

STUDENT ARTICLES

A PLEA FOR EFFICIENCY: THE VOLUNTARY ENVIRONMENTAL OBLIGATIONS OF INTERNATIONAL CORPORATIONS AND THE BENEFITS OF INFORMATION STANDARDIZATION

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INTRODUCTION

After decades of advocacy through the Corporate Social Accountability (CSA) movement,¹ voluntary informational reporting by international corporate entities has proliferated across a bewildering array of formats. Corporations now regularly use product certifications, codes of conduct, environmental impact disclosures, investment activities, and numerous other information releases to non-employee stakeholders. Because of stakeholder expectations, growing transnational operational complexity, and looming regulatory threats, “voluntary” reporting has increasingly been seen as a necessary cost of doing business. Yet, without integration and standardization, such voluntary information releases will suffer from diminished value, yielding a “tragedy of transparency.” Furthermore, this Note posits that a standardized

¹ For the purposes of this article, “corporate social accountability” will be used interchangeably with “corporate social responsibility” and other like terms. “Accountability” better supports this Note’s emphasis on the economic efficiency of more standardized non-financial reporting. It also avoids the normative implications of “responsibility” that are not central to this Note. Although rarely used, the most accurate term would be “corporate environmental accountability.”

system of information aggregation to ensure efficient disclosure, access, and utilization is economically preferable to the patchwork of existing information disclosure systems.

The proposed integrated system of voluntary disclosures would require standardized reporting of voluntary obligations but would not itself require any additional substantive commitments to be met. Such an integrated mechanism becomes economically advantageous because it addresses the present deficiency in the availability, transmissibility, and comparability of environmental information strewn across a variety of disclosure settings. Given the coordination costs, organic development of an efficient information system seems unlikely and standardization of voluntary disclosure formats must be implemented under governmental authority through independent standard-setting organizations.

Before creating an integrated system, an analysis framework capable of evaluating informational inefficiencies is necessary. Unfortunately, existing scholarship on the legal environment affecting voluntary corporate environmental reporting is in its infancy.² There is still a vital need to identify the factors that support the standardization of voluntary environmental information reporting and to explain why an efficient informational system is not provided by market forces. This Note

² Although previous scholarship in this field is noteworthy for the variety of approaches it takes, it is of relatively recent origin. *See, e.g.*, Larry Catá Backer, *From Moral Obligation to International Law: Disclosure Systems, Markets and the Regulation of Multinational Corporations*, 39 GEO. J. INT'L L. 591 (2008); David Detomasi, *International Institutions and the Case for Corporate Governance: Toward a Distributive Governance Framework?*, 8 GLOBAL GOVERNANCE 421 (2002); Claire Moore Dickerson, *Transnational Codes of Conduct Through Dialogue: Leveling the Playing Field for Developing-Country Workers*, 53 FLA. L. REV. 611 (2001) (suggesting an international framework for good faith in relationships between direct and indirect employers and employees in developing labor standards); Allen L. White, *Why We Need Global Standards for Corporate Disclosure*, 69 LAW & CONTEMP. PROBS., 167 (2006) (discussing the need for global disclosure standards); Cynthia A. Williams, *The Securities and Exchange Commission and Corporate Social Transparency*, 112 HARV. L. REV. 1197 (1999) (suggesting the need to broaden the scope of disclosure for publicly traded companies); DEBORAH DOANE, MARKET FAILURE: THE CASE FOR MANDATORY SOCIAL AND ENVIRONMENTAL REPORTING, NEW ECONOMICS FOUNDATION (Mar. 20, 2002), <http://www.hapinternational.org/pool/files/doanepaper1.pdf> (arguing for mandatory disclosure regimes). While each of these writers provides valuable insights, I hope to contribute a new perspective to the dialogue.

will examine the reporting contexts relevant to publicly owned international corporations (ICs)³ and develop a standardization analysis for environmental information.⁴ Considered together, theories of information regulation, standardization, and corporate environmental management will provide a basis for addressing issues unique to corporate environmental reporting. This will prove particularly useful to corporations interested in streamlining the myriad methods currently employed to present themselves to non-corporate actors.⁵

Current corporate reporting systems superficially serve industry interests yet ultimately detract from potential corporate value by consistently failing to effectively aggregate and disseminate information. The inefficient provision of information is projected to worsen with the growth of new voluntary environmental impact reporting systems. Improving the market efficiency of voluntary environmental disclosure will reduce information costs for both companies and stakeholders.

This Note will identify the impending crisis of voluntary disclosure, demonstrate the importance of resolving this inefficiency, and discuss a potential solution through standardization. Thus, Part I will provide an overview of the problematic and fragmented system utilized by multinational corporations for disclosure of their environmental impacts. It will also describe how the proliferation of reporting standards across environmental media, industries, and countries constitutes an inefficient information burden for international corporations and their stakeholders. Part II will examine the role of voluntary disclosure by international corporations and its importance for achieving viable environmental solutions. Part IV will explain

³ “IC,” “multinational corporation” (MNC), and “transnational corporation” (TNC) will be used interchangeably in this Note.

⁴ While it is clear that smaller businesses could benefit from similar treatment, limiting this discussion to the IC context illustrates the potential magnitude of the reporting problem. Others have begun to address how smaller corporate entities confront these issues. *See, e.g.,* Cheryl Rodgers, *Sustainable Entrepreneurship in SMEs: A Case Study Analysis*, 17 CORP. SOC. RESP. ENVTL. MGMT. 125, 125–32 (2010), <http://onlinelibrary.wiley.com/doi/10.1002/csr.223/pdf>.

⁵ This Note will concentrate on corporate-side efficiency with the understanding that profit-seeking actors must experience net benefits in order to facilitate the recommended transition. Thus, although this Note will focus on the benefits to corporate information suppliers, the advantages to the regulators and regulatory beneficiaries will be addressed where applicable.

how standardization can provide efficient information disclosure in the environmental context and offer recommendations for avoiding the looming crisis in the effectiveness of voluntary environmental obligations.

I. SURVIVING THE SURFEIT: THE VOLUNTARY DISCLOSURE CRISIS

Given the myriad methods by which corporations may demonstrate environmentally responsible practices, there is little doubt that stakeholders can at times be overwhelmed. This results in a “tragedy of transparency”⁶ in which increased information released across inconsistent standards and presentation formats allows firms to be strategically ambiguous in their self-representation. This ambiguity is further facilitated by the variety of inconsistent standards for the collection, audit, and dissemination of information regarding their environmental and social practices. Consumers and investors simply cannot rely on the existing disclosure regime to provide thereliable information necessary to monitor compliance. Absent the development of an efficient and standardized reporting framework, the market for these voluntary actions could collapse as consumers and investors stop offering rewards for responsible business behavior and transparent accountability.⁷

Aligning corporate activities with environmental sustainability has increasingly demonstrated significant returns on investment⁸ and environmental sensitivities are now prevalent in corporate operations and communications with the public,⁹ investors,¹⁰ and shareholders.¹¹ Overcompliance, the corporate

⁶ Michael R. Siebecker, *Trust & Transparency: Promoting Efficient Corporate Disclosure through Fiduciary-Based Discourse*, 87 WASH. U. L. REV. 115, 122 (2009).

⁷ *Id.*

⁸ DAN ESTY & ANDREW WINSTON, GREEN TO GOLD: HOW SMART COMPANIES USE ENVIRONMENTAL STRATEGY TO INNOVATE, CREATE VALUE, AND BUILD COMPETITIVE ADVANTAGE 10–12 (2006).

⁹ See, e.g., Tom J. Brown & Peter A. Dacin, *The Company and the Product: Corporate Associations and Consumer Product Responses*, 61 J. MARKETING 68, 68 (1997); Sankar Sen & C.B. Bhattacharya, *Does Doing Good Always Lead to Doing Better? Consumer Reactions to Corporate Social Responsibility*, 38 J. MARKETING RES. 225, 225 (2001).

¹⁰ In June 2008, the United Nations reported that owners and managers of worldwide assets valued at more than \$14 trillion had signed the U.N. Principles for Responsible Investment, an international compact in which signatories pledge to screen investments based on certain environmental, social, and governance

decision to voluntarily engage in heightened disclosure, can be assessed through benefit-cost analysis of tangible and intangible value¹² and, increasingly in the environmental and social sectors, has become a crucial competitive advantage.¹³ In 2009, 93% of companies in the S&P 100 Index included information about social and environmental business practices on their websites.¹⁴ Moreover, 66% of those same companies issued special “sustainability reports” upon which environmental and socially sensitive investors and consumers rely.¹⁵

Voluntary mechanisms that provide disclosure of environmental impacts also represent a model for avoiding additional command and control intervention while retaining some benefits.¹⁶ They also more closely resemble the environmental impact alleviation achieved through negotiation, and thus are a

issues. Press Release, U.N. Global Compact, Principles for Responsible Inv.: Signatories Double in One Year; Institutional Investors ‘Taking Implementation to the Next Level’ (June 17, 2008), available at http://www.unglobalcompact.org/NewsAndEvents/news_archives/2008_06_17a.html. Within the United States, approximately “one out of every nine dollars under professional management . . . today is involved in socially responsible investing” for a total aggregate value in excess of \$2.7 trillion. Social Investment Forum, *Executive Summary: 2007 Report on Socially Responsible Investing Trends in the United States*, ii (2007), <http://socialinvest.org/resources/req/?fileID=7>.

¹¹ Lisa M. Fairfax, *Making the Corporation Safe For Shareholder Democracy*, 69 OHIO ST. L.J. 53, 89 (2008).

