Is there a cost to joining a “free” voluntary program? The role of stakeholder scrutiny

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Several studies have examined the effectiveness of voluntary social and environmental programs with lax entry requirements. These studies have failed to show that companies with superior environmental practices or working conditions are more likely to participate than those with inferior practices. This is the first study of such a program to consider the role of stakeholder scrutiny in deterring companies from participating when their past practices are not in line with the program’s ideals. Using data on participation in the United Nations Global Compact we find that companies lacking environmental reporting capabilities and whose prior environmental disclosures were misleading are deterred from joining. We find evidence that companies with misleading disclosures are especially deterred when the effect of stakeholder scrutiny attracted upon joining is stronger, either because the company had low visibility to stakeholders prior to joining or because they are headquartered in countries with strong norms of corporate transparency.

INTRODUCTION

Companies are increasingly being held accountable for their suppliers’ working conditions and environmental management practices. Suppliers that mismanage these issues pose substantial reputational and financial risks to their buyers (e.g., Kleindorfer and Saad, 2005; Roberts, 2003). For example, Apple’s reputation suffered after unsafe and inhumane working conditions were exposed at Foxconn, one of their key suppliers. Also, many clothing retailers that sourced from Bangladesh suppliers were criticized following the collapse of a Bangladesh garment factory that resulted in more than 1,100 deaths.¹

To mitigate these risks, many companies have sought out suppliers that have voluntarily joined programs that prescribe best practices for managing working conditions and environmental impacts (e.g., King, Lenox, and Terlaak, 2005; Hiscox, Schwartz, and Toffel, 2009). For instance, Unilever began sourcing from suppliers that had voluntarily adopted environmental certifications after the company was criticized for using suppliers contributing to deforestation.²

Voluntary social and environmental programs vary widely according to their participation requirements. Programs with strict requirements often mandate third-party certification that entry requirements were met as well as continued monitoring that the requirements continue to be met. Prior research has shown that participants of strict programs, such as ISO 14001 (an environmental management certification standard), can serve as a credible means to identify companies with superior social and environmental practices (e.g., Khanna and Damon, 1999; Levine and Toffel, 2010; Terlaak and King, 2006). However, meeting these requirements can be costly and many suppliers have refused to participate (Darnall and Edwards, 2006).

Voluntary programs with lax entry requirements and little to no monitoring (i.e. “weak programs”) have become a popular low-cost alternative for many companies. Weak programs are often created to foster learning and are meant to encourage the participation of all companies, not just those that already have superior practices. Thus, it is not surprising that weak programs attract companies that have poor social and environmental records (e.g., King and Lenox, 2000; Lenox and Nash, 2003; Rivera and de Leon, 2004). Weak programs also attract free riders, companies that join symbolically without any intention of meeting the program’s goals. Because the lack of progress made by free riders dilutes any improvements made by other participants, research has failed to show that participants in weak programs improve more so than non-participants (e.g., King and Lenox, 2000; Rivera and de Leon, 2004). As such, existing research has failed to demonstrate that weak programs can serve as a credible means to identify suppliers or business partners adequately managing these issues.

Activists and the media have been highly critical of symbolic social and environmental practices, such as symbolic participation in a weak voluntary program. Activists fear that stakeholders may incorrectly assume that a free rider is truly committed to the program’s goals and mistakenly decide to patronize the free rider based on that misleadingly positive perception. To correct that false perception some activists engage in “name and shame” campaigns in which they criticize participants they suspect of

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3 Lyon and Maxwell (2007) suggest that prior evaluations may fail to find that participants improve more so than non-participants because non-participants may also benefit from information disseminated by the program.
free-riding. Previous research has shown that stakeholders do not respond positively to companies that advertise their corporate social responsibility activities when the company’s reputation is not in line with those actions (e.g., Servaes and Tamayo, 2013). It has been suggested that this criticism and lack of reward may prevent companies from disclosing information on or calling attention to their socially responsible endeavors (Lyon and Maxwell, 2010). In this article, we empirically examine whether companies anticipate this threat of scrutiny and skepticism and are deterred from participating when their past actions are not in line with their commitment to the voluntary program.

