The global credit market also has the potential for similar influence. For example, according to a recent report, the

111. See Nuchhi R. Currier, *World Investment Report 2002: Transnational Corporations and Export Competitiveness*, UN CHRON. ONLINE EDITION 1 (2002), [http://www.un.org/Pubs/chronicle/2003/webArticles/031803\\_wir.html](http://www.un.org/Pubs/chronicle/2003/webArticles/031803_wir.html).

total value of global project finance lending, which only comprises a part of the global credit market, is \$170 billion.<sup>112</sup>

Although no comprehensive assessment has been conducted of the environmental provisions in acquisition and credit agreements involving firms in developed and developing countries, an assessment of the contracts with environmental provisions in the United States provides one indication of what may be occurring on the global level. As discussed above, the SEC requires publicly traded firms to file material agreements, and it makes those agreements publicly available in an electronic database. A recent assessment concluded that more than 70 percent of the acquisition and credit agreements filed in the fourth quarter of 2001 with the SEC have environmental terms.<sup>113</sup> Table 2 demonstrates the frequency of environmental provisions in these types of agreements.

TABLE 2			
Type of Agreement	Total	Agreements With Environmental Provisions	
Acquisition Agreement	314	227	72%
Credit Agreement	514	357	69%

Table 3 demonstrates the frequency of various types of environmental provisions in these agreements. In addition to the three categories identified in Table 3, many of these agreements included other environmental provisions, such as representations and warranties, indemnities, and provisions for postclosing monitoring.<sup>114</sup>

112. See Editorial, *Managing Globalization*, WASH. POST, Feb. 19, 2006, at B6.

113. See Vandenberg, *supra* note 42, at 2045–46, 2051–52, 2056 (the assessment also concluded that more than 80 percent of the commercial real estate lease agreements in the United States have environmental provisions, but it is unclear whether commercial real estate lease agreements are entered into in connection with the types of cross-border transactions that are the principal focus of this Article).

114. Of the acquisition agreements with environmental terms, 96 percent had environmental representations and warranties, 60 percent had environmental indemnity provisions, and 3 percent had environmental postclosing monitoring provisions. Of the credit agreements with environmental terms, 90 percent had environmental representations and warranties, 88 percent had environmental indemnity provisions, and 60 percent had environmental postclosing monitoring provisions. For a discussion of the market incentives that these terms reflect and the likely effects of these terms on firm behavior, see Vandenberg, *supra* note 42, at 2041–58.

TABLE 3			
Type of Agreement	Environmental Performance Requirement	Law Compliance Requirement	Environmental Management System Requirement
Acquisition Agreement	1%	2%	0%
Credit Agreement	15%	88%	2%

The thrust of some of these provisions is to enable one party to shift the costs of legal liability arising from environmental matters (for example, indemnities). In addition, the agreements often have provisions that address information asymmetries between the parties, such as representations and warranties, and provisions for postclosing monitoring.<sup>115</sup> Many provisions have the effect of reducing the underlying environmental harms arising from the subject matter of the contract.<sup>116</sup> For example, in the credit market, lenders may have incentives to require higher levels of regulatory compliance by borrowers than the borrowers would adopt on their own. The credit agreements with environmental terms reflect this market incentive, with 88 percent requiring law compliance by the borrower and 15 percent requiring environmental performance surpassing legal requirements. Many of these credit agreements also not only create a private contractual right in the bank to enforce regulatory compliance or overcompliance, but they also often enable the lender to monitor the borrower to ensure desired levels of compliance during the term of the credit agreement.<sup>117</sup>

In the market for corporate assets, firms use mergers and acquisitions to realize comparative advantages in regulatory compliance. The market for corporate assets thus creates a “market leverage” effect that may increase levels of regulatory compliance and reduce regulatory costs.<sup>118</sup> The acquisition agreements both reflect and facilitate the market leverage effect through the types of terms discussed above.

The applicability of these market incentives is less clear in transactions between firms in developed and developing countries.<sup>119</sup> For example, if a developing country has lax environmental standards or enforcement, and if differences in the cost of regulatory compliance drive competitive advantages,

115. See discussion *supra* note 114.

116. See Vandenberg, *supra* note 42, at 2047–51.

117. See *id.* at 2051–56.

118. See Johnston, *supra* note 22, at 6.

119. Although the study of acquisition and credit agreements only pertained to those agreements that were filed with the SEC, many of the agreements involved cross-border transactions.

then a firm or facility located in the developing country cannot be expected to gain a competitive advantage in the market for corporate assets based on lower-cost compliance with government regulation. The procompliance market leverage effects thus may not be operative if the relevant corporate assets are located in developing countries with lax regulatory standards or enforcement. Similarly, if traditional government regulation is driving lenders' imposition of environmental requirements on borrowers, and if a developing country has lax standards or enforcement, then lenders will have less incentive to monitor and enforce borrower law compliance. As a result, lenders can be expected to impose such standards less frequently when the loan concerns business activities in a developing country.

Of course, empirical studies suggest that much of the driving force for firm environmental behavior is not government regulation but other pressures that comprise the firm's "social license to operate," such as consumer, investor, or host community preferences for environmental quality.<sup>120</sup> If so, a form of market leverage effect can be expected to be in place in the market for corporate assets located in developing countries. Similarly, social license-based incentives for proenvironmental behavior may drive banks to impose standards on borrowers even in developing countries where regulations or enforcement may be lax.

The existence of these nongovernmental incentives for positive environmental behavior on the global level is suggested by the widespread adoption of the Equator Principles, which often apply to projects that are likely to receive only limited regulatory oversight by the developing countries in which many of the projects will be constructed.<sup>121</sup> The Equator Principles have been adopted by forty-one of the largest private banks, representing roughly \$125 billion or 74 percent of the \$170 billion in global project finance lending.<sup>122</sup>

### 3. Insurance Agreements

Insurance markets also have substantial potential to influence firm environmental behavior in global settings where the firm behavior may be beyond the effective reach of national and international environmental laws. Although an empirical analysis of the extent and influence of insurance contracting on

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120. See Neil Gunningham, Robert A. Kagan & Dorothy Thornton, *Social License and Environmental Protection: Why Businesses Go Beyond Compliance*, 29 LAW & SOC. INQUIRY 307, 308–10 (2004); Gunningham, Thornton & Kagan, *supra* note 22, at 300–07.

121. See sources cited *supra* note 7.

122. See Editorial, *supra* note 112, at B6.

the environmental behavior of firms is beyond the scope of this Article, there are indications that insurance contracting may have important effects.<sup>123</sup> For example, Ronald Mitchell examined the effects of insurance and other requirements on oil tanker discharges of ballast tanks, the largest—although not the most dramatic—source of oil pollution from ships.<sup>124</sup> Mitchell found that although firms largely failed to comply with an international treaty placing limits on ballast discharges, far higher levels of compliance were achieved under a requirement to adopt maritime oil pollution control technology. A factor in the higher compliance levels was the greater ability of classification societies and insurance companies to add the technology-based standards to existing private monitoring programs.<sup>125</sup> In the case of oil tanker discharges, insurance contracting served as a means of enforcing a public international law requirement. Insurers also may be important monitors and enforcers of contractual requirements that regulate firm environmental behaviors not subject to formal legal requirements. The role of global insurance contracting in influencing firm environmental behavior is an area that is ripe for additional research.

### III. PRIVATE CONTRACTING AS GLOBAL PRIVATE GOVERNANCE

On the surface, private standards fall outside the scope of what most would consider regulation or governance. The standards are adopted by private firms, and they are implemented through agreements between private firms. In some cases governmental entities may create incentives for firms to enter into these agreements, but governments are not parties, and in many

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123. See NEIL GUNNINGHAM & PETER GRABOSKY, SMART REGULATION: DESIGNING ENVIRONMENTAL POLICY 118–20 (1998); Paul K. Freeman & Howard Kunreuther, *The Roles of Insurance and Well-Specified Standards in Dealing With Environmental Risks*, 17 *MANAGERIAL & DECISION ECON.* 517, 529 (1996) (noting the “enormous incentives” that insurers create by monitoring the environmental compliance of insureds); Clifford G. Holderness, *Liability Insurers as Corporate Monitors*, 10 *INT’L REV. L. & ECON.* 115, 127 (1990) (“[T]he totality of the evidence supports a monitoring role for insurance companies.”).

124. See RONALD B. MITCHELL, INTERNATIONAL OIL POLLUTION AT SEA: ENVIRONMENTAL POLICY AND TREATY COMPLIANCE (1994); Ronald B. Mitchell, *Regime Design Matters: International Oil Pollution and Treaty Compliance*, 48 *INT’L ORG.* 425 (1994).

125. See MITCHELL, *supra* note 124, at 288; Mitchell, *supra* note 124, at 451 (“In place of the discharge subregime’s legal system of prosecution, conviction, and fines, the equipment subregime relied on quite different responses to noncompliance. The most immediate sanctions involved the ability of classification societies, insurers, and flag state governments to withhold the classification, insurance, and pollution prevention certificates that a tanker needed to conduct international trade. As John Foxwell puts it, ‘tankers “cannot get insurance without certification, and can’t get certification without compliance.”’ (citing personal interview with John Foxwell, Shell International Marine, in London (June 27, 1991))).

cases the incentives for firms to enter into these contracts arise in the absence of government pressure. This Part examines the case for treating private environmental contracting as a form of global private governance. Assuming the case can be made, the Part then examines the efficacy and accountability of this governance regime and compares it to alternative regimes.