¹² Many academics and market professionals suggest that companies should embrace CSA practices because they promote long-term shareholder value, regardless of any premium for stock or product price a compliant company might garner. See, e.g., George Pohle & Jeff Hittner, *Attaining Sustainable Growth Through Corporate Social Responsibility*, IBM GLOBAL BUS. SERVICES, 1 (2008), <http://www-935.ibm.com/services/us/gbs/bus/pdf/gbe03019-usen-02.pdf>; Joe W. (Chip) Pitts III, *Business, Human Rights, & the Environment: The Role of the Lawyer in CSR & Ethical Globalization*, 26 BERKELEY J. INT’L L. 479, 485 (2008).

¹³ A 2008 survey of international business leaders surveyed by IBM indicates that 68% of those surveyed focus on CSA activities to generate new revenue and that 54% believe current CSA initiatives give their company an advantage over competitors. Pohle & Hittner, *supra* note 12, at 3.

¹⁴ Press Release, Soc. Inv. Forum, No. of S&P 100 Firms Producing Sustainability Reports Jumps by More Than a Third; Nearly All Offer Sustainability Info. (December 17, 2009), available at <http://www.socialinvest.org/news/releases/pressrelease.cfm?id=148>.

¹⁵ *Id.*

¹⁶ See Dorit Kerret & Alon Tal, *Greenwash or Green Gain? Predicting the Success and Evaluating the Effectiveness of Environmental Voluntary Agreements*, 14 PENN ST. ENVTL. L. REV. 31 (2005).

preferred option for efficient market advocates.¹⁷ Such voluntary agreements yielding increased disclosure can also avoid crippling deadlock by allowing compromise when there would otherwise be inadequate political support for regulation. For example, in the greenhouse gas (GHG) context, voluntary disclosure systems have rapidly proliferated and are expected to reduce conflict between government and the regulated community. Additionally, these systems accustom companies to collecting relevant data and responding to environmental impact.¹⁸

Despite their advantages, voluntary obligations are prone to abuse and ineffectiveness without oversight measures. At stake is not simply inefficiency but the potential demise of the market for good CSA practices if consumers and investors are unwilling to pay a premium for corporate practices whose accuracy and efficacy cannot be substantiated. This failure in transparency due to a deficiency in trustworthy auditing processes, enforcement mechanisms, or robust disclosure requirements sounds a potential death knell for the economic benefits of voluntary environmental disclosure.¹⁹

While acknowledging decades of stakeholder pressure through the CSA movement that have made environmental reporting widespread, this Note will not normatively evaluate the movement or its goals. Instead, it will assess regulatory efficiency in the current environment where options for voluntary disclosure are simultaneously increasing in number and complexity. In establishing the inefficient ad-hoc development of voluntary reporting systems and concentrating on companies that operate internationally across a diverse range of legal environments, it will be possible to examine the information costs that affect the global competitiveness of U.S. based corporations.

¹⁷ See Panagiotis Karamanos, *Corporate, Government, and Nonprofit Sector Incentives for Participation or Development of Voluntary Environmental Agreements*, 4–6 (2000), <http://law.duke.edu/news/papers/pkwebpaper.pdf>; Richard Stewart, *A New Generation of Environmental Regulation?*, 29 *CAP. U. L. REV.* 21, 82–83 (2001) (examining the potential for consensual accords to transform corporate culture from resisting environmental interventions to seeking innovation and increasingly environmentally friendly performance).

¹⁸ See Stewart, *supra* note 18, at 82–83, 88.

¹⁹ See Siebecker, *supra* note 6, at 122 (advocating a reorientation of corporate securities law around the doctrine of encapsulated trust as a means of building on the fiduciary duties of care and loyalty and extending these duties through a broader range of contexts).

A. *Civil Regulations and the Voluntary Commitments of International Corporations*

A global governance regime has emerged in the past several decades through voluntary, private, non-state industry and cross-industry codes that address labor practices, environmental performance, and human rights policies. These “civil regulations” govern multinational enterprises and their global supply networks.²⁰ They regulate the impact ICs have on human rights practices, labor conditions, environmental sustainability, and community development, particularly in less developed countries.²¹

Public interest groups, NGOs, and stakeholders have spurred the growth of civil regulations through calls for enforceable instruments to promote corporate accountability.²² Civil regulations differ from customary methods of business self-regulation in several ways. For example, by promoting a variety of public interests, not just the interests of companies or industries,²³ civil regulations arise in reaction to society’s expectations.²⁴ These expectations are primarily driven by engaged stakeholders such as activists concerned with CSA, investors, or beneficiaries of the business activity. In sum, civil regulations establish non-state governance mechanisms for transnational companies and markets.²⁵

The quantity and scope of global civil regulations have grown substantially since the 1990s.²⁶ Nearly all global industry sectors and internationally traded products or services rely on private regulations that specify standards for responsible business

²⁰ See generally David Vogel, *Private Global Business Regulation*, 11 ANN. REV. POL. SCI. 261, 265–68 (2008) (discussing various aspects of civil regulation).

²¹ See *id.* at 262.

²² Jonathan P. Doh & Terrence R. Guay, *Corporate Social Responsibility, Public Policy, and NGO Activism in Europe and the United States: An Institutional-Stakeholder Perspective*, 43 J. MGMT. STUD. 47, 47 (2006).

²³ See Vogel, *supra* note 20, at 263.

²⁴ See *id.* at 262–63.

²⁵ Robert Falkner, *Private Environmental Governance and International Relations: Exploring the Links*, 3 GLOBAL ENVTL. POL., 72, 79 (2003).

²⁶ Rhys Jenkins, *Corporate Codes of Conduct: Self-Regulation in a Global Economy*, UNITED NATIONS RES. FOR SOC. DEV., 1 (Apr. 2001), <http://www.unrisd.org/80256B3C005BCCF9/%28httpPublications%29/E3B3E78B9A886F80256B5E00344278?OpenDocument>.

conduct.²⁷ At present, there are approximately three hundred such products or industry codes.²⁸ While many of these codes address environmental or employment practices,²⁹ others regulate a significant number of different products and sectors.³⁰ The interrelationships of codes can be exceedingly complex as a large number of companies have formulated their own codes while simultaneously subscribing to additional industry and cross-industry codes of conduct.³¹ With uncertain success, the United Nations has attempted to play a role in simplifying the codes. The United Nations Global Compact with more than 3,500 corporate signatories spanning six continents is the biggest private business code.³² The United Nations Principles for Responsible Investment had more than 381 major global financial institutions signatories in 2008 and represented assets of \$14 trillion.³³ These tools of self-regulation and voluntary compliance have developed within the global business framework and assist firms in their commitments to corporate responsibility.³⁴ Together, they reduce the environmental and social risk exposure of firms.³⁵

²⁷ The Business Charter for Sustainable Development authored by the International Chamber of Commerce has been signed by more than 2,300 companies. David Vogel, *The Private Regulation of Global Corporate Conduct: Achievements and Limitations*, 49 BUS. & SOC'Y 68, 72 (2010).

²⁸ Vogel, *supra* note 21, at 262.

²⁹ *Id.*

³⁰ *Id.*

³¹ *Id.*

³² See generally U.N. Global Compact Office, *U.N. Global Compact: Corporate Sustainability in the World Economy* (Feb. 2011), http://www.unglobalcompact.org/docs/news_events/8.1/GC_brochure_FINAL.pdf.

³³ Press Release, U.N. Global Compact, Principles for Responsible Inv.: Signatories Double in One Year; Institutional Investors 'Taking Implementation to the Next Level' (June 17, 2008), available at http://www.unglobalcompact.org/NewsAndEvents/news_archives/2008_06_17a.html.

³⁴ Voluntary compliance takes various forms ranging from best practices, codes of conduct, environmental and social management systems, performance standards, labeling and certification schemes, rating agencies, sustainable monitoring, reporting transparency, and disclosure guidelines. See generally Thomas McInerney, *Putting Regulation Before Responsibility: Towards Binding Norms of Corporate Social Responsibility*, 40 CORNELL INT'L L.J. 171 (2007).

³⁵ A testament to the scale of potential risk can be seen in the state level insurance requirements adopted by the National Association of Insurance Commissioners in March 2009. These require every insurance company with annual premiums of \$500 million or more to complete an Insurer Climate Risk Disclosure Survey. The first reporting deadline on May 1, 2010 disclosed both financial risks and actions taken in response to them. Press Release, Nat'l Ass'n

The proliferation of voluntary agreements further complicates the environmental management responsibilities confronting ICs in regards to both their voluntary and mandatory obligations. Determining a company's compliance with both voluntary obligations and applicable environmental laws is by no means easy and at present is arguably impossible.³⁶ This is true internally for managers,³⁷ externally for investors assessing corporate performance,³⁸ and, more broadly, for stakeholders concerned with corporate accountability. There is no single management or monitoring system that comprehensively assures full and continuous compliance with all legal requirements. Instead, most large companies rely on an interrelated array of policies and procedures (e.g., environmental management systems³⁹ and auditing methods⁴⁰) to try to assure satisfactory compliance with

of Ins. Comm'rs, Ins. Regulators Adopt Climate Change Risk Disclosure (March 17, 2009), available at http://www.naic.org/Releases/2009_docs/climate_change_risk_disclosure_adopted.htm.

³⁶ David Monsma & John Buckley, *Non-Financial Corporate Performance: The Material Edges of Social and Environmental Disclosure*, 11 U. BALT. J. ENVTL. L. 151, 151 (2004). See also Lucia Ann Silecchia, *Ounces of Prevention and Pounds of Cure: Developing Sound Policies for Environmental Compliance Programs*, 7 FORDHAM ENVTL. L. REV. 583, 591 (1996) (indicating the practical impossibility of being in total compliance); David B. Spence, *The Shadow of the Rational Polluter: Rethinking the Role of Rational Actor Models in Environmental Law*, 89 CALIF. L. REV. 917, 931 (2001) (noting a survey of corporate environmental managers in which seventy percent claimed that perfect compliance is impossible).