We examine what we refer to as “commit-and-report” programs. Commit-and-report programs seek to strike a balance between strict and weak programs. They allow companies to participate irrespective of their existing practices while seeking to encourage accountability by requiring participants to publicly commit to the program’s objectives and to periodically publicly report progress on achieving the objectives. One objective that is common to all commit-and-report programs is that participants must be transparent regarding their impacts as they relate to the program’s social or environmental principles. Commit-and-report programs publicly list participant names, which enables participants to immediately gain recognition, but also enables stakeholders to scrutinize the authenticity of participants’ commitment (Rasche, 2009). The commit-and-report program design has been a common choice among program administrators. Well-known commit-and-report programs include the chemical industry’s Responsible Care, the alpine ski industry’s Sustainable Slopes, the United Nations’ Global Compact, and the U.S. Environmental Protection Agency’s WasteWise. This is a similar classification to Darnall and Carmin’s (2005) “voluntary reporting programs,” which they found to account for over one third of voluntary environmental programs in the United States.

We hypothesize that companies will be less likely to join a commit-and-report program when their past reporting behavior calls into question their genuine commitment to transparency. Specifically,

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4 At the time of its inception Responsible Care lacked meaningful entry requirements.
5 Darnall and Carmin (2005) classify “voluntary reporting programs” as programs that require participants to issue a basic statement expressing their commitment to the program’s environmental goals and require participants to submit periodic progress reports. However, their classification is not limited to programs that publicly list participants’ names.
we hypothesize that companies lacking capabilities to meet the program’s reporting requirements and companies whose past reports were misleading will be less likely to join. Such companies would be especially prone to attract stakeholder criticism and skepticism regarding their ability or willingness to adhere to the program requirement to disclose an accurate update on activities to implement the program’s principles. We also hypothesize that three factors enhance the impact of stakeholder scrutiny and further deter companies with past misleading reports from participating. First, the effect of scrutiny imposed on companies upon joining will have an especially pronounced effect on companies that had previously been less visible to their stakeholders. Second, companies will face greater scrutiny upon joining when they are headquartered in countries with many activists. Finally, companies headquartered in countries with stronger norms of corporate transparency will face stronger criticism. These factors bolster the impact of stakeholder scrutiny and discourage the participation of companies that risk appearing as if they joined symbolically.

Stakeholder criticism of participation in voluntary programs may deter companies from joining symbolically or it may deter companies from joining with the intent to learn and improve, but are wary of being criticized for their past behavior. Regardless, understanding when stakeholders are able to deter companies that are not transparent from participating in commit-and-report programs is useful. Under these conditions buyers can use participation in commit-and-report program as a means to identify suppliers that are already willing to be transparent regarding their social or environmental impacts. Companies can benefit from sourcing from transparent suppliers in two ways. First, transparency can lead companies to make social or environmental improvements (e.g., Doshi, Dowell, and Toffel, 2013; Konar and Cohen, 1997; Jin and Leslie, 2003; Tietenberg, 1998), which can lower the risk of reputational and financial harm to buyers. Disclosures that reveal inferior performance can increase scrutiny (Hamilton, 1995) and further evidence suggests that this increased scrutiny prompts companies to make improvements (e.g., Jin and Leslie, 2003). Second, supplier transparency enables companies to better assess their risks and identify improvement opportunities (Jira and Toffel, 2013).
We test our hypotheses in the context of the United Nations Global Compact, a renowned commit-and-report program that has attracted over 10,000 participants from 130 countries. We find evidence that companies that lack existing reporting capabilities and companies that disclosed misleading information are less likely to join. We also find evidence for two of the three hypothesized attributes that enhance the impact of stakeholder scrutiny (visibility and strong corporate transparency norms). We conclude by discussing several managerial and policy implications of these findings.

RELATED LITERATURE

Our research builds on literature that examines why organizations adopt voluntary programs and the literature that explores the critical response some stakeholders have had to corporate social responsibility initiatives.

Adoption of voluntary programs

A primary reason companies participate in voluntary programs is to draw attention to their commitment to the program’s ideals and to receive positive benefits from this recognition. Many stakeholders want to invest in, partner with, or work for companies that are committed to managing their working conditions or environmental practices that are evoked by voluntary programs. For example, companies that are recognized for their superior performance in these areas may attract and retain more productive workers (Brekke and Nyborg, 2008; Grolleau et al., 2011), they may experience reduced delays in government permitting (Decker, 2003), or they may win new business from concerned consumers (Arora and Cason, 1995). Also, some buyers give preferential consideration to suppliers that have adopted voluntary programs (e.g., Albuquerque, Bronnenberg, and Corbett, 2007; Christmann and Taylor, 2001; Delmas and Montiel, 2009; King, Lenox, and Terlaak, 2005). Companies can receive these benefits by signaling to their stakeholders that they have aligned their behaviors with the program’s ideals.