#### A. Private Contracting as Governance

Governance is susceptible to many definitions. It might mean “public.”<sup>126</sup> Although scholars have debated the public-private divide at length and have included many activities within the public rubric, contracting between for-profit firms is well outside most conceptions of public activities.<sup>127</sup> If governance requires participation by a governmental entity, private environmental contracting is not a form of governance.

Similarly, governance might be defined to require some form of democratic accountability to the electorate within a particular sovereign territory. That accountability does not exist with private environmental contracting since firms are not controlled by publicly elected officials. Nevertheless, as the discussion below acknowledges, a form of accountability does exist when individuals acting as consumers express preferences (either directly or through NGO-led boycotts or public information campaigns) that they might otherwise express as citizens in the ballot box.<sup>128</sup>

Governance also might mean “collective” or “collaborative.” If governance “generally relates to group decision-making to address shared problems,”<sup>129</sup> the development and implementation of private collective standards such

126. The term “public” here might be defined to require the exercise of governmental powers or participation by a governmental entity. See, e.g., Frank I. Michelman, *States’ Rights and States’ Roles: Permutations of “Sovereignty”* in *National League of Cities v. Usury*, 86 YALE L.J. 1165, 1167 (1977) (drawing a distinction between “governmental [and] nongovernmental powers and forms of organization”).

127. See Vandenberg, *supra* note 42, at 2041 n.54 (noting the substantial quantity of academic literature on the public-private distinction). Terry Macdonald and Kate Macdonald argue that corporate actors that wield power over individuals’ autonomy and equality are exercising public power. Terry Macdonald & Kate Macdonald, *Non-Electoral Accountability in Global Politics: Strengthening Democratic Control Within the Global Garment Industry*, 17 EUR. J. INT’L L. 89, 93 (2006) (noting that “democratic principles create an imperative for instituting democratic control of any agents of power (state or non-state) that affect a population of individuals to a degree that potentially jeopardizes their democratic entitlements [of autonomy and equality].”). Macdonald and Macdonald argue that NGOs and MNCs “now engage, alongside states, in some important forms of public decision-making that impact upon populations in ways that implicate the protection of individuals’ democratic entitlements to autonomy and equality.” *Id.* at 94.

128. See Macdonald & Macdonald, *supra* note 127, at 99–100.

129. Esty, *supra* note 2, at 1497.

as FSC-certification requirements arguably may constitute governance.<sup>130</sup> Increasingly, scholars have recognized the multiplicity of collective or collaborative arrangements that regulate private and firm behavior.<sup>131</sup> Under the collective or collaborative conception of governance, private contracting to implement collective standards may qualify as governance, but contracting that is the product of unilateral private standard setting and implementation lacks the collective or collaborative component. Thus, if governance requires collective or collaborative action, only some of private contracting qualifies as governance.

Yet if governance also relates to whether the purposes or functions of the activity are of the type generally assigned to government, even private environmental contracting that is the product of unilateral standard setting may qualify.<sup>132</sup> Private environmental contracting serves typically governmental purposes (attainment of improved environmental conditions) and plays typically governmental functions (constraining the environmentally harmful behavior of firms).<sup>133</sup> In addition, private environmental contracting has important effects on government: In some cases it may serve as an interim form of private control pending government regulation, and in others it may delay or displace government regulation altogether.<sup>134</sup> From each of these perspectives, private contracting has the attributes of a governance regime.<sup>135</sup>

Given these governance attributes, it is entirely defensible and perhaps necessary to ask the questions typically asked of other forms of governance: (1) Will

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130. See Kingsbury et al., *supra* note 8, at 23.

131. See, e.g., Karkkainen, *supra* note 2.

132. See Macdonald & Macdonald, *supra* note 127, at 100 (noting that “[t]he legitimacy conferred by democratic institutions is derived from their capacity to achieve democratic purposes and perform democratic functions”) (emphasis in original).

133. Cf. *id.* Although environmental contracting can be viewed exclusively as a market phenomenon, see Johnston, *supra* note 22, viewing environmental contracting exclusively through an economic lens risks overlooking its implications for values that are typically excluded from economic analysis, such as intra- and intergenerational equity, see Macdonald & Macdonald, *supra* note 127, at 94.

134. For an analysis of private standard setting as a gap-filling measure regarding nanotechnologies, see Linda K. Breggin & Leslie Carothers, *Governing Uncertainty: The Nanotechnology Environmental, Health, and Safety Challenge*, 31 COLUM. J. ENVTL. L. 285 (2006).

135. Wal-Mart describes its environmental sustainability program as “democratizing sustainability.” Little, *supra* note 10, at 10. A contrast between public governance and private environmental contracting on the global level is the extent to which preferences for traditionally governmental outcomes are conveyed more directly by the latter. The public global governance process requires the principals (assumed here to be the citizens of the importing country) to influence the behavior of a host of agents (NGOs, the government of the importing country, an international standard-setting body, the exporting government, and the exporting firm). In contrast, private environmental contracting can be viewed as a more direct form of governance: Citizens convey preferences for goods and services directly (in many cases with NGOs serving as instigators or intermediaries) to private firms through the marketplace, which then use supply-chain and other environmental contracting to induce behavior changes in the exporting firm.

environmental contracting be effective in achieving a desired social goal; and (2) to whom and how should the parties that engage in environmental contracting be held accountable? In addition, recognizing private contracting as a form of governance also facilitates comparisons with alternative institutional arrangements, including traditional public governance, public-private governance, and markets without private environmental contracting.<sup>136</sup> In the case of private environmental contracting, the comparative analysis is simplified by the limited viable public and public-private alternatives.<sup>137</sup> The analysis below begins with an examination of the efficacy and accountability of private environmental contracting and then turns to the comparative analysis.

## B. Efficacy

For purposes of this analysis, I assume that the efficacy of environmental private governance agreements can be judged by whether they induce reductions in the environmental harms arising from the products or services that are the subject of the agreements. Whether a reduction in environmental harms is the appropriate objective, and who should determine the objective, are contestable points that I defer to the accountability discussion below. To be effective, the private governance agreements must meet several conditions: (1) widespread adoption in the form of incorporation into procurement policies or into terms in procurement contracts; (2) standards that have content adequate to achieve environmental protection objectives; and (3) adequate implementation of the standards by suppliers.

### 1. Standard Adoption

#### a. Extent of Standard Adoption

The data presented above suggest that environmental procurement standards have been adopted by a large number of firms in sectors whose suppliers have the potential to create enormous environmental damage. Firms in seven of the eight sectors studied impose environmental requirements on their suppliers. Of the seventy-four firms included in the study across all eight sectors, 53 percent impose environmental supply-chain requirements.

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136. See NEIL K. KOMESAR, *IMPERFECT ALTERNATIVES: CHOOSING INSTITUTIONS IN LAW, ECONOMICS, AND PUBLIC POLICY* 163–77 (1994).

137. As Errol Meidinger has noted in connection with forestry practices, the “Westphalian system has been utterly incapable” of providing an adequate response to the sustainability challenges arising from international trade. Meidinger, *supra* note 17, at 317.



The extent of supply-chain contracting is even more impressive when examined from the perspective of total sales. Of the \$2.8 trillion in total sales represented by the seventy-four firms in the study, firms that impose environmental supply-chain requirements account for \$2.2 trillion, or more than 78 percent of the total. In short, environmental supply-chain contracting is remarkably widespread among the firms in the sectors studied. Although the firms in this study do not necessarily impose environmental requirements on all of their suppliers or on all goods supplied, the magnitude of the environmental supply-chain contracting identified by the study suggests the potential for substantial impact on the environmental behavior of hundreds of thousands of suppliers around the world.<sup>138</sup>

In turn, there is reason to believe that this private environmental contracting extends private standards to a meaningful swath of several threatened environmental resources. As discussed above, a substantial amount of commerce is conducted pursuant to private environmental contracts, and private standards exist for a variety of important natural resources potentially affected by that commerce. For example, roughly 7 percent of the world's forests are covered by some type of certification program.<sup>139</sup> Similarly, thirty-six of the world's fisheries are covered by MSC certification or are under assessment for such certification.<sup>140</sup>

Although the breadth of the sectors with firms that have adopted environmental supply-chain contracting requirements is impressive, the depth of the requirements is less impressive: There is little indication that many of the requirements penetrate beyond first-tier suppliers.<sup>141</sup> Collectively set standards typically do not require imposition on second- or third-tier suppliers for certification.<sup>142</sup> In addition, although some firms recommend that their first-tier suppliers require second-tier suppliers to abide by environmental requirements, it is unclear whether any firm has required second- or

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138. See discussion *supra* text accompanying notes 45–47 (noting that Wal-Mart alone has over 60,000 suppliers). The sectors evaluated in this study were not selected at random (although the number of firms with environmental supply-chain requirements was unknown at the time sectors were selected), and no claim is made regarding the representativeness of the sample. As a result, additional empirical studies will be necessary to determine the extent to which the firms in these eight sectors are representative of the broader set of all firms that participate in global trade. Even in the unlikely event that no other firms are involved in environmental supply-chain contracting, however, the potential effects of the supply-chain contracting identified by this study alone are substantial.