³⁷ J.B. Ruhl & James Salzman, *Mozart and the Red Queen: The Problem of Regulatory Accretion in the Administrative State*, 91 GEO. L.J. 757, 770–71 (2003) (documenting statements by Occidental Petroleum Vice President that a single refining plant would require hundreds of thousands of regulatory transactions each year).

³⁸ See John W. Bagby, Paula C. Murray & Eric T. Andrews, *How Green Was My Balance Sheet? Corporate Liability and Environmental Disclosure*, 14 VA. ENVTL. L.J. 225, 337 (1995) (“The environmental laws require only fragmented filings in non-centralized locales and lack public distribution of company-specific environmental compliance information. Even the most diligent investor would have a difficult task uncovering useful environmental information concerning a particular firm.”).

³⁹ See, e.g., Donald A. Carr & William L. Thomas, *Devising a Compliance Strategy Under the ISO 14000 International Environmental Management Standards*, 15 PACE ENVTL. L. REV. 85, 151–53 (1997) (discussing core themes of ISO 14001).

⁴⁰ See, e.g., Nancy K. Kubasek, M. Neil Browne & Carrie Williamson, *The Role of Criminal Enforcement in Attaining Environmental Compliance in the United States and Abroad*, 7 U. BALT. J. ENVTL. L. 122, 159–60 (2000) (“One way to ensure that a firm is in compliance with such standards is to regularly

applicable environmental laws and self-imposed commitments.⁴¹

Unlike traditional governmental authority with a clear hierarchy, there is no clear top-to-bottom influence on international commercial society within transnational civil regulation.⁴² This can be attributed to the unique effects of globalization. Globalization has profoundly transformed the landscape of international civil and business regulation. The private sector's influence on public policy and regulation has intensified⁴³ corresponding to the decentralization of state regulatory power.⁴⁴ To provide stability and promote investor and operator confidence, blends of self-regulatory institutional structures are replacing the traditional mode of top-to-bottom hierarchical regulation.⁴⁵ The civil regulatory structure is thus

engage in a process of environmental auditing.”); Michael Ray Harris, *Promoting Corporate Self-Compliance: An Examination of the Debate over Legal Protection for Environmental Audits*, 23 *ECOLOGY L.Q.* 663, 666 (1996) (“The environmental audit is one self-compliance method that corporations frequently adopt.”).

⁴¹ Cf. Ruhl & Salzman, *supra* note 37, at 833–34 (“Under this view, compliance is simply one more business risk to be managed. This cost of doing business view, however, suggests that the proper goal for regulated parties in the face of reams of rules should not be one of substantial compliance (good apple) but, rather, of strategic compliance (bad apple). Hence, the regulated community’s task lies in determining the ‘efficient level’ of noncompliance. Of course, this approach demands that regulated parties, not regulators, make the tough decisions about which rules to emphasize and which to ignore.”).

⁴² See Kenneth W. Abbott & Duncan Snidal, *The Governance Triangle: Regulatory Standards Institutions and the Shadow of the State*, in *THE POLITICS OF GLOBAL REGULATION* 44, 48 (Walter Mattli & Ngaire Woods eds., 2009), available at http://www.asil.org/files/abbotsnidal_march2008.pdf. For example, civil regulations adopted by private enterprise tend to incorporate host countries’ domestic legal norms. See *id.* at 49. Moreover, many private regulatory initiatives result from regulatory standards promulgated by intergovernmental organizations, such as the International Finance Corporation of the World Bank, the International Labor Organization, and the Organization for Economic Cooperation and Development. *Id.* at 44. Further, the United Nations and the European Union, along with the governments of Austria, Belgium, France, Germany, Great Britain, and the United States, have all been involved in promoting the establishment of global industry codes of conduct.

⁴³ Cf. Yuval Feldman & Orly Lobel, *Decentralized Enforcement in Organizations: An Experimental Approach*, 2 *REG & GOVERNANCE* 165, 165–92 (2008) (concluding that social and cultural norms dominate state regulation and its policy-making as far as civil enforcement).

⁴⁴ *Id.*

⁴⁵ See generally Orly Lobel, *Setting the Agenda for New Governance Research*, 89 *MINN. L. REV.* 498, 498 (2004) (discussing employment disputes, organizational compliance, financial regulation, and employee misconduct).

characterized by alliances built among nation-states, NGOs, and business enterprises.

Increasingly, dialogue, negotiation, and cooperation between the public and private sectors shape policy concerns.⁴⁶ Consequently, the regulatory instruments of global business are undergoing transformation. Market agents operating transnationally are less restricted by the administrative and legislative powers of any one jurisdiction and instead self-impose business disclosure, monitoring, reporting, and transparency requirements.⁴⁷

B. *Types of Civil Regulations*

The voluntary mechanisms that global companies are deploying to manifest their principles for responsible business conduct may be categorized as follows: (1) self-generated codes; (2) inter-firm cooperation and cross-industry associations; and (3) co-regulation and multi-stakeholder partnerships developed collaboratively with other entities, such as public-private and hybrid partnerships (governments, international organizations, NGOs, and trade unions).⁴⁸

Self-generated codes of conduct are a prevalent feature of large, global companies attempting to regulate their operations worldwide. The Global Sullivan Principles of Social Responsibility first promulgated in 1999 exemplifies such voluntary self-regulation.⁴⁹ The Principles encompass the breadth of CSA, including: employee freedom of association, health and environmental standards, and sustainable development.⁵⁰ These efforts can have ripple effects—as seen by the pressure faced by Fortune 500 companies to adjust their internal practices to comply

⁴⁶ See Orly Lobel, *The Renew Deal: The Fall of Regulation and the Rise of Governance in Contemporary Legal Thought*, 89 MINN. L. REV. 342, 371–76 (2004) (citing increased corporate governance signifying public influence).

⁴⁷ See Feldman & Lobel, *supra* note 43, at 165 (noting the role of reputational sanctions to address business misconduct).

⁴⁸ See generally ELISA MORGERA, CORPORATE ACCOUNTABILITY IN INTERNATIONAL ENVIRONMENTAL LAW (2009).

⁴⁹ See *The Global Sullivan Principles*, THE SULLIVAN FOUND., <http://thesullivanfoundation.org/about/global-sullivan-principles> (last visited July 18, 2012) (set of voluntary principles for corporations to help improve overall social responsibility).

⁵⁰ *Id.*

with these standards.⁵¹ Another example of voluntary self-regulation can be seen in the Global Business Standards (GBS) Codex published in 2005 by a group of scholars and intended “as a benchmark for [firms] wishing to create their own world-class code.”⁵²

Among the more significant mechanisms utilized to influence global civil society are inter-firm and cross-industry cooperative instruments developed through CSA business associations. These nongovernmental associations of businesses promote the dissemination of best business practices and formulate strategies for concerted action in the form of self-regulating proposals within the private sector.⁵³ Business associations serve as forums for corporate leaders to discuss and agree on the creation of consolidated private rules, standards, and management instruments, all in the absence of legally enforceable “hard” sanctions.⁵⁴ This allows such business associations to serve as an interface between public and private authorities.⁵⁵

⁵¹ See, e.g., Gordon Leslie Clark & Tessa Hebb, *Why Do They Care? The Market for Corporate Global Responsibility and the Role of Institutional Investors* 17–23 (June 16, 2004) (unpublished paper presented at the Using Pensions for Social Control of Capitalist Investment Conference), available at http://www.community-wealth.org/_pdfs/articles-publications/state-local/paper-clark.pdf (noting that CalPERS’ may withhold investment in companies that do not meet the Sullivan Principles, thus creating the risk of reputational harm).

⁵² Lynn Paine, Rohit Deshpandé, Joshua D. Margolis & Kim Eric Bettcher, *Up to Code: Does Your Company’s Conduct Meet World-Class Standards?*, HARV. BUS. REV., Dec. 2005, at 122, 124. The GBS Codex set forth principles shared by five well-known codes that are embraced by the world’s largest companies and contained an amalgamation of prudential, technical, and moral norms, declared as general principles.

⁵³ For example, Business for Social Responsibility runs programs on topics that include business ethics, the workplace, the marketplace, the community, the environment, and the global economy. See *How We Work*, BUS. FOR SOC. RESP., <http://www.bsr.org/en/about/how-we-work> (last visited April 5, 2011) (discussing various BSR programs). Similar business associations include: Business in the Community, Caux Round Table, CSR Europe, Forum Empresa, International Business Leaders Forum, International Chamber of Commerce (ICC) and World Business Council for Sustainable Development (WBCSD).

⁵⁴ See Laura Albareda, *Corporate Responsibility, Governance and Accountability: From Self-Regulation to Co-Regulation*, 8 CORP. GOVERNANCE 430, 434–435 (2008) (discussing corporate social accountability driven organizations existing in place of legal standards).

⁵⁵ See *id.* at 436 (noting while inter-firm initiatives are typically underwritten by corporate contributions, financial backing is sometimes obtained from international organizations such as European Union, various national governments, and the United States).