Among the hundreds of voluntary programs that have emerged some provide a particularly effective signal of a participant’s commitment (Darnall and Carmin, 2005), such as those that feature relatively stringent requirements (e.g., Lenox and Nash, 2003). Strict programs, such as ISO 14001 (environmental management) and SA8000 (working conditions), have been found to disproportionately attract companies that already possess superior business practices in these areas (Khanna and Damon, 1999; Potoski and Prakash, 2005; Terlaak and King, 2006). Training and documentation needed to meet the entry requirements for strict programs are less costly for companies that already possess superior social and environmental practices and so these companies are more likely to participate.

Weak programs stipulate few entry requirements because they are designed to encourage learning by allowing companies to join regardless of their existing practices. Thus, it is not surprising that previous research has shown that weak programs attract companies with poor social and environmental records and therefore cannot provide a signal of existing superior practices (e.g., King and Lenox, 2000; Lenox and Nash, 2003; Rivera and de Leon, 2004). One reason a company with inferior practices may decide to join a weak program may be to create a smoke screen and they may use their participation to distract stakeholders away from their inferior, but difficult to observe, practices (e.g., King and Lenox, 2000). This allows symbolic adopters to benefit from appearing committed to the program without actually abiding by the program’s ideals. Though, as King and Lenox (2000: 702) state, “such a smoke screen works only so long as it is very difficult for external actors to evaluate the performance of member firms.”

Previous analyses of weak programs have assumed that stakeholders are unable to lift that smoke screen. While it is improbable that external stakeholders will be able to observe a company’s true motivation for joining a weak program, it is possible for stakeholders to gain clues as to a participant’s motivation for joining from the participant’s existing practices. The threat of scrutiny from stakeholders attempting to assess the authenticity of a participant’s commitment may deter companies from taking a seemingly costless socially responsible action (e.g. joining a weak voluntary program) when their existing business practices call into question their motivation for taking that action. We contribute to this literature
by demonstrating that a weak voluntary program can serve as a signal of existing superior business practices when that scrutiny is sufficiently strong.

**Stakeholder scrutiny and skepticism of corporate social responsibility**

Companies increasingly want to appear socially responsible. However, the proliferation of corporate social responsibility (CSR) activities combined with a general uncertainty regarding the meaningfulness of such activities has led to a great deal of stakeholder skepticism. A global survey of 20,000 consumers found that over 60% viewed CSR claims as being purely marketing schemes (Havas, 2008). Not only are stakeholders skeptical, but they are sometimes publicly critical of companies that tout their socially responsible initiatives for appearing self-serving (Lyon and Maxwell, 2010). For instance, activists often accuse companies of greenwashing, or of promoting the company’s green initiatives without disclosing the company’s negative environmental impacts (Lyon and Maxwell, 2010).

Researchers have theorized that when stakeholders perceive socially responsible actions as being insincere they react negatively to the promotion of those activities, regardless of the company’s true motivations for taking those actions (Barnett, 2007; Du, Bhattacharya, and Sen, 2010; Becker-Olsen, Cudmore, and Hill; 2006; Schuler and Cording, 2006). Some empirical evidence has found that advertising socially responsible activities results in negative financial returns for companies whose reputations are out of line with those activities (Servaes and Tamayo, 2013).

This criticism may prevent companies from disclosing information on or calling attention to their socially responsible endeavors (Lyon and Maxwell, 2010). In the environmental arena this is sometimes referred to as “greenhush.” We contribute to this literature by empirically analyzing whether companies anticipate this threat of scrutiny and are deterred from participating when their past actions are not in line with their commitment to a weak voluntary program.

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THEORY AND HYPOTHESES

Scrutiny refers to persistent and potentially intrusive attention paid to an organization’s actions (Sutton and Galunic, 1995). Sutton and Galunic (1995) argue that stakeholder scrutiny prompts organizations to adopt symbolic measures meant to make the organization appear legitimate. Such symbolic measures could include joining voluntary programs with the intent to free ride. In contrast, we argue that the threat of stakeholder scrutiny can inhibit companies from taking socially responsible actions, such as joining a voluntary program, when the company risks appearing to have adopted the program symbolically. The mere act of joining can attract additional attention from stakeholders attempting to assess the authenticity of the company’s commitment.