139. See Meidinger, *supra* note 5, at 77. Although consumer demand is limited, particularly when price is affected, NGOs have been able to “pose risks to markets in Europe and North America, and to leverage brand values to this end.” *Id.*

140. See *supra* text accompanying notes 28–29.

141. See, e.g., Ford Motor Company, *supra* note 76 (noting that the Ford environmental requirement is applicable to first-tier suppliers but only “encourage[d]” for second-tier suppliers).

142. See, e.g., Prakash & Potoski, *Racing to the Bottom*, *supra* note 4, at 351–52.

third-tier supplier compliance.<sup>143</sup> To the extent environmental damage arises from second- or third-tier suppliers, many of the standards adopted to date will have little or no impact. This limitation is potentially profound. For example, China is expected to extract \$100 billion in natural resources from South America over the next decade, in large part to support its production of consumer products for developed countries.<sup>144</sup>

In addition, Errol Meidinger has noted that the FSC forestry standards are more frequently adopted by suppliers in developed as opposed to developing countries, suggesting that the forestry standards may not be affecting many of the most vulnerable forests. It is unclear whether this developed/developing country dichotomy also exists for other types of standards and supply chains in other business sectors, although there are several indications that environmental supply-chain contracting is occurring with exporting firms in developing countries. For example, a recent study by Aseem Prakash and Matthew Potoski identified a large and growing number of firms that are ISO 14001 certified, including firms in developing countries, and concluded that exporting countries with trading partners that have high levels of ISO-certified firms also have high levels of ISO 14001 certified firms themselves.<sup>145</sup> The pattern of ISO 14001 adoption by these firms thus is consistent with the expected effects of environmental supply-chain contracting. Similarly, a study of business managers in China suggests that environmental supply-chain contracting may be occurring with many Chinese suppliers.<sup>146</sup> Given the pattern observed with the FSC standards, however, further work remains to be done on the extent to which environmental supply-chain contracting extends to exporters in developing countries.

#### b. Incentives for Standard Adoption

The data also provide insights into firms' incentives to impose environmental requirements on suppliers. The concept of a social license to operate suggests that firms face not only pure legal and economic incentives to behave in a particular way, but also incentives to engender a favorable view of the firm and favorable treatment by customers, shareholders, employees, and the communities

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143. See, e.g., Ford Motor Company, *supra* note 76 (recommending that first-tier suppliers impose requirements on second-tier suppliers).

144. See Friedman, *supra* note 9, at A23.

145. Prakash & Potoski, *Racing to the Bottom*, *supra* note 4, at 354, 357; see also Clapp, *supra* note 4, at 301 (concluding that supply-chain contracting is affecting ISO 14001 adoption in developing countries).

146. See Petra Christmann & Glen Taylor, *Globalization and the Environment: Determinants of Firm Self-Regulation in China*, 32 J. INT'L BUS. STUD. 439, 452-53 (2001).

in which they operate.<sup>147</sup> In the absence of a favorable view of the firm among this broad group of stakeholders, the firm may be subject to a variety of negative effects, including new regulatory requirements, obstacles to obtaining permits or zoning changes, reduced sales, investors who refuse to buy its shares, reduced employee morale, and community opposition ranging from protests to tort litigation. Although this study does not provide a basis for quantitative analysis of firm incentives, the data presented above are consistent with the concept of a social license to operate. Several patterns emerge that provide intriguing indications of the complex mix of social, economic, and legal influences that affect adoption of environmental supply-chain contracting requirements.

At the outset, consumer pressure, whether created by or merely expressed by NGOs, appears to be an important incentive for firms to adopt supply-chain environmental requirements. It is not possible to evaluate fully which firms were targeted by NGOs, but many of the firms examined in the study adopted environmental contracting requirements after NGO public information campaigns or boycotts. Prominent examples of such firms include Wal-Mart, Home Depot, and Staples. Similarly, NGOs targeted many of the banks that ultimately adopted the Equator Principles.

Another possible indication of the role of consumer pressure is that the larger firms in each sector appear to be more likely than the smaller firms to impose environmental requirements. In fact, the largest firm in seven of the eight sectors studied has adopted some form of environmental supply-chain requirements. In most sectors, the largest firms also have been the ones targeted by NGOs. Interestingly, although standard adoption is more uneven among smaller firms, it appears to occur even in the absence of intense NGO pressure. In some cases, smaller firms appear to follow the lead of larger firms. For example, Wal-Mart's adoption of environmental supply-chain contracting appears to have induced other firms in its sector to follow suit.<sup>148</sup> Similarly, although Home Depot adopted its environmental supply-chain requirements only after hundreds of protests by environmental groups, after Home Depot adopted its requirements, allegedly only two phone calls were required to induce its next largest competitor, Lowe's, to follow suit.<sup>149</sup>

Another indication of the role of consumer pressure is that many of the firms in the five sectors that rely on retail sales, including the firms in the retail and mixed retail and industrial sectors, impose environmental requirements

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147. See Gunningham, Thornton & Kagan, *supra* note 22, at 301–07.

148. For example, following Wal-Mart's announcement regarding its MSC requirement for wild-caught fish, two grocery chains in the United Kingdom—Waitrose and Marks & Spencer—also unveiled sustainable procurement policies for fish. See Crockett, *supra* note 52, at 16–17.

149. See Meidinger, *supra* note 5, at 58.

on suppliers. Fifty percent of the firms in these five sectors impose environmental supply-chain requirements, and these firms account for 78 percent of the sales among the top ten firms in their sectors. In addition, the industrial sector with the highest percentage of environmental supply-chain requirements by sales (85 percent), lumber and wood production, is also a sector that has high visibility with consumers and that has been the subject of intense NGO pressure.<sup>150</sup>

At the same time, the consumer incentives explanation is far from complete.<sup>151</sup> Although one might expect retail firms and mixed retail and industrial firms to be more vulnerable to consumer pressure and therefore to be more likely to impose environmental requirements on suppliers than industrial firms, the pattern is unclear. For example, although none of the firms in the aluminum production sector state that they impose environmental requirements on suppliers, seven of the top ten firms in the industrial machinery and equipment manufacturing sector (accounting for 73 percent of sales) impose these requirements. In terms of total sales, 72 percent of the total sales in the three retail sectors are by firms that have established environmental supply-chain requirements, as opposed to 81 percent by the firms in the two mixed retail and industrials sectors, and 64 percent by the firms in the three industrial sectors. In short, environmental supply-chain contracting is surprisingly common among industrial firms if consumer pressure is the only important influence on firms.

Other factors that comprise the social license to operate also may be influential.<sup>152</sup> Socially responsible investment (SRI) firms may be pressuring firms in all sectors, although if SRI firm pressure is an important influence, it is unclear why standard adoption is more common among large firms than small firms.<sup>153</sup> The social and personal norms of firm managers and other employees also may affect adoption of environmental supply-chain requirements.<sup>154</sup> These norms may influence decisionmaking directly—for example, a chief

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150. See *id.* at 57–58.

151. Compliance with current legal requirements is a limited incentive for most environmental supply-chain contracting given that government regulatory requirements and tort liability typically only extend to a firm's suppliers or other contractors under limited circumstances. As to the overall adoption of environmental requirements, 40 percent (twelve of thirty) of the firms in the three retail sectors have adopted environmental supply-chain contracting requirements, as compared to 70 percent (thirteen of twenty) of the firms in the two mixed retail and industrials sectors, and 56 percent (fourteen of twenty-five) of the firms in the three industrial sectors. See *infra* Tables 4, 5, and 6.

152. The NGO public relations campaigns and consumer boycotts may not only affect sales to consumers, but also may affect employee morale, socially responsible investment firm decisions, and corporate firm concerns about regulations, permits, zoning approvals and other actions by federal, state, or local governments.

153. For an analysis of the effects of socially responsible investment (SRI) firms on corporate environmental behavior, see Johnston, *supra* note 22. Although NGOs may target only the very largest firms in each sector, it is unlikely that SRI firms do not screen all of the ten largest firms in many sectors.

154. See Vandenberg, *supra* note 10, at 76–78.

executive officer may feel a sense of obligation to reduce the environmental harms caused by the firm and its suppliers—or they may induce a firm to act to avoid the pecuniary costs of adverse effects on employee morale. Again, however, if employee norms and morale are important influences, the relationship with firm size is unclear.