Co-regulation and multi-stakeholder partnerships represent the most extensive noncompulsory commitment by corporations to establish monitoring mechanisms for firms and improve accountability.⁵⁶ These partnerships can develop from broad coalitions linking civil society organs, firms, government agencies, international organizations, NGOs, professional associations, and religious groups and can have extensive impact on public policy formation. This can occur on three levels: (1) establishment of standards, (2) development of regulatory structures, and (3) creation of assessment and enforcement systems.⁵⁷ The Global Reporting Initiative is the leading example of such a system. Co-regulation and multi-stakeholder partnerships demonstrate a shift towards accountability backed by enforcement.⁵⁸ Reputational capital, sanctions, and rewards are at stake and leveraging these provides a degree of accountability in global governance.⁵⁹ This emphasis on corporate legitimacy shifts the role of businesses in society,⁶⁰ while the desire to preserve or enhance reputational capital further influences transnational corporate conduct.⁶¹ Altering procurement protocols of corporate giants such as Carrefour, Tesco, and Wal-Mart can obtain more substantial environmental and social results than enacting even sweeping regulatory reform at the national level.⁶² NGO-led collaborations with transnational companies have been instrumental to the creation, legitimacy, and efficacy of civil regulations.⁶³

⁵⁶ See JOHN BRAITHWAITE & PETER DRAHOS, *GLOBAL BUSINESS REGULATION* 168–69 (2000).

⁵⁷ See generally *id.* at 550.

⁵⁸ See Peter Utting, *Corporate Responsibility and the Movement of Business*, 15 *DEV. PRACTICE* 375, 381 (2005).

⁵⁹ *Id.* at 384 (discussing the relationship between rewards and penalties on accountability and performance).

⁶⁰ See Beverly Kracher & Kelly D. Martin, *A Moral Evaluation of Online Business Protest Tactics and Implications for Stakeholder Management*, 114 *BUS. & SOC'Y REV.* 59, 61–64 (2009) (discussing businesses' management of corporate image in response to activists using the internet to protest "objectionable business practices").

⁶¹ See Vogel, *supra* note 21, at 267.

⁶² Philipp Pattberg, *The Institutionalization of Private Governance: How Business and Nonprofit Organizations Agree on Transnational Rules*, 18 *GOVERNANCE* 589, 590 (2005).

⁶³ *Id.* at 589-610; Dennis A. Rondinelli & Ted London, *How Corporations and Environmental Groups Cooperate: Assessing Cross-Sector Alliances and Collaborations*, 1 *ACAD. MGMT. EXECUTIVE* 61, 62–76 (2003).

C. *Next Steps in the Evolution of Civil Regulations*

Despite the promising efforts thus far in developing civil regulations, most legal scholars conclude that a new paradigm for disclosure rules and enforcement is needed. Mitchell Crusto has categorically declared that regulators, the investment community, and voluntary corporate initiatives have failed in changing corporate behavior.⁶⁴ Others, such as David Sand and David Case independently argue that greater standardization, oversight, and enforcement of non-financial disclosures would bring about greater benefits for both shareholders and stakeholders.⁶⁵ Similarly, Allen White argues for global uniformity in disclosure standards.⁶⁶ Some focus on deficiencies in enforcement and, like Lucien Dhooge, conclude that verification and enforcement structures are needed if disclosure regimes are to fulfill their potential.⁶⁷ Wendy Wagner emphasizes the need for penalties for failure to disclose negative information.⁶⁸ Still others, such as Larry Backer, argue that the new rules and enforcement mechanisms must be supranational.⁶⁹ Despite differences in preferred approach, taken together these scholars indicate a significant consensus that changes in voluntary disclosure are necessary.

This Note builds upon these academic efforts by emphasizing both the incentive structure and the format that standardized voluntary disclosure should take. Accordingly, two of the more

⁶⁴ Mitchell F. Crusto, *Endangered Green Reports: "Cumulative Materiality" in Corporate Environmental Disclosure After Sarbanes-Oxley*, 42 HARV. J. ON LEGIS. 483, 486 (2005).

⁶⁵ David F. Sand & E. Ariane van Buren, *Environmental Disclosure and Performance: The Benefits of Standardization*, 12 CARDOZO L. REV. 1347, 1348-49 (1991); David W. Case, *Corporate Environmental Reporting as Informational Regulation: A Law and Economics Perspective*, 76 U. COLO. L. REV. 379, 384 (2005).

⁶⁶ Allen L. White, *Why We Need Global Standards for Corporate Disclosure*, 69 LAW & CONTEMP. PROBS. 167, 175 (2006).

⁶⁷ Lucien J. Dhooge, *Beyond Voluntarism: Social Disclosure and France's Nouvelles Régulations Économiques*, 21 ARIZ. J. INT'L & COMP. L. 441, 446 (2004).

⁶⁸ Wendy E. Wagner, *Commons Ignorance: The Failure of Environmental Law to Produce Needed Information on Health and the Environment*, 53 DUKE L. J. 1619, 1745 (2004).

⁶⁹ Larry Catá Backer, *From Moral Obligation to International Law: Disclosure Systems, Markets and the Regulation of Multinational Corporations*, 39 GEO. J. INT'L L. 591, 592-93 (2008).

intractable problems with standardization are resolved through effective incentivizing and dynamic institutional support. In the proposed standardized system, large corporations would obtain significant efficiency gains while an independent standard-setting organization with enforcement authority would resolve the collective action barriers. The shift towards a new paradigm of environmental information disclosure thus makes economic and social sense.

II. THE IMPORTANCE OF STANDARDIZING THE VOLUNTARY DISCLOSURE OF INTERNATIONAL CORPORATIONS

A. *The Role of International Corporations for Effective Information Regulation*

International corporations impact the lives of people and the environment beyond the exclusive control of a single state.⁷⁰ Despite the limitations on state control of corporate activities, however, the states and countries of incorporation nonetheless possess a significant capacity to drive changes in corporate performance and governance. Furthermore, the U.S. populace is increasingly receptive to the notion that the impacts of business activity should be capable of constraint or at least be publicized, regardless of where that business activity occurs.⁷¹ If these trends continue, the prospect of a domino effect, wherein high-profile U.S. based businesses advocate for universal standards to ensure a level playing field, is not too difficult to envision. Many capital-exporting countries, including the United States, have strong regulatory controls in place to protect their citizens and environment from exploitation by business activity. Such domestic regulations typically apply only within territorial borders and not the foreign jurisdictions in which their resident corporations operate transnational production chains.⁷² Yet, if “the global rule

⁷⁰ See Philip Alston, *The “Not-a-Cat” Syndrome: Can the International Human Rights Regime Accommodate Non-State Actors?*, in NON-STATE ACTORS AND HUMAN RIGHTS 3, 17 (Philip Alston ed., 2005).

⁷¹ See Abdallah Simaika, Note, *The Value Of Information: Alternatives to Liability in Influencing Corporate Behavior Overseas*, 38 COLUM. J.L. & SOC. PROBS. 321 (2005) (proposing an enhanced disclosure scheme modeled on existing U.S. right-to-know legislation).

⁷² See generally Patrick Macklem, *Corporate Accountability under International Law: The Misguided Quest for Universal Jurisdiction*, 7 INT’L L. F.

of law depends on the domestic rule of law,”⁷³ then it is vital to further encourage the efforts of the home states of the most powerful businesses to advocate high standards of behavior. Given the prevalence of U.S. incorporation for the largest publicly owned international corporations, meaningful change to the systems of disclosure affecting their global operations must examine the role of domestic efforts for improving disclosure efficiency.

1. *U.S. Domiciled Corporations and International Operating Environments*

While there are many international actors, individuals, and NGOs that play a vital role in ensuring the business accountability of corporate entities, jurisdictions within the U.S. still have an obligation to promote the economic vitality of home state businesses. This is ideally achieved through structuring the regulatory environment to provide optimal economic efficiency for corporations while allowing for maximization of positive externalities created through information transparency. By focusing on the effects of home state governmental intervention in the informational regulatory system, regulatory flexibility that would be impossible on the international level becomes viable.⁷⁴ Furthermore, given the great variability among an IC’s operating

DU DROIT INT’L 281, 283 (2005)(Neth.). Certain U.S. labor laws apply beyond the borders of the United States, but only in order to protect American citizens working for American companies abroad. *See* EEOC v. Arabian Am. Oil Co. (*Aramco*), 499 U.S. 244 (1991) (holding that Title VII, which prohibits discrimination with respect to employment on the basis of race, color, religion, sex, or national origin, does not apply extraterritorially). Following the *Aramco* decision, Congress provided for limited extraterritorial application of Title VII of the Civil Rights Act of 1964, 42 U.S.C. § 2000e-17 (2000), to citizens employed abroad by U.S. firms and to foreign firms under the “control” of a U.S. firm. 42 U.S.C. § 2000e-1(c).

⁷³ *See, e.g.,* Anne-Marie Slaughter, *A Liberal Theory of International Law*, 94 AM. SOC’Y INT’L L. PROC. ANN. MEETING 240, 242 (2000) (noting that this is particularly true if one’s goal is to further effective global governance over transnational business activity).

⁷⁴ Prohibitions against barriers to trade are less likely to be invoked under the WTO or NAFTA when interference into foreign corporate activities and international operating agreements are limited. North American Free Trade Agreement, U.S.-Can.-Mex., Dec. 17, 1992, 32 I.L.M. 289 (1993); Agreement on Technical Barriers to Trade, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, Legal Instruments-Results of the Uruguay Round, 1868 U.N.T.S. 120 (1994).

environments, an emphasis on home state legal powers will be central to enforceable solutions. While limits on extrajurisdictional enforceability will be a particular concern in any attempt to aggregate disclosure of global corporate environmental impacts, home state control is a necessary first step. Locating standardization requirements within the domestic legal context offers a simple means for ensuring efficient information delivery and avoids irreconcilable foreign disclosure environments.