Stakeholders have an incentive to expose companies they believe joined symbolically, because they wish to reward only those companies that are truly committed. Sincere commitments to voluntary programs can lead companies to integrate the program’s principles into their decision making processes and everyday tasks (Edelman, Erlanger, and Lande, 1993; Dobbin and Sutton, 1998; Short, 2006). In contrast, companies making merely symbolic commitments will not embed their principles and will tend to not alter their decision processes or daily tasks (Edelman, 1992; Krawiec, 2003). We examine factors that affect the likelihood that a company will be scrutinized and criticized for having joined a commit-and-report program, thereby diminishing the perceived net benefits of joining.

Reporting experience

The demand for corporate transparency, particularly for disclosure on social and environmental risks, has been steadily increasing over the past several decades (Buzby and Falk, 1978; Epstein and Freedman, 1994; O’Dwyer, Unerman, and Hession, 2003). Companies that fail to meet their stakeholders’ expectations for disclosure risk activist campaigns (Tilt, 1994) and negative reactions from investors including declining share prices (Blacconiere and Patten, 1994). Failing to submit a comprehensive progress report can be perceived as an indication that the participant is not willing to meet the program’s
reporting requirements and therefore joined symbolically. Thus, this behavior risks being criticized by the program administrator, activists monitoring the program, and the company's stakeholders.

Preparing comprehensive reports requires processes such as identifying the company’s impacts on indicators relevant to the program’s principles and quantifying those impacts in a manner that is useful to stakeholders. Companies vary in the extent to which they already possess these processes upon joining. Companies with reporting experience are more likely to already possess the infrastructure such as tracking software to gather new information related to the program, which facilitates their preparing a progress report (Delmas and Keller, 2005) that is comprehensive enough to meet stakeholders’ expectations. Such companies likely require lower incremental investment to gather data needed to generate a comprehensive progress report, compared to companies that had not already engaged in such reporting. This lower incremental cost makes it less costly for them to provide a comprehensively progress report, which avoids stakeholder criticism. This makes it more likely that companies with reporting experience related to a commit-and-report program’s principles will participate.

**H1:** The more comprehensive a company's past disclosure related to a commit-and-report program’s principles, the more likely it will be to participate.

**Misleading disclosure**

Stakeholders attempting to assess the authenticity of a company’s commitment to a program’s ideals can look for any past misleading behavior relevant to the program, which would cast doubt on the company’s commitment. One way companies can mislead stakeholders is to use intentionally confusing language in their public reports. Famed investor Warren Buffet has noted that companies can explain complex issues clearly if they want to be transparent with investors, noting “I won’t invest in a company if I can’t understand [an accounting] footnote, because I know they don’t want me to understand it” (Warren Buffet Talks Business, 1995).

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Another tactic companies can use to mislead stakeholders via their public reports (either intentionally or out of naiveté) is to fully disclose only the positive, but not negative information about their social and environmental impacts. This selective use of disclosure creates an overly positive image for the company (Lyon and Maxwell, 2011) and may be used to manipulate the public’s perception of the company by deflecting attention away from the company’s negative impacts on society (Lindblom, 1994). Companies are incentivized to share positive information about their social and environmental impacts, but fear disclosing negative information because of a potential backlash from stakeholders (Graham and Woods, 2006; Hess, 2007; Tietenberg, 1998). As a result, few companies fully disclose equal amounts of “good news” and “bad news” (Deegan and Gordon, 1996). The discovery of a company’s past attempts to mislead stakeholders via information disclosure can erode public trust and increase scrutiny by stakeholders including activists, government, and investors. For example, after whistleblowers revealed that U.S. Liquid had illegally dumped toxic wastes and falsified records, its stock dropped 58% and they were sued for having issued false and misleading reports (Repetto, 2004). This loss of trust can cause stakeholders to doubt future promises or commitments to a voluntary program’s ideals.⁹

The additional scrutiny associated with joining a commit-and-report program risks the discovery of past misleading disclosure that can result in criticism and reputational harm. Servaes and Tamayo (2013) find evidence that stakeholders are not receptive to companies that advertise their corporate social responsibility activities when the company’s reputation is not in line with those actions. We argue that companies that disclosed misleading information will anticipate this reaction, because their reporting practices are not in line with the program’s required commitment to transparency. This reduces the likelihood that their stakeholders will view the company’s commitment to the program as being meaningful. Thus, companies with a history of misleading disclosure will benefit less from joining a commit-and-report program.