The desire to avoid future government regulation may be consistent with the observed pattern of NGO protests (which may heighten perceived risks of government regulation) and with the adoption of environmental supply-chain contracting by large as opposed to small firms.<sup>155</sup> Yet the desire to avoid future government regulation also falls short as a complete explanation. Many of the importing firms that have adopted environmental supply-chain requirements have adopted requirements, such as law compliance by suppliers in developing countries, that are unlikely to have a meaningful effect on the future regulatory landscape in the developed countries in which the importing firms operate. Similarly, many firms that have imposed environmental supply-chain requirements have done so regarding subjects that are unlikely to be the subject of government regulation in the foreseeable future.<sup>156</sup>

Two pure economic incentives are consistent with the prevalence of large firm adoption of environmental supply-chain requirements. The first is the incentive to assure investors of the supply of raw materials. Large firms may have a sufficiently large demand for raw materials or other goods such that their demand can threaten the long-term availability of some natural resources. As a result, large firms may have incentives to induce suppliers to engage in more environmentally sound practices to assure investors that supplies are sustainable. Wal-Mart confronted this concern regarding the long-term supply of wild-caught fish before deciding to require MSC certification for its North American retail outlets.<sup>157</sup> Asian pulp and paper firms also have confronted these issues regarding whether they have adequate supplies of pulp wood over the time horizons of interest to their investors.<sup>158</sup>

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155. See Vandenberg, *supra* note 42, at 2066.

156. Examples include requirements by Wal-Mart and other grocers for MSC-certified fish, and the adoption of the Equator Principles by project finance lenders.

157. See Marc Gunther, *Saving Seafood*, CNNMONEY.COM, July 31, 2006, [http://money.cnn.com/2006/07/25/news/companies/pluggedin\\_gunther\\_fish.fortune/index.htm](http://money.cnn.com/2006/07/25/news/companies/pluggedin_gunther_fish.fortune/index.htm) (noting that “Wal-Mart intends to grow, and to sell fish for a long time, and it needs a reliable supply”).

158. See *The Paper Industry: Trouble at Mill*, ECONOMIST, May 20, 2006, at 64 (noting that the author of a report by the Center for International Forestry Research concluded that “disregard for the sustainability of wood supplies and changing attitudes to logging, has exposed investors to considerable financial risk” and that two large Indonesian pulp-mill companies “are still years away from planting enough trees to operate sustainably”).

The second economic incentive that is consistent with large firm adoption of environmental supply-chain contracting requirements is the incentive to raise rivals' costs. Large firms may buy sufficiently large quantities of goods that suppliers invest in expensive infrastructure (for example, fishing nets designed to avoid by-catch or to generate sustainable yields) to be in a position to sell to the large firms. To cover these investments, the suppliers then may raise the prices of their goods not only to buyers with environmental supply-chain requirements, but to all buyers. By increasing the price of goods to all buyers, the large firm may reduce the competitive disadvantage it would otherwise face by insisting on more expensive environmental performance by its suppliers.

In sum, although the mix of social, economic, and legal influences is complex, the incentives are sufficient for a surprisingly large number of firms to impose environmental contracting requirements on their suppliers. This new Wal-Mart effect already includes firms with over \$2 trillion in aggregate global sales and tens of thousands of suppliers. The following Subparts examine the content and implementation of these environmental contracting requirements.

## 2. Standard Content

After standard adoption, the next critical issue is whether the content of the standards being adopted is sufficient—assuming adequate implementation—to achieve meaningful improvements in environmental conditions. The environmental standards adopted by the firms discussed above can be grouped into three types in terms of their prospects for improving the environmental behavior of suppliers: (1) environmental performance requirements that are independent of or exceed the legal requirements imposed by the exporting firm's host country (for example, FSC wood certification, MSC fish certification, or prohibitions on the use of hazardous materials that are not banned in the host country); (2) requirements to comply with the laws of the host country; and (3) adoption of EMS standards that do not include specific environmental performance standards (such as ISO 14001).

Table 4 sets forth the types of standards adopted by the firms in the three retail sectors discussed above in Part II.C.1.a. Table 4 only lists those firms that have imposed some type of environmental requirement on suppliers.<sup>159</sup>

TABLE 4			
	Environmental Performance	Law Compliance	Environmental Management System
Sector/Firm			
<b>Discount and Variety Retail</b>			
Wal-Mart (1)	X	X	
Costco (3)		X	
Target (4)		X	
Albertsons (6)		X	
Ahold USA (8)	X		
<b>Home Improvement and Hardware Retail</b>			
Home Depot (1)	X	X	
Lowe's (2)	X		
Wolseley (3)		X	
Stock Building Supply (7)	X		
<b>Office Products Retail and Distribution</b>			
Staples (1)	X		
Office Depot (2)	X		

159. See *supra* text accompanying notes 45–68. The number in parentheses following each firm name is the firm's rank in sales within its sector. The language regarding the requirements that Wolseley and Stock Building Supply impose on suppliers is ambiguous but was interpreted to take the form of environmental performance requirements.

Table 5 sets forth the types of standards adopted by the firms in the two sectors that combine retail and manufacturing. As with Table 4, Table 5 only lists those firms that have imposed some type of environmental requirement on suppliers.<sup>160</sup>

TABLE 5			
	Environmental Performance	Law Compliance	Environmental Management System
Sector/Firm			
<b>Automobile Manufacturing</b>			
General Motors (1)		X	X
DaimlerChrysler (2)		X	
Toyota (3)	X		X
Ford (4)			X
Nissan (6)	X		X
Fiat (9)			X
Renault (10)			X
<b>Personal Computers</b>			
Hewlett-Packard (1)	X	X	
Sony (2)	X	X	X
Dell (3)	X	X	
Toshiba (4)	X	X	X
NEC (5)	X	X	
Apple (6)	X	X	
Acer (7)	X		X

Table 6 sets forth the types of standards adopted by the firms in the three industrial sectors. As with Tables 4 and 5, Table 6 only lists those firms that have imposed some type of environmental requirement on suppliers.<sup>161</sup>

160. See *supra* text accompanying notes 71–90. Renault will begin applying its requirement in 2007 and was included in Table 5.

161. See *supra* text accompanying notes 94–107. The language regarding the requirements that United Technologies and Mitsubishi Heavy Industries impose on suppliers is ambiguous but was interpreted to take the form of environmental law compliance requirements.



TABLE 6			
	Environmental Performance	Law Compliance	Environmental Management System
Sector/Firm			
<b>Lumber and Wood Production</b>			
International Paper (1)	X	X	
Weyerhaeuser (2)	X	X	
Georgia-Pacific (3)	X	X	
MeadWestvaco (5)	X		
Bowater (6)	X	X	
Louisiana-Pacific (7)	X	X	
Potlatch (9)	X	X	
<b>Aluminum Production</b>			
None			
<b>Industrial Machinery and Equipment Manufacturing</b>			
United Technologies (1)		X	
Mitsubishi Heavy Industries (3)	X		
John Deere (4)		X	
ABB (5)			X
MAN Group (6)		X	X
Komatsu (7)			X
Illinois Tool Works (8)		X	

Tables 4, 5, and 6 demonstrate that a limited number of firms have imposed environmental performance standards on their suppliers. Environmental performance standards have the prospect of enabling supply-chain contracting to achieve environmental benefits even where the exporting country standards are lax. Adoption of the MSC standards for wild-caught fish by Wal-Mart and the FSC standards for lumber by Home Depot are two examples. Similarly, Hewlett-Packard requires "safe handling, movement, storage, recycling or reuse and disposal" of chemicals and appears to apply this

requirement even if the host country does not require safe handling.<sup>162</sup> At the same time, environmental performance standards may be too general to result in meaningful environmental improvements. For example, it is unclear how Hewlett-Packard or its suppliers act in response to the requirement for “safe” handling.<sup>163</sup>

Many firms require only compliance with the laws of the host country.<sup>164</sup> These requirements are likely to lead to meaningful improvements in environmental protection if the host country has adequate but underenforced environmental regulations and if the importing firm monitors and enforces the supplier’s regulatory compliance. If the regulations are inadequate, compliance with them may make little difference.<sup>165</sup> Similarly, although in theory the importing firm can enforce a law compliance provision directly, it is much easier to evaluate whether government enforcement actions have been taken than to monitor actual compliance. As a result, even if a country has adequate standards, if its enforcement is lax an importing firm may have difficulty assessing its supplier’s law compliance.<sup>166</sup>

Some firms have required that their suppliers adopt an EMS, rather than requiring that they meet environmental performance or law compliance standards. Many EMSs require rigorous systems for the management of environmental matters, and these systems may result in reductions in the environmental harms arising from a firm’s operations.<sup>167</sup> At the same time, EMSs generally do not require reductions in a firm’s total environmental emissions or harms. For example, ISO 14001 requires firms to set environmental goals for their operations and to make continual improvements, but a firm may comply with the ISO 14001 requirements by setting its goals at very low levels and by

162. See Hewlett-Packard, *supra* note 86, at 6.

163. See *id.* In other situations, firms have announced standards with nonprescriptive language or with sufficient vagueness that it is unclear whether they require supplier behavior change. See Staples, *supra* note 67; Staples, Staples Soul—Environmentally Preferable Products, <http://www.staples.com/sbd/content/about/soul/environmentallypreferableproducts.html> (last visited Feb. 27, 2007).

164. See DaimlerChrysler, *supra* note 75.

165. See Ruth W. Grant & Robert O. Keohane, *Accountability and Abuses of Power in World Politics*, 99 AM. POL. SCI. REV. 29, 35 (2005) (noting that Nike had not necessarily broken any laws in the labor practices that were heavily criticized in the 1990s).