2. *Competitive Advantage in the Global Information Economy*

Even though corporations generally prefer to be regulated domestically, international corporations frequently prefer a global standard given their operations across a broad range of jurisdictions.⁷⁵ There are many options available for how to ensure that information regarding the company is relayed to relevant and interested parties.⁷⁶ For example, the globalization of securities regulation and the increasing competition among securities markets demonstrates a strong institutional mechanism for facilitating policies of information standardization. This evolution in securities regulation suggests the rise of an increasingly coordinated global information economy. In light of this, the initial standardization of information can serve as a competitive advantage for those corporations whose home states facilitated information consolidation and efficient delivery.

B. *Paradigm Shift and the Opportunity for Dynamic Change in a Carbon Constrained Age*

The current disclosure obligations of U.S. based ICs provides an important starting point for any inquiry into information standardization. The informational regulatory regime of securities disclosure was first developed in response to the uninformed and speculative investment that was caused by information

⁷⁵ George W. Dent, *For Optional Federal Incorporation*, 35 J. CORP. L. 499 (2010).

⁷⁶ See Barbara A. Boczar, *Avenues For Direct Participation of Transnational Corporations in International Environmental Negotiations*, 3 N.Y.U. ENVTL. L.J. 1 (1994) (examining how voluntary CFC phase-out could enhance corporate "green" images, increase the likelihood of industry compliance, and encourage the leveling of the competitive playing field without legal accountability).

asymmetries⁷⁷ and precipitated the Great Depression.⁷⁸ Likewise, the “Great Recession” has ushered sweeping changes for the regulation of disclosure by public companies.⁷⁹ In addition to financial reform, a second major driver is the growing international collaboration on climate change issues.⁸⁰ Although the 2009 meeting of the parties at the United Nations Framework Convention on Climate Change (UNFCCC) in Copenhagen did not substantially advance dialogue on the creation of a carbon constrained economy,⁸¹ the 2010 and 2011 meetings in Cancun and Durban were modestly successful and climate change will almost certainly remain a key driver of future international efforts. Pertinent to the corporate context is the development of detailed production chain information incentivized through the prospect of acquiring internationally transferable carbon offsets. This expanded data collection due to increased analysis of corporate carbon footprints will provide low-cost opportunities to further expand data acquisition of other environmental impacts.⁸² In this

⁷⁷ Joseph E. Stiglitz, *Regulating Multinational Corporations: Towards Principles of Cross-border Legal Frameworks in a Globalized World: Balancing Rights with Responsibilities*, 23 AM. U. INT’L L. REV. 451, 464 (2008) (noting the role of information asymmetries in the actions of multinational corporations).

⁷⁸ Merritt B. Fox, *Retaining Mandatory Securities Disclosure: Why Issuer Choice Is Not Investor Empowerment*, 85 VA. L. REV. 1335, 1417 (1999) (discussing the role of nonregulation in the creation of precarious market conditions).

⁷⁹ Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, Pub. L. No. 111-203, 124 Stat. 1376 (codified in scattered sections of U.S.C.). See also David M. Herszenhorn & Sheryl Gay Stolberg, *White House and Democrats Join to Press Case on Financial Controls*, N.Y. TIMES, Apr. 14, 2010, at B1.

⁸⁰ Kyla Tienhaara, *A Tale of Two Crises: What the Global Financial Crisis Means for the Global Environmental Crisis*, 20 ENVTL. POL. GOV. 197, 208 (2010).

⁸¹ Andrew C. Revkin, *The Climate Path From Copenhagen Through Cancun*, N.Y. TIMES DOT EARTH BLOG (Apr. 12, 2010), <http://dotearth.blogs.nytimes.com/2010/04/12/the-climate-path-from-copenhagen-through-cancun/?scp=4&sq=climate&st=cse>.

⁸² Since the process of assessing company-wide greenhouse gas (GHG) emissions necessarily leads to a greater understanding of total environmental impacts, the cost of additional data collection for other impacts is likely marginal and the potential for sizable benefits is great. Cf. Robert B. McKinstry Jr. et al., *The New Climate World: Achieving Economic Efficiency in a Federal System for Greenhouse Gas Control Through State Planning Combined with Federal Programs*, 34 N.C. J. INT’L L. & COM. REG. 767, 771–73 (2009) (discussing nuances of implementing cost-effective greenhouse gas reduction plans in the face of uncertain future conditions).

manner, a carbon accounting framework offers a linking system for a more full evaluation of environmental impacts.

C. *Why Global Businesses Adopt Voluntary Obligations*

There are several reasons, both internal and external, why an industry or corporation would voluntarily bind itself with more stringent environmental provisions than the law requires. Internal drivers for voluntary adoption largely lack data on their precise influences but they can include the organizational culture within the business, as when managers or employees lead a general change in the attitude of the company towards environmental issues.⁸³ Alternately, some firms join environmental agreements for their potential to result in indirect economic benefits while innovative solutions to meeting environmental objectives are found.⁸⁴ Among the more important external drivers are the protection of reputational capital and the desire to preempt regulatory threat. Three other external drivers for adopting voluntary obligations are less important, but worth mentioning. First, significant economic advantages can be gained through long-term planning and additional flexibility in implementing compliance requirements,⁸⁵ as well as through direct incentives such as subsidies, grants, or technological assistance.⁸⁶ A second driver for joining voluntary agreements derives from business considerations such as green consumerism,⁸⁷ pressure by clients on

⁸³ Karamanos, *supra* note 17, at 4.

⁸⁴ Efficient technological solutions may be the result of knowledge, the identification of new possibilities for improvements, and/or more efficient use of materials and energy. See Jonathon Hanks, *A Role for Negotiated Environmental Agreements in Developing Countries*, in VOLUNTARY ENVIRONMENTAL AGREEMENTS—PROCESS, PRACTICE AND FUTURE USE 159, 171 (Patrick ten Brink ed., 2002).

⁸⁵ See Dennis D. Hirsch, *Understanding Project XL: Comparative Legal and Policy Analysis*, in ENVIRONMENTAL CONTRACTS: COMPARATIVE APPROACHES TO REGULATORY INNOVATION IN THE UNITED STATES AND EUROPE 115, 116–20 (Eric W. Orts & Kurt Deketelaere eds., 2001). One of the reasons that the American electronics industry has greatly benefited from Project XL is because its frequent and rapid changes in products and processes places a premium on flexibility. In return for excellent environmental performance, the program waived the obligation for permit renewal for each change in process or chemicals.

⁸⁶ Karamanos, *supra* note 18, at 2.

⁸⁷ Werner Antweiler & Kathryn Harrison, *Toxic Release Inventories and Green Consumerism: Empirical Evidence from Canada*, 36 CAN. J. ECON. 495, 499 (2003).

the production chain,⁸⁸ and maintaining a positive environmental image.⁸⁹ A third external driver is the more generalized effect of community pressure.⁹⁰

1. *Benefits of Reputational Capital*

Preserving or creating reputational capital can play a strong role in driving corporate action as corporations impose voluntary obligations to preempt a quickly expanding mandatory disclosure system. For many consumer-facing corporations the value of a strong brand is paramount. Moreover, the reputations of firms have become increasingly susceptible due to technological advancements in communication and decentralized, yet globally available, media.⁹¹ Protest campaigns can take myriad forms to utilize technologies to attack through blogs, spoofs, and e-mail petitions.⁹² The ability to instantaneously obtain and disseminate information concerning business conduct around the globe requires firms to remain wary of the risks confronting the firm's reputational capital.⁹³

2. *Operating Globally Amidst Regulatory Threat*

Globalization has transformed the world's economic landscape.⁹⁴ Voluntary disclosure also provides a vital buffer facilitating efficient operation amidst uncertain global governance. Manufacturing has shifted significantly from industrialized nations to developing nations while production and supply chains increasingly transcend national borders.⁹⁵ Global civil regulation has arisen from the recognition that globalization requires the

⁸⁸ Walmart's sustainability initiative is the most recent iteration of this trend towards green production chains. See Sustainability, WALMART, <http://walmartstores.com/Sustainability/> (last visited July 26, 2012).

⁸⁹ Madhu Khanna & Lisa A. Damon, *EPA's Voluntary 33/50 Program: Impact on Toxic Release and Economic Performance of Firms*, 37 J. ENVTL. ECON. & MGMT. 1, 5-9 (1999).

⁹⁰ A voluntary agreement may be the result of community pressures as well as lobbying by NGOs which demand a response to a particular environmental problem. See Hanks, *supra* note 98.

⁹¹ See Kracher & Martin, *supra* note 60, at 62-64.

⁹² *Id.*

⁹³ *Id.*

⁹⁴ THOMAS L. FRIEDMAN, *THE WORLD IS FLAT: A BRIEF HISTORY OF THE TWENTY-FIRST CENTURY* 48-172 (2007) (describing the "ten forces that flattened the world," global corporations being among them).

⁹⁵ *Id.*

effective regulation of global companies and markets by national legal authorities.⁹⁶

In recognizing both the need to effectively regulate a global company on the national level and the difficulties of doing so, the support for voluntary disclosure emerges from the avoidance of expanding mandatory obligations. A sense of the potential regulatory threats is particularly evident in the context of climate change and domestic attempts in the United States to require mandatory disclosure and compliance.⁹⁷ Avoiding mandatory obligations, corporations increasingly bind themselves in a labyrinthine, albeit voluntary, high transaction-cost quasi-regulatory alternative. The pursuit of regulatory relief has thus become a strong driver of the creation of multitudinous voluntary disclosure obligations in the environmental context.

III. SOLUTIONS THROUGH STANDARDIZATION

Growth in corporate environmental disclosure commonly arises in response to communication failures between corporate and non-corporate actors. A system of disclosure is likely to be primarily motivated by systemic failures regarding the compilation, audit, communication, and processing of information. While CSA is a key driver of the scope and nature of the information disclosed, it plays a minimal role in dictating the manner of information delivery. For example, CSA can easily lead to blanket requests for additional information. A common

⁹⁶ See Vogel, *supra* note 201, at 266.