⁹ The political arena serves as a different example of how past behavior can be used to determine the credibility of future commitments. Upon deciding to run for office an individual attracts the attention of both voters and the media. To discern how likely the candidate is to fulfill those promises the media attempts to dig up (and sequentially expose) any unethical actions a candidate may have taken in the past. These scandals may cause voters to doubt the character of the candidate and therefore the candidate’s promises (Sutter, 2006).
**H2: Prior misleading behavior reduces the likelihood of participating in commit-and-report programs.**

**Impact of stakeholder scrutiny**

Companies that are more prominently visible (e.g. larger and generally more recognizable) to their stakeholders are more likely to be heavily scrutinized by them. Companies with higher visibility are subject to strong demands from regulators (Pfeffer and Salancik, 1978; Scott, 1992) and public interest groups (Greening and Gray, 1994; Pfeffer and Salancik, 1978). Greater visibility also increases the likelihood that companies are targeted by activists (Eesley and Lenox, 2006). This intensive scrutiny is likely to reveal a great deal of information about these firms. In contrast, less visible companies are less likely to possess recognizable brands and their lower profile also means the public is less likely to have formed strong opinions (positive or negative) about them (Fombrun, Gardberg, and Barnett, 2000).

Any additional scrutiny gained upon joining a commit-and-report program is unlikely to reveal much new information on companies with higher visibility due to their already being highly scrutinized. In contrast, the heightened scrutiny imposed on less visible companies has the potential to reveal a great deal more previously undiscovered information, given their low levels of prior scrutiny. Thus, participation provides greater potential negative impact to how stakeholders view less visible companies if they previously engaged in misleading behaviors, such as misleading disclosure of information. Thus, less-visible companies should be less likely than highly visible companies to join commit-and-report programs when they have previously misled stakeholders.

**H3: Prior misleading behavior reduces the likelihood of participating in commit-and-report programs, especially for less visible companies.**

As noted above, one of the main complaints of commit-and-report programs is that some companies might seek to free ride on the reputations of truly committed participants by joining despite having no intention of fulfilling their commitment to the program (Ruggie, 2001). Such attempts are more likely in domains with less activist scrutiny, since activists often behave as corporate watchdogs,
especially as the Internet has made it less costly for them to convey their charges (Tilt, Tilling, and Davidson, 2006).\footnote{For example, Apple was aware of unsafe and inhumane working conditions at one of their key suppliers, Foxconn, for years before the media called attention to the supplier’s working conditions (Parmigiani, Klassen, and Russo, 2011). After the cover-up was discovered many activists, such as SOMO, criticized Apple for its management of its supply chain. Source: http://somo.nl/news-en/unresolved-labour-issues-at-apple-suppliers-in-china (last accessed October, 2013). Coca Cola has been plagued with reputational damage associated in major global media outlets, stemming from allegations from a small activist group in New Delhi that its bottling plants in India have depleted and polluted groundwater, harming rural farmers.} While activists may attack a company for the mismanagement of its social or environmental impacts anywhere geographically in the company’s operations, activists tend to focus their scrutiny on companies that are headquartered in their own country. First, it is easier for activists to research companies that operate (and release information) in the local language. Second, activist revelations about domestic companies are more likely to attract news coverage, which magnifies their message and increases the likelihood of (a) swaying the behavior of targeted companies, and (b) convincing the activist’s funders that their money is translating to effective activist action. Geographic domains with many activists have been shown to deter overall participation in commit-and-report programs, implying that these companies wish to avoid the added scrutiny from activists that can accompany the decision to participate (Berliner and Prakash, 2012).

Activists have been particularly critical of misleading disclosure (Lyon and Maxwell, 2011) and of joining weak voluntary programs symbolically. Some of the most prominent stakeholder scrutiny triggered by companies joining commit-and-report programs is conducted by activists—including Greenpeace\footnote{Greenpeace’s website has 47 news articles (as of July, 2013) featuring Responsible Care and the duplicitous actions of its members. Source: http://www.greenpeace.org/international/en/System-templates/Search-results/?tab=1&all=responsible+care} and the Center for Research on Multinational Corporations (SOMO), which is behind the “Global Compact Critics” blog. Their exposés are meant to inform stakeholders of a company’s duplicitous actions, and this leads stakeholders to believe the company joined with the intent to free ride. As a result, companies that have disclosed misleading information to their stakeholders in the past and are headquartered in a country with many activists will be especially unlikely to participate in a commit-and-report program. Such geographic domains have more capacity to intensify scrutiny on participants which increases the likelihood of revealing these prior misdeeds.
**H4: Prior misleading behavior reduces the likelihood of participating in commit-and-report programs, especially for companies headquartered in countries with many activists**