166. This may explain in part why FSC certification is much more common in developed than developing countries. See Meidinger, *supra* note 5, at 78. Perhaps as a result, Meidinger has concluded that certification programs are not a “silver bullet,” especially for developing countries. *Id.*

167. See, e.g., Potoski & Prakash, *supra* note 33, at 246–47 (concluding that adoption of the ISO 14001 environmental management standard improves firm environmental compliance); Toffel, *supra* note 33 (finding evidence that ISO 14001 elicits improvements in regulatory compliance and environmental performance). But see Murray, *supra* note 33, at 49–50.

making only minimal improvements.<sup>168</sup> Perhaps even more important, if firms set their environmental goals in the form of reductions in environmental emissions per unit of production rather than reductions in total emissions, they can meet their environmental goals in periods of increased production yet have greater total emissions.

The standards thus vary greatly in the extent to which they are likely to generate improvements in the environmental behavior of suppliers. Twenty-four of the seventy-four firms in the study have adopted environmental performance standards, which hold out the prospect of environmental improvements even if the exporting countries' laws are lax. Twenty-two firms require law compliance, which may lead to environmental improvements if public laws are adequate and if private enforcement supplements public enforcement. If the underlying standards or private enforcement are lax, however, the improvements may be negligible. Finally, twelve firms impose EMS requirements. The effect of EMS requirements on firm environmental behavior is unclear.<sup>169</sup>

### 3. Standard Implementation

The effect of environmental supply-chain requirements on firm behavior is a function not only of the standards adopted, but also of whether they are implemented. Although no systematic study has been conducted of the extent to which suppliers have implemented environmental supply-chain requirements, there are a number of indications of the implementation status in several sectors. As to environmental performance requirements, Meidinger concluded that the forest certification programs are "having some effect on forestry practices" and are having some effect on forest policy more generally.<sup>170</sup> The MSC certification program has extended to nineteen fisheries and may extend to dozens more in the near future, although the effect of MSC certification on the sustainable production of fish has yet to be demonstrated. As to law compliance requirements, Petra Christmann and Glenn Taylor found an association between those Chinese firms that have a large proportion of exports and environmental law compliance. They also found an association between firms that have a large proportion of exports to developed countries and environmental law compliance.<sup>171</sup>

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168. See Clapp, *supra* note 4, at 309 (noting that this advice was given by a Western consultant at a seminar for Asian firms).

169. See *supra* note 167.

170. Meidinger, *supra* note 5, at 77.

171. Christmann & Taylor, *supra* note 146, at 450–52.

As to supplier requirements for the adoption of environmental management systems, Prakash and Potoski, in the study discussed above, concluded that countries whose firms trade with countries that have higher levels of ISO 14001 certification also have higher levels of certification.<sup>172</sup> In short, firms in importing countries appear to be inducing ISO 14001 adoption by firms in exporting countries. Anecdotal information also suggests that suppliers respond to buyer EMS requirements. For example, Ford Motor Company has stated that in response to its ISO 14001 certification requirements, “[b]y mid-2005, 99.5% of Q1 production suppliers had ISO 14001 certification.”<sup>173</sup> Similarly, Nissan recently reported 95 percent ISO 14001 adoption among its suppliers.<sup>174</sup> Of course, for EMS requirements to improve environmental conditions, the EMSs themselves must lead to better environmental performance. As discussed above, it is unclear at this point whether adoption of EMSs actually leads to improved environmental performance.

In the final analysis, for supply-chain contracting to function as an important part of the global environmental governance regime, a broad and deep number of firms must implement standards that will make meaningful improvements in their suppliers’ environmental performance. The data discussed above suggest that environmental supply-chain contracting is becoming remarkably widespread. At the same time, the extent of the standard adoption, the content of standards adopted, and the extent of implementation all have potentially serious shortcomings.

### C. Accountability

International law scholars have recognized for some time that traditional mechanisms of democratic accountability, and electoral accountability in particular, are infeasible in many international settings.<sup>175</sup> Scholars thus

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172. Prakash & Potoski, *Racing to the Bottom*, *supra* note 4, at 351–52; see also Matthew Potoski & Aseem Prakash, *Covenants With Weak Swords: ISO 14001 and Facilities’ Environmental Performance*, 24 J. POL’Y ANAL. & MGMT. 745, 762–63 (2005) (concluding that facilities with ISO 14001 certification reduce emissions more than noncertified facilities).

173. Ford Motor Company, *supra* note 76.

174. See *supra* note 78.

175. Benedict Kingsbury et al. suggest that it is important to “recognize that under current circumstances, no satisfactory democratic basis for global administration is available but that global administrative structures are nevertheless required to deal with problems national democracies are unable to solve on their own.” Kingsbury et al., *supra* note 8, at 50. For an analysis of accountability, see Lisa Schultz Bressman, *Beyond Accountability: Arbitrariness and Legitimacy in the Administrative State*, 78 N.Y.U. L. REV. 461 (2003), and Edward Rubin, *The Myth of Accountability and the Anti-Administrative Impulse*, 103 MICH. L. REV. 2073, 2073 (2005) (defining accountability to mean “the ability of one actor to demand an explanation or justification of another actor for its actions and to reward or punish that second actor on the basis of its performance or its explanation”).

have suggested differing approaches to the accountability problem. It is worthwhile to consider environmental supply-chain contracting under several of these approaches.

For example, Ruth Grant and Robert Keohane have argued that accountability to the governed cannot be replicated on the global level and that nondemocratic “accountability mechanisms” are necessary.<sup>176</sup> They suggest that accountability can be thought of as either involving delegation from a democratically legitimate body (such as the World Bank, which has been delegated authority from nation-states and is accountable to them)<sup>177</sup> or involving public participation.<sup>178</sup> In their view, the accountability debate reflects the tensions between the claims arising from these delegation and participation models.<sup>179</sup> They suggest that accountability need not conform to maximal principles of democratic participation,<sup>180</sup> and they offer seven alternative accountability mechanisms: hierarchical lines of responsibility, supervision by national governments, financial oversight, legal restrictions, market incentives, peer pressure, and reputational risk.<sup>181</sup> Of these, market incentives, peer pressure, and reputational risk are all means by which accountability can be said to occur in environmental supply-chain contracting.

Others, notably Terry Macdonald and Kate Macdonald, agree that democracy deficits arise on the global level, but assert that democratic accountability can still be achieved on a global scale so long as it is not grounded in electoral accountability.<sup>182</sup> They instead identify mechanisms that serve democratic purposes and perform the functions of democratic

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176. Grant & Keohane, *supra* note 165, at 29. Other approaches include the “learning accountability perspective.” See Michael C. Dorf & Charles F. Sable, *A Constitution of Democratic Experimentalism*, 98 COLUM. L. REV. 267 (1998).

177. Grant & Keohane, *supra* note 165, at 30–31 (noting that delegated entities’ “performance is evaluated by those entrusting them with powers”).

178. *Id.* For example, NGOs are accountable to “those who are affected by their actions” via participation by citizens. *Id.* at 31.

179. *Id.* at 41 (stating that the accountability debate is “fueled by a fundamental tension between claims derived from delegation models and claims derived from participation models of accountability”).

180. *Id.* (concluding that “[r]ecognizing new possibilities for accountability requires abandoning the belief that global accountability, to be genuine, must conform to abstract, maximal principles of democratic participation”).

181. *Id.* at 35–37; see also Kingsbury et al., *supra* note 8, at 58 (citing Grant & Keohane, *supra* note 165) (arguing that “alternative accountability mechanisms” may need to be crafted). Dan Esty has argued that “global administrative rules and procedures” should be added to the Ruth Grant and Robert Keohane list, Esty, *supra* note 2, at 1540, but these rules and policies are more relevant to private collective standard setting than to unilateral standard setting.

182. Macdonald & Macdonald, *supra* note 127, at 90 (noting that democratic accountability can be attained in global politics through nonelectoral accountability and that there is widespread agreement that global governance creates “democracy deficits”); see also Edward L. Rubin, *Getting Past Democracy*, 149 U. PA. L. REV. 711, 772–73 (2001).

accountability without seeking to base the accountability on institutions that derive their democratic legitimacy from elections.<sup>183</sup> The goal of these accountability mechanisms is “ensuring a reasonable degree of public control over public decision-making.”<sup>184</sup> They argue that decentralized and nonelectoral forms of accountability may be better adapted to the characteristics of global politics.<sup>185</sup> The key features of democratic accountability in their view are public transparency and public recourse through sanctions or other coercive power.<sup>186</sup>

Under any of these approaches a threshold question arises: Who or what should be held accountable, and to whom? One option is to assume that the customers of the importing firms are the principals driving private environmental contracting (and thus seeking the performance of a traditional governmental function—reducing the environmental harms from the production of goods), and that each of the agents of these customers should be accountable to them: the NGOs who stimulate or convey consumer preferences, the importing firms that sell the goods, and the exporting firms that manufacture them. Of course, this analysis leaves out many potential stakeholders, including the citizens of importing (often developed) countries who do not share the preferences for environmental protection, the investors and employees of the importing firm, the citizens of the exporting (often developing) country, the owners or employees of the exporting firm, and the community most immediately affected by the exporting firm.