⁹⁷ These attempts incorporate a vast range of strategies. Notably, they include the use of SEC laws governing shareholder proposals, the New York Martin Act, Federal tort law, and regulatory efforts under EPA's existing powers. See CAL. PUB. EMPS.' RET. SYS. ET AL., PETITION FOR INTERPRETIVE GUIDANCE ON CLIMATE RISK DISCLOSURE (2007), available at <http://www.sec.gov/rules/petitions/2007/petn4-547.pdf>; STEVEN J. MILLOY & THOMAS J. BORELLI, FREE ENTER. ACTION FUND, PETITION FOR INTERPRETIVE GUIDANCE ON PUBLIC STATEMENTS CONCERNING GLOBAL WARMING AND OTHER ENVIRONMENTAL ISSUES (2008), available at <http://www.sec.gov/rules/petitions/2008/petn4-563.pdf> (describing attempts to use shareholder proposals to mandate reporting of risks associated with climate change). See also N.Y. EXEC. LAW § 63(15) (Consol. 2011) (New York Martin Act); Connecticut v. Am. Elec. Power, 582 F.3d 309 (2d Cir. 2009); Comer v. Murphy Oil, 585 F.3d 855, 859–60 (5th Cir. 2009); Native Village of Kivalina v. Exxon Mobil, 663 F.Supp.2d 863 (N.D. Cal. 2009); U.S. Env'tl. Prot. Agency, Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act (last updated June 26, 2012), <http://www.epa.gov/climatechange/endangerment>.

response to this inquiry would be to deliver high volume and low quality information. Standardization in the corporate environmental reporting context requires an assessment of the impact of information production, delivery, and consumption, and its verifiability with the actual state of corporate environmental impacts. Standardization of the information released by ICs requires independent standard-setting organizations (SSOs) in order to maintain standard integrity and provide continual improvements on information collection and delivery.

A. *From Systemic Failure to Opportunity*

The twin drivers of financial and greenhouse gas reform indicate the likely future of environmental disclosure. These drivers will likely usher changes in corporate governance and corporate monitoring that come at an opportune time for the environmental movement given the thorough failure of transnational corporations to ensure adequate environmental management.⁹⁸ However, increasing the regulatory burden with new and disparate requirements is not necessarily the solution. Already, the sheer breadth of obligations has created a vast corporate compliance and reporting industry, consisting of lawyers, auditors, ethics officers, as well as numerous other professionals. By using information technologies to promote transparency and standardized corporate communication among managers, shareholders, consumers, and other stakeholders, a system reform offers distinct net efficiency benefits.

The determination of economically optimal conditions for the standardization of information collection, processing, and reporting for the corporation, as well as its efficient interpretation by stakeholders, has not been undertaken.⁹⁹ An improvement of

⁹⁸ This broken system is particularly evident in light of environmental management failures such as the 2010 BP oil spill in the Gulf of Mexico, one of the worst environmental disasters in U.S. history. See Tom Zeller Jr., *Estimates Suggest that Spill is Biggest in U.S. History*, N.Y. TIMES, May 27, 2010, at A15.

⁹⁹ Although information regulation has been an area of wide academic concern, evaluations of the field have not thoroughly examined the role of standardization. See, e.g., Katherine Renshaw, Note, *Sounding Alarms: Does Informational Regulation Help or Hinder Environmentalism?*, 14 N.Y.U. ENVTL. L.J. 654 (2006). See also Cass R. Sunstein, *Informational Regulation and Informational Standing: Akins and Beyond*, 147 U. PA. L. REV. 613 (1999) (detailing the importance of information regulation, but failing to examine standardization).

the information economy affecting the flow of environmental data offers distinct benefits to both corporations and their stakeholders. In the face of broadening of reporting obligations, standardization can increase the availability of information while facilitating the ease of processing.

Stakeholders are confronted by two distinct challenges to utilizing disclosed corporate information. The first is a deficiency in information quality. The second is the burdensome transaction cost for stakeholders to interpret such information in a market flooded with nonstandardized reporting formats. Ironically, the inefficiency of the current market, awash with warring standards, nonetheless reflects the partial success of the CSA movement. In response to its prolonged efforts, U.S. corporations have generally provided increasing amounts and types of information. This information, however, is collected, interpreted, and distributed through a rapidly expanding variety of tools, models, and venues. CSA advocates must now overcome an initial phase of disorganized growth in order to avoid consumer confusion and ultimate dismissal, as costs of information production outweigh corporate benefits.¹⁰⁰ As environmental values become more mainstream, corporations manipulate and selectively use data to “greenwash.” This low quality information, through attractive delivery and sheer quantity, can easily thwart accurate interpretation or require unrealistically high processing costs for effective utilization. Inversely, however, uniformity must not come at the expense of informational integrity, such as when pandering to the least common denominator is necessary in order to gain broader acceptance of collection and reporting standards.¹⁰¹ Ultimately, the main goal of uniformity is to ensure meaningful comparisons among corporations.¹⁰²

¹⁰⁰ An analogous situation has arisen in the context of compliance with Sarbanes-Oxley where a 2006 survey of financial executives found that “85 percent of respondents still don’t believe that the benefits of compliance outweigh the costs, even though they recognize that investor confidence has risen.” Laurie Brannen, *Upfront: Price of Sarbanes-Oxley Compliance Declines*, BUSINESS FINANCE (May 1, 2006), <http://businessfinancemag.com/article/upfront-price-sarbanes-oxley-compliance-declines-0501>.

¹⁰¹ See Richard A. Rinkema, *Environmental Agreements, Non-State Actors, and the Kyoto Protocol: A “Third Way” for International Climate Action?*, 24 U. PA. J. INT’L ECON. L. 729, 753 (2003).

¹⁰² For a discussion of the market’s need for accurate reporting regarding CSA practices and the incommensurability of current reporting methods, see David Monsma & Timothy Olson, *Muddling Through Counterfactual*

B. *Factors Favoring Standard Formation*

There are four factors that must be assessed in order to determine the potential efficiency gains of standardization and aggregation of environmental disclosures to a centralized entity. While their full application to the range of ICs operating in the globalized marketplace is an empirical question beyond the scope of this Note, the presentation and discussion of these criteria will provide a foundation in the development of a more thorough evaluative framework.

First, there is pervasive definitional uncertainty regarding what constitutes an environmental disclosure. Due to the breadth of activities that fall under the CSA umbrella, one recurring definitional dilemma results from the complicated relationship between environmental disclosures and other non-financial CSA disclosures.¹⁰³ Second, corporate data dumping to satisfy disclosure obligations allows corporations to limit liability while obscuring material facts in excessive amounts of information regarding corporate practices.¹⁰⁴ Third, and at the other extreme, corporate silence might prevail and consumers or investors may be incapable of making informed decisions about the environmental practices of the company since such content falls outside the ambit of most securities regulations and state disclosure laws.¹⁰⁵ Fourth, corporate greenwashing allows those companies that falsely, yet effectively, portray an image of environmental responsibility to obtain undeserved benefits, while honestly reporting companies will encounter greater costs and difficulties in establishing the authenticity of their practices.¹⁰⁶ Quite simply, the more prevalent greenwashing becomes, the greater the need for disclosure.

Materiality and Divergent Disclosure: The Necessary Search for a Duty to Disclose Material Non-Financial Information, 26 STAN. ENVTL. L.J. 137, 159–61 (2007).

¹⁰³ Pohle & Hittner, *supra* note 123, at 8–9.

¹⁰⁴ See generally Troy A. Paredes, *Blinded by the Light: Information Overload and its Consequences for Securities Regulation*, 81 WASH. U.L.Q. 417 (2003) (discussing dangers of informational overload arising from federal securities regulation's mandatory disclosure requirements)

¹⁰⁵ See Williams, *supra* note 2, at 1291–92.

¹⁰⁶ William S. Laufer, *Social Accountability and Corporate Greenwashing*, 43 J. BUS. ETHICS 253, 255–60 (2003); Thomas P. Lyon & John W. Maxwell, *Greenwash: Corporate Environmental Disclosure Under Threat of Audit*, 20 J. ECON. & MGMT. STRATEGY 3 (2011), available at <http://www.bus.indiana.edu/riharbau/RePEc/iuk/wpaper/bepp2006-07-lyon-maxwell.pdf>.

Taken together, the factors affecting standardization indicate what must be considered in any new approach to standardization and aggregation of voluntary corporate disclosures. As previously discussed, such transparency and accountability are necessary to counteract the waning governmental power due to the decentralization of authority in light of the globalized corporate presence. Ultimately, any global solution, particularly one grounded in domestic law, requires that its drafters take into account the concerns of the businesses, developing countries, and other foreign governments upon whose cooperation such initiatives depend. An effective solution to the information regulation system must simultaneously ensure that the costs of monitoring and enforcement are minimized. The following sections will provide suggestions for the development of an integrated mandatory disclosure system.

C. Centralized Information Management Process and Formation

1. Structural Considerations for Optimal Aggregation of Information

As examined in Part II, there are significant drivers expanding disclosure of environmental information. The financial and environmental crises plaguing society offer a unique period in history to create transparency in corporate actions. In particular, a carbon regime will require a regulated corporation to reorganize its information on its environmental impact. Such a change also offers a unique opportunity to ensure that corporate environmental information obfuscation in non-carbon sectors is also reduced.

A first order question must be answered to determine the nature of the entity responsible for aggregating information. Four basic options are available. Self-disclosure could occur through a corporation controlled apparatus such as a website. Disclosure could be made directly to stakeholders of the corporation, either those with a direct financial interest or in a manner construed more broadly. Alternately, it could be transmitted to a third party SSO. Finally, it can be made to a governmental entity.