Countries differ widely in stakeholder expectations for corporate transparency (Taylor Zarzeski, 1996). Companies headquartered in countries with strong norms of transparency face greater pressure to report more information on their financial, social, and environmental risks (Newson and Deegan, 2002; Taylor Zarzeski, 1996). More stringent financial reporting standards reflect society’s greater intolerance for opportunistic and misleading behavior of managers that could harm stakeholders (Gray, 1988). For example, countries with cultures that are less tolerant of misleading behaviors are more likely to have highly detailed legal requirements for financial disclosures (Gray, 1988).

A company’s key stakeholders—including employees, regulators, and investors—tend to be concentrated in their headquarters country, and some evidence suggests that companies tend to be more responsive to the disclosure demands of their local stakeholders than of the global community (Newson and Deegan, 2002). As such, companies headquartered in countries with strong financial reporting standards are more likely to have stakeholders who are especially intolerant of misleading disclosure. Stakeholders with high standards are particularly likely to discount future commitments to being transparent—such as those to commit-and-report programs—issued by companies whose past disclosure is revealed to be misleading. Thus, companies headquartered in countries with strong transparency norms face a greater threat of stakeholder scrutiny and backlash for prior misleading disclosure. Among companies contemplating joining a commit-and-report program despite past misleading reporting practices, those headquartered in countries with strong financial reporting standards are likely to face higher penalties (in expectation) than companies based elsewhere.

**H5: Prior misleading behavior reduces the likelihood of participating in commit-and-report programs, especially for companies headquartered in countries with stronger financial reporting standards**
DATA AND MEASURES

Empirical context

We test our hypotheses in the empirical context of the Global Compact, launched by the United Nations in 2000 to elicit private sector support to remedy social and environmental concerns, especially in countries that lack strong civil and governmental institutions. This commit-and-report program requires companies to (1) make a public commitment to operate according the Global Compact’s ten principles to protect human rights, worker rights, and the environment and to avoid corruption, and (2) commit to annually report the company's actions and plans to implement the principles. The Global Compact publicly discloses participant names and all progress reports are available on the website.

The Global Compact has intentionally minimized its participation requirements, which has allowed the program to grow rapidly (Berliner and Prakash, 2012) and it is now the largest voluntary corporate social responsibility program (Rasche, Waddock, and McIntosh, 2013) with over 10,000 business participants as of 2013. The program’s considerable popularity has spurred much debate regarding its minimal requirements (Bigge, 2004; Deva, 2006; Nolan, 2005; Waddock and McIntosh, 2011). Some have argued that the minimal entry requirements have allowed companies that are not truly committed to the ten principles to join. Such companies have been charged with attempting to “bluewash,” or enhance their reputation by associating with the prestige of the United Nations (and its blue flag) to distract stakeholders from their social and environmental shortcomings (CorpWatch, 2001;

12 The Global Compact's 10 principles on human rights, labor, environment, and anti-corruption are: (1) Businesses should support and respect the protection of internationally proclaimed human rights; and (2) make sure that they are not complicit in human rights abuses. (3) Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; (4) the elimination of all forms of forced and compulsory labour; (5) the effective abolition of child labour; and (6) the elimination of discrimination in respect of employment and occupation. (7) Businesses should support a precautionary approach to environmental challenges; (8) undertake initiatives to promote greater environmental responsibility; and (9) encourage the development and diffusion of environmentally friendly technologies. (10) Businesses should work against corruption in all its forms, including extortion and bribery. (Source: http://www.unglobalcompact.org/AboutTheGC/TheTenPrinciples/index.html accessed June 2013)
13 Source: http://www.unglobalcompact.org/aboutthegc/ (last accessed November, 2013)
Deva, 2006; Williams, 2004). Some activists, like those behind the “Global Compact Critics” and the “Global Compact Compliance” blogs, have criticized participants they believe joined the Global Compact to free ride, or to bluewash.