Macdonald and Macdonald, in analyzing the nonelectoral accountability of the global garment industry, suggest that accountability should run to the “stakeholders” of each element of the garment industry supply chain, from the brand or retailer to the supplier, but they analyze accountability only from the perspective of the supplier’s workers.<sup>187</sup> They acknowledge that the

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183. Macdonald & Macdonald, *supra* note 127, at 92; *see also id.* at 100 (“The central theoretical idea guiding our argument here is the proposition that the legitimacy conferred by democratic institutions is derived from their capacity to achieve democratic purposes and perform democratic functions, rather than from any intrinsic value embodied in particular institutional mechanisms themselves.”) (emphasis in original).

184. *Id.* at 92; *see also id.* at 102 (arguing that elections are valued “because of their capacity to give democratic publics a certain degree of political control over the actions of representatives who are invested with powers over their public decision-making,” but nonelectoral means can achieve that end) (emphasis added).

185. *Id.* at 101.

186. Macdonald and Macdonald use these accountability mechanisms to evaluate not just traditional public actors but also NGOs and firms. *Id.* at 93.

187. They define democratic stakeholders as “those individuals affected (in ways that implicate democratic values of autonomy and equality) by the responsible exercise of political power.” *Id.* at 94.

resolution of differences among the various stakeholders requires some form of preference aggregation, but they do not offer one.<sup>188</sup>

Some level of accountability to all principals or stakeholders by all agents is an appealing concept but is probably not achievable regarding environmental supply-chain contracting. Nevertheless, the essential problem that this contracting addresses is that customers, as well as investors and employees, have preferences for environmental protection that they might otherwise seek government to require. To some extent, the pressure also may arise from the other aspects of the social license to operate, but the discussion in Part III.B.1.b suggests that a primary driving force behind environmental supply-chain contracting is concern by importing firms about customer responses to information about the environmental harms arising from the production of the imported goods. As a result, for the purposes of this Article, I analyze the accountability of exporting firms to the customers of the importing firm. To do so, I examine accountability at each step in the process by which customer pressure ultimately leads to pressure on exporting firms: the accountability of the NGOs to the public that they purport to speak for, the accountability of importing firms that NGOs pressure to engage in environmental supply-chain governance, and the accountability of exporting firms to importing firms.

I examine accountability using three criteria: (1) Can the actor be coerced into changing behavior (which I examine through the alternative accountability mechanisms of market pressure, peer pressure, and reputational risk); (2) does sufficient transparency exist for the coercion to occur; and (3) is participation sufficient for the coercion to reflect an acceptable aggregation of the preferences of the relevant individuals or groups?

### 1. Coercion

To hold exporting firms accountable for the environmental harms arising from their business activities, customers of importing firms must have a substantial ability to coerce changes in exporting firm behavior. Although in theory customers of importing firms could act alone, NGOs typically purport to speak for them. This analysis examines the extent to which the

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188. Consumers, investors, and potential workers are also affected, but for the purposes of the paper Macdonald and Macdonald take the “minimalist” position of focusing only on workers because only the power exercised over them constitutes political power (affecting autonomy, etc.). *Id.* at 96, 113. They acknowledge that stakeholder groups need to be able to “negotiate ‘horizontally’ amongst themselves” and that something would need to be developed to identify the “‘collective’ preferences of relevant stakeholders.” *Id.* at 113–14.

customers of importing firms can coerce NGOs, importing firms, and exporting firms to act consistent with the customers' preferences.

NGOs are sometimes described as "virtual representatives" of the public, but they are only representative in a very attenuated way.<sup>189</sup> Nevertheless, NGOs are subject to several forms of accountability. Although often overlooked, the most fundamental form of NGO accountability arises from their dependence on their members and the general public to engage in public protests and to respond to calls to boycott a firm. Much of NGOs' ability to coerce importing firms ultimately arises from their ability to maintain a reputation for mounting credible threats by mobilizing private volunteers to conduct boycotts or protests if firms fail to respond to their demands. This could be thought of as mobilization accountability or as a form of delegation accountability. NGOs also are subject to delegation accountability with respect to their donors. Finally, they are subject to participatory accountability through the mechanisms of peer accountability (to other NGOs, the press, and other organizations), fiscal accountability (to major donors), and market accountability (in the "market for donors").<sup>190</sup>

Of course, NGOs can abuse their power. Misguided boycotts or public information campaigns can be the product of misinformation, bias, personal agendas, or perverse incentives to gain media attention, members, and donors. A frequently cited example is the use of incorrect information by Greenpeace in its public campaign to force Shell to change the disposal method for the Brent Spar oil platform.<sup>191</sup> Nevertheless, NGOs' limited resources, reliance on reputation, and lack of formal coercive power limit the extent to which they can become untethered to public preferences.<sup>192</sup>

As a general rule, importing firms are constrained by their shareholders' demands for profit maximization to focus on the price and quality of the goods they sell, not on the environmental harms that escape government regulation.<sup>193</sup> Yet the prevalence of environmental supply-chain contracting and the discussion of firms' social license to operate suggests that importing

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189. Grant & Keohane, *supra* note 165, at 37.

190. See *id.*; see also Robert O. Keohane, *Commentary on the Democratic Accountability of Non-Governmental Organizations*, 3 CHI. J. INT'L L. 477, (2002); Peter J. Spiro, *New Global Potentates: Nongovernmental Organizations and the "Unregulated" Marketplace*, 18 CARDOZO L. REV. 957 (1996).

191. See Grant & Keohane, *supra* note 165, at 38.

192. *Id.* (noting that NGOs' "dependence on reputation and funding and their lack of coercive force or huge materials resources—makes the lack of formal accountability mechanisms for them less likely to lead to serious abuses of power than is the case for states"). See generally HETTY KOVACH, CAROLINE NELIGAN & SIMON BURALL, ONE WORLD TRUST, GLOBAL ACCOUNTABILITY REPORT 1: POWER WITHOUT ACCOUNTABILITY? (2003).

193. See Grant & Keohane, *supra* note 165, at 38.



firms are subject to several forms of participatory accountability, including market effects arising from organized consumer boycotts or simply reductions in sales.<sup>194</sup> More generalized concerns about firm reputation loss also are a source of coercive power for those NGOs that have the ability to influence public opinion.<sup>195</sup>

Even if consumers can sanction NGOs and NGOs can sanction importing firms, to achieve environmental improvements importing firms must be able to enforce environmental standards on exporting firms. To do so through procurement decisions, the market must include exporting firms that are able to comply with the importing firms' standards. If so, importing firms can enforce standards through market accountability (a threat not to purchase a product) or, if the terms are included in a contract, through legal accountability (a contract action). In addition, NGOs have some ability to bring pressure to bear on exporting firms through public opinion campaigns designed to influence the exporting firms' reputations in their local communities and with importing firms.

## 2. Transparency

The effectiveness of the coercion discussed above is largely driven by transparency. A number of transparency issues influence the accountability of environmental supply-chain contracting, including whether the customers of importing firms are aware of the following: (1) the capacity of the importing firm to control its suppliers of consumer products; (2) the environmental harms arising from the production of consumer products; (3) the identity of the firms and facilities doing the production for the importing firm; (4) the standards adopted and implemented by the importing firm; and (5) the compliance by the exporting firm. Each of these issues is potentially problematic.

Information about the capacity of an importing firm to affect its suppliers is necessary to enable allocation by the public of responsibility for decisionmaking, yet the information may be difficult to obtain and convey to the public.<sup>196</sup> In the garment industry, this "transparent public role delineation" involves making it clear to the public in consuming countries that major retailers and brands

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194. See *id.* (noting that firms are "[q]uite vulnerable to consumer boycotts").

195. See *id.* at 39.

196. Peter Grabosky has noted concerns about visibility and amenability to control, and has noted that "private institutions and actions, one step removed from the democratic process, are less accessible to public scrutiny." Peter N. Grabosky, *Using Non-Governmental Resources to Foster Regulatory Compliance*, 8 GOVERNANCE: INT'L J. POL'Y & ADMIN. 527, 538 (1995).

have the ability to influence the behavior of their suppliers.<sup>197</sup> Codes of conduct implicitly or explicitly recognize this role delineation.

Information about the environmental harms arising from the production of consumer products is often difficult to obtain. NGOs gather information and disseminate it through public information campaigns in the importing country, but the information gathering and dissemination are difficult and expensive. Information about the identity of the suppliers or their facility locations also may be difficult to obtain.<sup>198</sup>

Once a firm has disclosed that it will impose standards on suppliers, information about the content of the standards, the extent of their enforcement by the importing firm, and the extent of compliance by the exporting firm becomes important, but is also difficult to obtain. Information about the content of collectively set standards and the process by which they are set has been discussed at length elsewhere, but appears to be improving in several organizations.<sup>199</sup> For information shortfalls concerning unilaterally set standards, the processes of standard setting and content determination are even more problematic.<sup>200</sup> In addition, a firm can make substantial changes in the standard it actually imposes on a supplier by stating in broad terms that it has adopted a standard without posting the standard itself, by adopting and announcing a collectively or unilaterally set standard with subtle caveats (limiting a certification requirement to situations of commercial feasibility or adopting the standard as a procurement preference rather than a requirement), or by using contract terms (which typically are not publicly disclosed) that do not track the terms of the publicly available standard.