In crafting a system to govern the content of the information, the emphasis should be on standardization and aggregation of information.¹⁰⁷ This ensures centralized processing and easy

¹⁰⁷ See Larry Catá Backer, *From Moral Obligation to International Law*:

availability. One option would be to follow the example of recent changes to American securities law under the Sarbanes-Oxley Act.¹⁰⁸ There, publicly held companies were required to disclose whether they had adopted an ethics code for senior financial officers.¹⁰⁹ The object was to create a legal framework which provided stakeholders with information sufficient to allow them to negotiate the nature of such codes.¹¹⁰ The state chose the objective (i.e. ethics codes), but the entities affected were not required to adopt them, just to report their choice to the market, and private actors were free to use the information as they wished. Other states, or state connected entities, have adopted similar “if not why not” approaches to disclosure.¹¹¹ Likewise, the U.S. could choose the objectives—full description and updates of voluntary corporate agreements—and leave it to the entities to report in detail or to explain why they do not maintain such voluntary commitments. But while such an approach would aggregate information, it would fail to standardize it and thus is not a preferred solution.

Ultimately, regulating disclosure at the global level using domestic law will have superior substantive value. An ideal mechanism would monitor whether information was submitted to a centralized body. Nonetheless it is necessary to determine the kind of information to be gathered, the form it will take, the persons or institutions receiving that information, and what action might be taken based on the information.¹¹² Among these, control over the

Disclosure Systems, Markets and the Regulation of Multinational Corporations, 39 GEO. J. INT'L L. 591, 638–45 (2008).

¹⁰⁸ Sarbanes-Oxley Act of 2002 § 404, 15 U.S.C. § 7262 (2006).

¹⁰⁹ *Id.* § 406.

¹¹⁰ See Larry Catá Backer, *The Sarbanes-Oxley Act: Federalizing Norms for Officer, Lawyer and Accountant Behavior*, 76 ST. JOHN'S L. REV. 897, 920–22 (2002).

¹¹¹ For example, effective “if not, why not” reporting practices may involve: “identifying the recommendations the company has not followed; explaining why the company has not followed the relevant recommendation; explaining how its practices accord with the ‘spirit’ of the relevant principle, that the company understands the relevant issues, and has considered the impact of its alternative approach.” ASX CORPORATE GOVERNANCE COUNCIL, CORPORATE GOVERNANCE PRINCIPLES AND RECOMMENDATIONS 6 (2d ed. 2007) (internal formatting omitted), available at <http://asx.ice4.interactiveinvestor.com.au/ASX0701/Corporate%20Governance%20Principles/EN/body.aspx?z=1&p=1&v=1&uid=>.

¹¹² See Larry Catá Backer, *Global Panopticism: States, Corporations, and the Governance Effects of Monitoring Regimes*, 15 IND. J. GLOBAL LEGAL STUD. 101, 141–58 (2008); see also Backer, *supra* note 10708, at 621–38.

framework of information gathering will significantly impact its future development.¹¹³ Additional decisions include: what sort of information is important enough to gather; whether and which stakeholders will be given rights to the information gathered; and if authority to punish failures to gather or distribute information will be available in such forms as civil suits or delisting from national exchanges. Such determinations must necessarily inform a domestic framework.

2. *Structural Considerations for Standardization of Disclosed Information*

Once the decision of how best to aggregate information is made, it is necessary to determine the standardization process itself. For the process of standard formation, governmental and non-governmental standard-setting organizations (SSOs) play a central role in the global economy by updating and regulating the operation of standards in a variety of fields. By facilitating standard formation, SSOs support technology interoperability, commercialization, and downstream competition.¹¹⁴ While SSOs typically play a vital role in guaranteeing the standardization of goods and services, their potential role in standardizing information distribution, particularly disclosure obligations, has not received a thorough assessment.

Organizations performing these functions can be found at all levels of government and industry. At the international level, the International Organization for Standardization (ISO) is a well-known entity whose environmental management standards have provided crucial guidance for corporations seeking to monitor and assess their environmental performance.¹¹⁵ At the domestic level, the American National Standards Institute promotes model standards for all U.S. businesses and serves as the domestic link to

¹¹³ See, e.g., Michael P. Vandenbergh, *The New Wal-Mart Effect: The Role Of Private Contracting in Global Governance*, 54 UCLA L. REV. 913 (2007) (analyzing the importance of information transmission regarding the nature, content, and effect of voluntary agreements).

¹¹⁴ Mark A. Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 CALIF. L. REV. 1889, 1896–98 (2002); George S. Cary et al., *Antitrust Implications of Abuse of Standard-Setting*, 15 GEO. MASON L. REV. 1241, 1241 (2008).

¹¹⁵ See, e.g., Donald A. Carr & William L. Thomas, *Devising a Compliance Strategy Under the ISO 14000 International Environmental Management Standards*, 15 PACE ENVTL. L. REV. 85, 151–52 (1997).

the ISO. Other important participants include industry-level standard organizations.¹¹⁶ Through these entities, industry participants seeking to market harmonious goods may establish industry-wide compatibility with given technologies in a process known as “de jure standardization.”¹¹⁷ The most extensive scholarship in the field of standard-setting has accordingly taken place in the context of highly lucrative intellectual property in an attempt to resolve the confounding inefficiencies that occur when conflicting, although substitutable, technologies are available to consumers. Nonetheless, this rich scholarship can be applied to the analogous situation of disclosure mechanisms and the consumer-investor.

Despite the clear benefit of SSOs in at least some settings, they nonetheless pose a variety of potential threats. In particular, while their creation may avoid the inefficiencies of excessive competition for substitutable good or services, their continued operation can potentially stifle the benefits of competitive development by creating impediments to innovation. A balance is thus needed between competitor collaboration and deleterious scheming.¹¹⁸ Ultimately, given the contemporary importance of standardization, SSOs are generally favorable despite the potential risks.¹¹⁹ Technological, functional, and safety-related standards are ubiquitous in the modern world and the interoperability facilitated by standardization benefits society from both producer and consumer economies of scale.¹²⁰ Standardization becomes increasingly advantageous in proportion to the beneficial network effects.¹²¹ If the effects are sufficiently pronounced, the benefits of

¹¹⁶ These organizations are far more plentiful in technology fields. For example, the JEDEC Solid State Technology Association engages in standardization for the microelectronics industry. JEDEC, <http://www.jedec.org> (last visited July 26, 2012).

¹¹⁷ Timothy Simcoe, *Delay and De Jure Standardization: Exploring the Slowdown in Internet Standards Development*, in STANDARDS AND PUBLIC POLICY 260 (Shane Greenstein & Victor Stango eds., 2007).

¹¹⁸ See DENNIS W. CARLTON & JEFFREY M. PERLOFF, MODERN INDUSTRIAL ORGANIZATION 122 (2005).

¹¹⁹ See Lemley, *supra* note 114, at 1892 (noting that without standardization there wouldn't be a modern economy).

¹²⁰ *Id.* at 1896–98.

¹²¹ Direct network effects occur when the utility enjoyed by a consumer increases in response to an increase in the number of other consumers and is a positive externality of consumption. Indirect network effects occur when an increase in consumption spurs creation of complementary products to form a

adhering to a single standard should be determinative of its use, but the effect of compatibility on firm profitability may also influence the decision to adopt a single standard.¹²²

a. *Standardization of Information Markets is Inexpensive*

Optimality in the context of information regulation must be established. For this process, the economic concept of qualitative superiority is useful. It defines the best standard as that delivering the best product at the lowest cost.¹²³ In the information disclosure context, standard-setting bodies allow the benefit of the same reporting system to be incorporated into a standard, lowering costs of production, transmission, and analysis for all parties.

The standards necessary for information disclosure are inexpensive and serve as ideal forums for standard-setting because the cost of innovation to produce the standard is far less than that for technological advancements. Thus, the benefits of closed standards can be paired with the low cost function of open standards. Any usage price would only require sufficient *ex post* return to the standard creator to compensate it for the expense, opportunity cost, and risk involved in *ex ante* innovation—which in the context of information regulation would be minimal. The prospect of NGO participation makes the question of standard creation cost even less significant. Ultimately, the only significant factor is the implementation of a configuration that allows standard innovation in the long run if royalty-based compensation to the creator is not present.

b. *Optimality of De Jure Standardization*

Once the best standard is available at the lowest total cost, it must be determined what organization is best placed to make a determination of superiority. One option for standardization is “de facto” standardization in which producers of different standards compete for supremacy in the open market and thus allow

positive feedback loop.

¹²² See Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 AM. ECON. REV. 424, 425, 434–35 (1985).

¹²³ See CARLTON & PERLOFF, *supra* note 118, at 70 (connecting the concept of qualitative superiority with the maximization of consumer surplus, i.e., “the amount above the price paid that a consumer would willingly spend, if necessary, to consume the units purchased”).

consumers to select the optimal one.¹²⁴ Second, competitors can act together to define an optimal standard.¹²⁵ Third, the government can unilaterally establish a standard—although it is important to note that government intervention in many kinds of standard-setting processes is undesirable.¹²⁶

De facto standardization has an intuitive appeal given its facilitation of price competition and the concern that standardization through producer collaboration will result in negative effects on innovation and consumer welfare.¹²⁷ Any claim regarding inefficient competition as applied to the development of standards is further undermined by the clear demonstration that open competition has demonstrated allocative efficiency on numerous occasions in recent history.¹²⁸ Successful de facto standardization, however, has primarily occurred in markets limited to two primary choices and where significant capital investments encourage path dependency.