Prior studies have examined factors that encourage participation in the Global Compact. The Global Compact attracts participants from countries that invest heavily abroad (as a percentage of GDP) and from countries more supportive of the United Nations and its missions (Bennie, Bernhagen, and Mitchell, 2007; Berliner and Prakash, 2012). Berliner and Prakash (2012) found that countries with more NGOs attract fewer Global Compact participants, which they attribute to the negative perception many NGOs have of the program and its lax membership requirements in particular. Bennie, Bernhagen, and Mitchell (2007) found that companies from extractive industries are more likely to participate in the Global Compact than companies from other industries. That study also found that larger and more profitable companies are more likely to participate in the Global Compact. Perez-Batres et al. (2012) argue that membership in the Global Compact is driven by stakeholder pressures. However, they do not explore whether any factors of that pressure may prevent certain types of companies from participating.

Sample

Our sample is defined by the coverage of Trucost Plc, the source of several key variables (described below). Trucost Plc produces and sells corporate environmental profiles—including environmental performance and disclosure—to socially responsible investors. During the five-year period of 2004 through 2008 for which we purchased Trucost data, Trucost covered the 4,819 public companies that were listed on any of the following major stock indices: ASX 200, FTSE All Share (and subsets including FTSE 100 and FTSE 350), MSCI All World Developed (and subsets including MSCI Europe),

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14 The activist group CorpWatch (2001) defines “bluewash” as referring to “corporations that wrap themselves in the blue flag of the United Nations in order to associate themselves with UN themes of human rights, labor rights and environmental protection. Even companies with practices antithetical to UN values…have attempted to bluewash their image. Bluewash is typically associated with attempts by ‘corporate humanitarians’ to weaken UN agreements, in favor of voluntary, toothless codes of conduct regarding social and environmental issues.”


We found no data sources assessing a large global sample of companies’ disclosures across all four of the Global Compact’s focal topics (human rights, labor, environment, and anti-corruption) and so we focus on environmental disclosure. As such, we exclude the 2,469 companies that were in service industries, where environmental reporting is much less of an issue.\footnote{Specifically, we excluded the following ICB Super Sectors: banks, financial services, healthcare, insurance, investment instruments, media, real estate, retail, telecommunications, and travel and leisure; and the following ICB Sub Sectors: business support services, business training and employment agencies, delivery services, financial administration, marine transportation, railroads, transportation services, trucking, waste and disposal services, software, computer services, and internet.} We also exclude 116 companies that had already begun participating in the Global Compact prior to our sample period (before 2004) because they were no longer at risk of deciding whether to participate. Linking the remaining 2,234 companies to our other data sources—the United Nations, Worldscope, the International Union for Conservation of Nature, the World Economic Forum, the Yearbook of International Organizations, and the USDA Economic Research Service—results in an estimation sample of 2,019 companies headquartered in 41 countries, including 109 that began participating in the Global Compact during our sample period.

Tables 1 and 2 report the country and industry distributions of our estimation sample.

[Insert Tables 1 and 2 here]

**Dependent variable**

**Commit-and-report participation.** Our dependent variable, _Global Compact participant_, is a binary variable coded "1" starting the year a company initially participated in the Global Compact and "0" otherwise. We obtained a comprehensive list of all companies that participated in the Global Compact, including the date they began participating, from the United Nations Global Compact website.

**Independent variables**

**Reporting Capabilities.** We created _reporting comprehensiveness_ to measure a company's reporting capabilities as they relate to the Global Compact’s environmental principles. We measure
**reporting comprehensiveness** as the proportion of a company’s relevant environmental indicators for which the company disclosed global quantitative figures. Trucost identified the subset of environmental indicators from a comprehensive list (e.g., \( \text{SO}_2 \) emissions, water consumption) that it deemed relevant to each of 464 industries based on lifecycle assessment and economic input-output tables. Trucost then identified the subset of these 464 industries from which each company derived revenues each year, based on the FactSet Fundamentals database, financial disclosures, and company feedback. The total number of distinct environmental indicators deemed relevant to any of a company's industries is the denominator of **reporting comprehensiveness** ratio. Trucost calculated the numerator by identifying the subset of these indicators for which the company had publicly disclosed worldwide quantitative figures (e.g., worldwide carbon dioxide emissions) in sources such as its annual report, sustainability report, or company website.