### 3. Participation

Stakeholder participation in standard setting and enforcement is not a robust accountability mechanism for private environmental contracting. Private collective standard-setting bodies have adopted notice-and-comment and other stakeholder participation mechanisms, but, aside from the customer or NGO pressure that provides the initial stimulus, little or no stakeholder participation occurs in the formation of private unilaterally set standards. Similarly, certification

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197. Macdonald & Macdonald, *supra* note 127, at 105.

198. Macdonald and Macdonald note that access by NGOs to information about locations where buyers have their products made is limited. *Id.* at 108.

199. See Meidinger, *supra* note 5, at 81–82.

200. Macdonald and Macdonald argue that two often overlooked aspects of transparency are the need to give the reasons for decisions to ensure that the process, not just its outcomes, are open to scrutiny, and the need to make all information available at “accessible cost.” Macdonald & Macdonald, *supra* note 127, at 108–09.

programs in some cases have adopted requirements for certifiers to consult with stakeholders regarding implementation, but stakeholder participation is still often limited. Stakeholder participation in implementation of unilaterally set standards is even less likely to occur.<sup>201</sup> In sum, little or no stakeholder participation typically occurs in firm decisions to enter into environmental contracts or to enforce them.

#### D. Institutional Alternatives

As the analysis above suggests, although environmental supply-chain contracting is remarkably widespread, the efficacy and accountability of private contracting as a governance regime is far from clear. The dispositive question, however, is: as compared to what?<sup>202</sup> Even though obvious shortcomings exist in the adoption, content, and implementation of the standards used in supply-chain contracting, the alternative regimes—markets without environmental supply-chain contracting; the statist regime, including international agreements and bilateral or unilateral state action; and the emerging public-private hybrids—have had limited success addressing many of the most important environmental problems.

##### 1. The Market Without Private Environmental Contracting

An alternative regime to global private governance through supply-chain contracting might include active global markets in which importing firms are discouraged or prevented from imposing environmental requirements on their suppliers or other contractors. Firms operating in developing countries and extracting global commons resources would be free to take advantage of lax governmental standards and enforcement. This approach may well yield higher levels of production at lower costs, at least in the near term. In addition, the economic benefits of this approach may lead the citizens of exporting countries, particularly developing countries, to demand stronger domestic environmental protections over time as per-capita income increases.<sup>203</sup>

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201. See Meidinger, *supra* note 5, at 85–86.

202. See KOMESAR, *supra* note 136; Edward L. Rubin, Commentary, *The New Legal Process, the Synthesis of Discourse, and the Microanalysis of Institutions*, 109 HARV. L. REV. 1393, 1424 (1996) (discussing comparative microanalysis of institutions).

203. On a related note, free market environmentalists also favor market-based approaches, but they advocate addressing environmental externalities by creating and allocating private property rights in the collective goods that are being polluted or depleted. See TERRY L. ANDERSON & DONALD R. LEAL, *FREE MARKET ENVIRONMENTALISM* (1991).

The efficacy of free market approaches without environmental contracting is uncertain at best, however. In fact, the rise of private environmental contracting is occurring because of the failure of unfettered global markets, as enforced by the WTO, to account for some types of environmental harms. As to relying on demands for environmental protection to increase as incomes increase, it is unclear whether the increasing demands actually will occur regarding some types of potentially catastrophic global environmental problems.<sup>204</sup> Even if they do, it is unclear whether they will occur sufficiently quickly to enable the avoidance of substantial, irreversible environmental harms and resource depletion (for example, climate change and destruction of fisheries).<sup>205</sup>

The global markets regime without environmental contracting also fares poorly on accountability considerations. On an intragenerational level, if the current customers of firms contracting in global markets are unable to express preferences for environmental protection through boycotts or other measures, and if the WTO continues to view many process-based environmental requirements as nontariff trade barriers, the contracting firms in global markets will not be accountable to either customers or states regarding a profoundly important effect of their behavior. These concerns about the distribution of the environmental costs and benefits of global trade are only exacerbated on an intergenerational level, since no free market mechanism accounts for inequities in the distribution of these costs and benefits across generations.

## 2. National and International Regulation

As with the unfettered market approach, the principal shortcoming of the national and international regulatory regime in comparison with environmental private contracting is efficacy. Although examples exist of effective international regulation (the Montreal Protocol is a widely cited example), the national and international public law regime on its own has been unable to address a number of environmental problems that pose grave threats. Roughly 70 percent of the world's major fisheries are at or beyond sustainable

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204. See David I. Stern, *The Rise and Fall of the Environmental Kuznets Curve*, 32 *WORLD DEV.* 1419, 1421–22 (2004).

205. Similarly, the allocation and enforcement of private property rights in collective goods is extremely difficult on the domestic level and nearly impossible on the global level without the formation of the type of global government that free market environmentalists would abhor. Examples include governmental institutions for standard setting, enforcement, and adjudication.

harvesting levels.<sup>206</sup> Tropical deforestation is increasing.<sup>207</sup> Biodiversity loss may be approaching rates not seen since the end of the Cretaceous Era sixty-five million years ago.<sup>208</sup> The science of climate change is becoming more alarming, yet despite the adoption of the Kyoto Protocol by most industrialized nations, global carbon emissions are projected to increase substantially.<sup>209</sup>

Development and enforcement of multilateral international regulatory requirements has been difficult. Collective action problems, the developed/developing country divide, and other challenges are barriers to effective international regulation. Unilateral national efforts to impose standards on other firms or nations face democracy deficits at home as well sovereignty barriers. Similarly, unilateral efforts to regulate through process-based requirements may be barred by the WTO.

In contrast, private environmental contracting may be an effective gap-filler or supplement to government regulation for many environmental problems. It provides a means of allowing the preferences for environmental protection of importing firm customers to be translated into market and private legal requirements on exporting firms, thus bypassing roadblocks to national and international regulation.<sup>210</sup> At the same time, it remains to be seen whether private environmental contracting can achieve changes in the behavior of firms and environmental gains where the public regime has failed.<sup>211</sup>

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206. See Martin, *supra* note 49, at B1; see also Gunther, *supra* note 157 (concluding that 25 percent of fisheries are depleted and 50 percent are at maximum capacity).

207. See, e.g., Jonathan H. Adler, *The Cartagena Protocol and Biological Diversity: Biosafe or Bio-Sorry?*, 12 GEO. INT'L ENVTL. L. REV. 761, 766 (2000) ("While forest cover in many developed countries is stable or increasing, deforestation of tropical forests, particularly in developing nations, is substantial and appears to be on the rise.").

208. See, e.g., Charles P. Lord et al., *Natural Cities: Urban Ecology and the Restoration of Urban Ecosystems*, 21 VA. ENVTL. L.J. 317, 322-23 (2003) ("The most recent major mass extinction cycle, triggered by an asteroid impact on the planet, occurred approximately 65 million years ago during the Cretaceous period and caused the extinction of approximately 76% of the then existing species on earth, including the last of the dinosaurs. Conservation biologists have now detected the start of a sixth major period of rapid extinction. This latest bout of biodiversity loss is directly linked to environmental degradation caused by human activity and over-exploitation of natural resources.") (citations omitted).

209. See Barton H. Thompson, Jr., *Tragically Difficult: The Obstacles to Governing the Commons*, 30 ENVTL. L. 241, 254 (2000).

210. Even if global consensus does not exist, so long as sufficient consensus exists for an NGO to make a credible threat of a consumer reaction, a firm may be induced to act. From a global level, this is a partial response to a partial consensus, which may be preferable to an attempt to achieve a multilateral agreement that fails because of a lack of a broader consensus.

211. See Grabosky, *supra* note 196, at 538, 540 (noting that private governance can lead to problems such as diffusion of responsibility between public and private regulators that can be "cynically exploited" by governments seeking to avoid blame and can leave governments with less capacity over time, and that the "oligopolistic model of interest representation . . . may distort the policy process"). Grabosky also points to the loss of civic commitment that can occur when many public functions are devolved to private parties. *Id.* at 541.

The relative strengths of statist approaches are greater regarding accountability. Direct electoral accountability often functions at the national level, and delegation from elected governments is at least possible at the international level. In addition, the various forms of participatory accountability also can occur at the national and international levels.

In contrast, direct electoral accountability and delegation from elected officials are not possible for the parties to private environmental contracts or for the NGOs that seek to influence them. The source of accountability lies instead in various alternative, largely participatory, mechanisms. Although the coercive force individuals can exercise against NGOs and importing firms is potentially quite strong (for example, through unwillingness to respond to boycott requests or to purchase a firm's products), the costs of information and collective action problems in organizing to overcome those costs limit the accountability of NGOs and firms to the individuals in an importing country. Most important is the difficulty of determining whether and how to aggregate the preferences of all of the potential stakeholders: customers and noncustomers in the importing country, importing firm shareholders and employees, exporting firm shareholders and employees, individuals in the local community of the exporting firm, and others affected by the production.