Therefore, despite the visceral instinct of free market advocates to avoid de jure standardization, this reflexive approach is misplaced. In addition to policy reasons for the operation of SSOs in at least some instances, there are characteristics that inexorably tip certain information markets toward monopolization and potentially stymie the prevalence of superior products in open competition.¹²⁹ Other confounding factors in open competition, such as the path dependence mentioned previously, provide scenarios in which SSOs operating *ex ante* can ensure conditions

¹²⁴ See Lemley, *supra* note 114, at 1899.

¹²⁵ *Id.* at 1898.

¹²⁶ See OZ SHY, *THE ECONOMICS OF NETWORK INDUSTRIES* 6 (2001).

¹²⁷ The claim by collaborating competitors that competition would be ruinous has been consistently rejected by the Supreme Court. See, e.g., *United States v. Trans-Missouri Freight Ass'n*, 166 U.S. 290, 339 (1897) (rejecting the defendants' claim that the cartel was necessary to avoid ruinous competition).

¹²⁸ Note the recent standards war between HD-DVD and Blu-ray, and the earlier, though equally fierce competition between Microsoft and rival operating systems, VHS and Beta, or even QWERTY and its rivals. Direct marketing to consumers, based on price and quality, were instrumental in determining the ultimate victor.

¹²⁹ See Katz & Shapiro, *supra* note 122, at 437–39 (discussing how firms' profit incentives are not always aligned with consumer preferences in determining when to move towards compatibility); Joseph Farrell & Garth Saloner, *Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation*, 76 AM. ECON. REV. 940, 940 (1986) (arguing that excess inertia may lead a market not to adopt a novel technology).

superior to those obtained through open competition and de facto standardization.¹³⁰ “First mover advantage” can have similar effects that defy product primacy, creating yet another context where consumers are incapable of reliably choosing optimal standards.¹³¹

Avoiding market inefficiencies is not the only benefit of the SSOs. Universal adoption avoids wasting capital that would have been devoted to commercializing doomed standards. A standardized reporting and disclosure regime will also avoid a “winner take all” approach to setting protocols and thereby limit excessive rates of entry into the information regulation market.¹³² Too many available standards can also yield stagnancy as consumers are hesitant to dedicate training to understand and utilize tools that could potentially be rendered defunct by the subsequent success of a rival standard. Furthermore, SSOs make the emergence of open, non-proprietary standards possible, something inconceivable on an open market basis.

Accordingly, de jure standardization implemented by an SSO is clearly preferable in at least some instances and offers the superior option in the voluntary environmental information context. Although SSOs are typically non-governmental, government-coordinated SSOs are viable in order to limit collusion between horizontal competitors. It is this danger of collusion that has typically been addressed by antitrust oversight to prevent disproportionate harm to consumers. Unfortunately, information regulation has historically not fallen under the jurisdiction of governmental antitrust efforts and thus lacks this historic counterbalance. Despite this potential weakness, the SSO process is capable of yielding an optimal standard while avoiding path dependence, consumer myopia, and inefficient investments.

¹³⁰ *Id.* at 943, 954.

¹³¹ *Id.* at 943.

¹³² *See, e.g.,* Urs Fischbacher & Christian Thöni, *Excess Entry in an Experimental Winner-Take-All Market*, 67 J. ECON. BEHAV. & ORG. 150, 150, 162 (2008) (highlighting how “winner-take-all” markets lead to inefficiently high rates of entry).

3. *Basis of Government Authority for a Standardized Disclosure System*

a. *Administrative Reform*

Once optimal aggregation and standardization formats have been determined, it is necessary to ensure that the authority exists for effective implementation. Unfortunately, few agencies currently possess sufficient statutory authority to drastically broaden disclosure by publicly owned ICs. Although not preferable, the SEC is empowered to create administrative regulations that require compilation and dissemination of such securities reports that it “prescribes as necessary or appropriate in the public interest.”¹³³ While the scope of this regulatory power is broad, it focuses on public disclosure of information related to securities public offerings.¹³⁴ Academics have justified broadening the materiality requirement under the idea that because social information is materially relevant to the social investment sector, it is thus sufficiently material to trigger disclosure obligations. There has been little attempt by the SEC to act on these grounds,¹³⁵ however, and prior courts have demonstrated a very deferential level of review.¹³⁶ Nevertheless, if it chose to broaden its materiality requirement in a manner similar to its recent guidance regarding the disclosure of climate change concerns, the SEC likely possesses adequate authority to create disclosure obligations sufficient to require the reporting of all voluntary agreements with which a corporation is engaged.¹³⁷

¹³³ Securities Exchange Act of 1934, 15 U.S.C. § 78q(a)(1) (2006).

¹³⁴ See generally SEC General Statement and Statutory Authority, 17 C.F.R. § 200.1 (2002).

¹³⁵ See Cynthia A. Williams, *The Securities Exchange Commission and Corporate Social Transparency*, 112 HARV. L. REV. 1197, 1206 (1999) (providing an in-depth analysis of the opportunity and ability of the SEC to promulgate regulations mandating reporting of social liabilities).

¹³⁶ See, e.g., *Natural Res. Def. Council, Inc. v. SEC*, 606 F. 2d 1031, 1052–53 (D.C. Cir. 1979) (adopting a narrow standard of review for SEC determinations whether to promulgate certain rules requiring social information disclosure for ICs).

¹³⁷ See, e.g., Commission Guidance Regarding Disclosure Related to Climate Change, 75 Fed. Reg. 6290 (Feb. 8, 2010); David Monsma & John Buckley, *Non-Financial Corporate Performance: The Material Edges of Social and Environmental Disclosure*, 11 U. BALT. J. ENVTL. L. 151, 188–92 (2003) (analyzing the conditions under which voluntary environmental commitments could be implicated in SEC reporting requirements).

b. *Congressional Action*

Congressional action would be preferred as a means of ensuring that the type, quantity, and manner of information is disclosed and monitored sufficiently well to promote compliance. Additionally, since the SEC might not be ideally situated to monitor and administer an expanded reporting system, care should be put into ensuring that the entity responsible is institutionally competent. Although the Commerce Clause would clearly provide Congress with the authority to expand disclosure obligations,¹³⁸ there is some concern, given the broad and international scope of the proposed reporting requirements, that they could potentially raise questions of excessive extrajurisdictional control. Any legislation along these lines must clearly avoid violating NAFTA or the WTO and refrain from infringing on the sovereignty of other nations.

4. *Opportunity for Internationalization of the Disclosure System*

Any adopted approach should maintain sufficient flexibility so that it can be enlarged to accommodate any future globalization of disclosure frameworks. Conceivably these strategies could be adopted at the international level—through a well-represented international organization, functioning as an SSO (either public or private, similar to the Organization for Economic Co-operation and Development,¹³⁹ the International Organization of Securities Commissions,¹⁴⁰ or some other entity) with the necessary legitimacy within the global community to develop and maintain standards. Although this would have many benefits and ensure

¹³⁸ U.S. CONST. art. I, § 8, cl. 18. See *Gonzales v. Raich*, 545 U.S. 1, 32-33 (2005) (upholding a ban by Congress on marijuana grown and used solely intrastate due to the potential effects on the national market). This case upholds the broad Commerce Clause powers established in *Wickard v. Filburn*, 317 U.S. 111, 118-19, 127-28 (1942), which found Congressional legislation over agriculture grown and sold entirely intrastate to be Constitutional under the Commerce Clause.

¹³⁹ For general information about the Organisation for Economic Co-operation and Development (OECD), see *About the Organisation for Economic Co-operation and Development*, OECD, http://www.oecd.org/pages/0,3417,en_36734052_36734103_1_1_1_1_1,00.html (last visited July 26, 2012).

¹⁴⁰ For general information about the International Organization of Securities Commissions (IOSCO), see *The International Organization of Securities Commissions: General Information*, OICV-IOSCO, <http://www.iosco.org/about/> (last visited April 6, 2011).

international participation, the weaknesses of such an approach might include the creation of an excessively complex bureaucracy at the international level and too great a devolution of power.¹⁴¹ There is also the danger that what might start as a simple system of disclosure rules could become as byzantine as the modern financial disclosure rules. Furthermore, it is important to remember that most securities regulatory bodies do not have much experience with disclosure of non-financial information, though some have sought to expand the role of the SEC in this regard.¹⁴² Balancing the strength and effectiveness of a domestically-authorized system with the capacity to be similarly authorized in the corporate legal codes of other countries represents an area of needed future research.

CONCLUSION

Regardless of the ultimate scope and manner of the disclosure system, those seeking to obtain the benefits of an information regulatory regime should include broad accounting methods that go beyond simple tabulation of climate change emissions in their systems. The present paradigm shift towards a carbon-constrained economy offers a unique period to reconceptualize environmental risks in the context of corporate activity. In the interest of expanding net social benefits derived from information efficiency through disclosure standardization, this Note recommends expedient action towards the formation of an integrative disclosure system authorized under law and standardized through the oversight and management of an SSO.

¹⁴¹ Thus, greatly deterring corporations from entering voluntary agreements that require added disclosure.

¹⁴² See, e.g., Eric Engle, *What You Don't Know Can Hurt You: Human Rights, Shareholder Activism and SEC Reporting Requirements*, 57 SYRACUSE L. REV. 63, 84–87 (2006) (“Currently, the SEC does not generally require disclosure of compliance with foreign or international human rights or labor laws, though that may change as an increasing number of investors find such information relevant to their investment decisions due to the risks of tort liability, insurance costs or nationalization of foreign held corporate assets.”); see also Rachel Cherington, *Securities Laws and Corporate Social Responsibility: Toward an Expanded Use of Rule 10b-5*, 25 U. PA. J. INT’L ECON. L. 1439, 1441–42 (2004); Williams, *supra* note 135, at 1201–03.