Private environmental contracting also suffers from an accountability deficit with respect to individuals in the exporting country who may prefer greater economic activity even if it involves unsustainable practices in the near term, and even if the greater economic activity will not lead to levels of prosperity that generate environmental improvements in the long term. Although in many cases the citizens of the exporting country will have equal or greater concerns for environmental quality than customers in importing countries, the possibility exists that substantial proportions of the exporting country population would prefer short-term economic gains over improvements in environmental quality. This is perhaps the most difficult issue if private contracting should be accountable to the citizens of the exporting as well as the importing countries. One response is simply that the parties to this type of private contract should not be held to account by the citizens of the exporting country. The demand for goods that generates the opportunity for exporting in the first place arises from consumers in the importing country. Thus, it is not clear that accountability should run to citizens in the exporting country who want the economic benefits of the trade but are unwilling to internalize the costs. On the other hand, if the customers of the importing firm are willing to pay the full costs of the goods, including pollution control or other environmental costs, the result may be beneficial to individuals in both countries.

The difficulties posed by identifying and accounting for the preferences of such a diverse group of stakeholders suggest that in many cases private environmental contracting may be ill-suited to serve as a standalone replacement for government regulation. Instead, it may better serve as a gap-filler where the combination of unfettered markets and government regulatory responses fail.

### 3. Public-Private Hybrids

Much of the analysis regarding national and international regulation applies to public-private hybrids as well. Although private standard setting may be more likely to lead to conflicting or incoherent standards than more traditional forms of public and public-private regulation, private collective standard-setting organizations may be able to increase the coherence of governance through private environmental contracting.<sup>212</sup> The private and public-private standard-setting bodies that often set the labeling, certification, or other standards that facilitate these agreements may have anticompetitive effects, but governments can respond by creating settings, such as voluntary programs, in which firm cooperation is less likely to generate anticompetitive behavior. Competition among the standard-setting bodies themselves also may reduce the risk that any one standard will be the product of anticompetitive behavior.<sup>213</sup>

### E. Improving Private Environmental Contracting

The comparison of private contracting to other private, public, and hybrid institutions demonstrates that private contracting is an attractive alternative in some cases. At the same time, it is not without shortcomings. This Subpart proposes steps to improve its efficacy and accountability.

It is tempting to look to government for legal requirements to shore up private contracting.<sup>214</sup> For example, to encourage wider adoption of standards and more effective content, governments in developed countries could require the adoption and implementation of specific environmental supply-chain standards by importing firms, or could simply require disclosure of existing practices to encourage NGO or consumer pressure for environmental supply-chain contracting. To encourage implementation, governments could seek to pressure

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212. See *id.* at 544. In addition, more sophisticated forms of government oversight may be required to assess efficacy. See *id.* at 545–46.

213. See, e.g., Suppliers Partnership for the Environment, <http://www.supplierspartnership.org> (last visited Feb. 15, 2007).

214. See, e.g., Macdonald & Macdonald, *supra* note 127, at 117 (suggesting that tort, contract, and “liability law” should be used to change exporting firm worker standards).

developing countries to develop and enforce environmental standards, or could modify contract or tort law principles to give NGOs or other private parties the right to enforce supply-chain contract terms even where the importing firm is unwilling to do so.<sup>215</sup> In many cases, however, even if particular government actions might achieve desired outcomes, the same barriers that have prevented state action to date are likely to do so in the future.

Nevertheless, government policymakers can include promotion of private contracting among the available options when they encounter environmental harms that are difficult to reach with the tools of public and public-private governance. A policymaker not only has traditional regulatory and economic tools at her disposal, she also can seek to stimulate private environmental contracting in supply-chain, credit, corporate asset, insurance, and other markets. To do so, policymakers can reduce information costs to firms by collecting and disseminating information regarding the adoption and implementation of private standards, and by supporting research on the costs and benefits of private environmental contracting.<sup>216</sup> Policymakers also can foster the development of supply-chain contracting by creating settings in which firm cooperation is unlikely to lead to anticompetitive behavior.

A more viable option may arise from changes in the culture and strategy of NGOs and their donors. Although a comprehensive discussion of these options is beyond the scope of this Article, several steps may yield substantial results. Employees and members of NGOs form beliefs and norms that may lead to reluctance to focus NGO efforts on private environmental contracting initiatives. They may be unduly skeptical that firms will adopt or enforce standards of conduct in response to anything but government pressure. In particular, they may be reluctant to accept that firms in some circumstances may have social and market incentives to abide by firm standards and to enforce the relevant provisions in agreements with other firms. Some level of collaboration with private firms following the application of pressure may be necessary to shape adequate requirements, yet collaboration may be viewed as morally suspect. NGOs also may fear that private measures will undermine

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215. At least in theory, governments could require that firms doing business in their jurisdictions impose demands, whether or not legally enforceable, on their suppliers and other contractors in developing countries. The examples of governments imposing such requirements are limited, however. Governments also can provide fora for the enforcement of private agreements.

216. The U.S. Environmental Protection Agency (EPA) has taken an initial step in this direction for the automotive sector by forming a partnership with automobile original equipment manufacturers and their suppliers to encourage the adoption of supplier requirements. See Suppliers Partnership for the Environment, *supra* note 213. The EPA also has identified private supply-chain contracting requirements as a possible means of reducing the environmental risks posed by nanotechnology. See Nanoscale Materials, Notice of Public Meeting, 70 Fed. Reg. 24,574 (May 10, 2005).



efforts to induce governments to regulate. Cultural changes within NGOs on these and related issues may be the most important element in the development of private environmental contracting as a form of governance.

As to strategies, NGOs may increase effectiveness by shifting resources from government advocacy toward public information campaigns directed at many of the smaller firms in sectors that already have been targeted, and to all firms in sectors that have not yet been the target of substantial NGO attention. Collective standard-setting bodies such as the ISO and others also could have a profound impact on the incentives for private environmental contracting if they include supply-chain contracting as a requirement for certification or compliance with collective standards. In addition, steps that reduce transparency problems may have a substantial impact. NGOs could reduce firm and NGO information costs by developing a clearinghouse that assembles and makes available firm supplier procurement policies, common supply agreement provisions, and other materials. Requiring disclosure of information about supply-chain requirements also could be an important part of private information disclosure initiatives (examples include the Global Reporting Initiative and the Global Environmental Management Initiative). Valuable types of information might include the precise environmental procurement standards adopted by firms, the extent to which they are implemented, and the environmental effects, if measurable.

In addition to transparency, the analysis demonstrates the importance of NGO enforcement through boycotts and public information campaigns. The sector data discussed above suggest that NGO-led consumer boycotts and public information campaigns may be quite effective at inducing firms to adopt environmental contracting requirements. Yet limited enforcement is a common criticism raised about private standards.<sup>217</sup> NGOs may need to develop new strategies to induce firms to enforce the environmental standards they have adopted for suppliers and other contractors.<sup>218</sup>

Private firms face difficult choices regarding private environmental contracting. In many cases, the costs of environmental supply-chain contracting may be prohibitive. Firms also may be leery about transparency regarding supply-chain and other contracting. Yet private environmental contracting may be more efficient than alternative regulatory regimes. Similarly, where firms face direct or NGO-mediated consumer demand for reduced environmental impacts, or where other social license pressures exist, engaging in supply-chain contracting

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217. See Shelton, *supra* note 26, at 10.

218. See, e.g., Margaret M. Blair & Cynthia Williams, Assurance Services as a Substitute for Law in Global Commerce (Sept. 15, 2006) (unpublished manuscript, on file with author) (noting the growth of private assurance services on the global level).

may be the least-cost option. In addition, the Wal-Mart example suggests that other economic benefits may arise, such as assuring the long-term supply of raw materials.

### CONCLUSION

This Article maintains that an important aspect of global governance arises not just from national and international governmental bodies or private collective standard-setting organizations, but directly from private parties. In some cases this new form of private governance transfers pressures created by public entities, but in many cases it bypasses public entities altogether, transferring demands for social amenities directly from the citizens of one country to the firms operating in another. This private governance exists as a network of private standards and agreements that influence the behavior of firms on issues sovereign states are unwilling or unable to address. The Article has focused on environmental supply-chain contracting, but contracting first gained public prominence as a means of regulating labor practices,<sup>219</sup> and it may be equally viable for health, safety, and other traditional domains of public regulation.

At least in theory, the growth in environmental private contracting provides a means to ameliorate the environmental harms from international trade. Private environmental contracting is not a panacea, and it is only one element of private governance. Numerous hurdles will need to be overcome if this form of private global governance is to achieve its theoretical promise. Scholars will need to conduct empirical and theoretical studies on private standard setting and contracting. Environmental groups may need to shift focus in ways that cut across the cultural grain: They may do more for the environment by inducing importing firms to impose standards on exporting firms than by focusing on national and international governments. Private firms also may need to assess whether the combination of legal, economic, and social incentives suggests that adoption of environmental contracting requirements is advisable.

The private contracting approach is not without risks. Private standards that reflect NGO biases may lead to misallocation of economic resources. Private standards without private enforcement and compliance may result in greenwashing and undermine government regulatory efforts. But the obstacles to government action are sufficiently high that pursuing this course of action may be a valuable gap-filling strategy, and possibly a longer term strategy, where government regulation and unfettered markets fail.

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219. See Grant & Keohane, *supra* note 165, at 35 (discussing labor standards and Nike); Macdonald & Macdonald, *supra* note 127, at 94 (discussing labor standards in the garment industry).