**Misleading disclosure.** We measure the extent to which a company’s environmental disclosures were potentially misleading as **greenwash magnitude**. Greenwash can be characterized as the selective disclosure of information regarding the company’s environmental impacts such that stakeholders are led to believe that the company is ‘greener’ than it actually is (Delmas and Burbano, 2011; Lyon and Maxwell, 2011; Marquis and Toffel, 2013; Ramus and Montiel, 2005). This is calculated for each company-year by subtracting Trucost's “weighted disclosure ratio” from its “absolute disclosure ratio” described above (Marquis and Toffel, 2013).\(^{17}\) The weighted disclosure ratio is similar to the absolute disclosure ratio except that it also takes into account the relative environmental damage associated with the disclosed indicators. Trucost uses economic input-output data and lifecycle assessment data to estimate the natural resources consumed and pollution emitted per dollar of revenue for each of 464 industries. Each resource and pollution value is multiplied by its respective environmental damage cost factor, such as $31 per ton of greenhouse gas emitted, which Trucost obtains from the environmental economics literature (Trucost Plc, 2008). This enables Trucost to estimate the environmental damage cost per revenue dollar in each industry. Trucost multiplies these factors to each company's annual revenues, which it allocates to the relevant subset of the 464 industries (typically fewer than 12) based on the

\(^{17}\) Marquis and Toffel (2013) provide a detailed description including examples.
FactSet Fundamentals database, financial disclosures, and company feedback. The sum of these products is the company’s environmental damage and is the denominator of the weighted disclosure ratio.

The numerator of the weighted disclosure ratio is the simply the environmental damage for just those indicators that the company publicly disclosed. Thus, a company that disclosed indicators associated with less damage but fails to disclose more damaging indicators will have an absolute disclosure ratio larger than a weighted disclosure ratio, and thus a positive greenwash magnitude. The estimated greenwash magnitude allows us to measure the extent to which the environmental information the company discloses is representative of its environmental impacts, since disclosing many minor indicators (higher greenwash magnitude) can yield a false impression of transparency. Selective disclosure of low impact damages can be used to misdirect the attention of stakeholders, which can be considered a form of greenwashing (Marquis and Toffel, 2013).

**Moderators**

*Company visibility.* To capture a company’s visibility to stakeholders we rely on company size measured as annual sales, a common approach used by many others (e.g., Patten, 2002; Hackston and Milne, 1996; Cho and Patten, 2007; Elsayed and Hoque, 2010). We gathered revenues data from Worldscope in millions of US dollars and standardize the data by country. Standardizing by each country takes into account that a $500 million dollar a year company in Malaysia is large relative to its peers and will attract more scrutiny from its stakeholders than a company with the same amount of sales located in the United States.

*Activist density.* We measure the number of activists in each company’s headquarters country as the number of environmental non-governmental organizations (environmental NGOs) per country-year,

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18 Some studies use sales to proxy for visibility, while also including employees to control for organizational size. Because we are missing employee data for approximately 300 firm-years we only use sales. However, our hypothesized relationships do not change substantially when we do include employees.

19 The average value of sales for each country in our sample is subtracted and then that value is divided by the standard deviation of sales for each country.
which we obtained from the International Union for Conservation of Nature (IUCN). Environmental activists are particularly keen to catch and criticize companies that have engaged in greenwashing behavior (Lyon and Maxwell, 2011). This is why we use the number of environmentally focused NGOs.

**Financial reporting standards.** We measure the strength of financial reporting standards for companies’ headquartered country based on data from annual World Economic Forum’s Global Competitiveness surveys. In these surveys, business leaders were asked “In your country, how would you assess financial auditing and reporting standards regarding company financial performance?” Responses ranged from 1 "extremely weak" to 7 "extremely strong."

**Control variables**

We measure the extent to which a company's activities results in environmental damage using estimated values obtained from Trucost, described above. In our models, we use the log to reduce skew. We also obtained data from Trucost on each company's primary industry using the 19 Industry Classification Benchmark (ICB) supersector categorizations. We created dummy variables for each industry. For each company, we created industry participation as the percentage of all other companies in the sample that shared its headquarters country and industry that were already participating in the Global Compact by the prior year.

We created five additional annual variables associated each company’s headquarters country. We measure the support for intergovernmental organizations as the annual number of intergovernmental organizations (IGOs) in which the country participates, based on data from the annual Yearbook of International Organizations. We also obtained from this source the annual number of nongovernmental organizations (NGOs) operating in the country, from which we subtract the number of environmental

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20 Current IUCN membership data is located online here: [http://www.iucn.org/about/union/members/who_members/members_database/](http://www.iucn.org/about/union/members/who_members/members_database/) (last accessed May 2013). We contacted the IUCN staff to obtain historical counts of IUCN members that are either internationally or nationally focused NGOs.

21 We used the 2003 through 2007 Global Competitiveness surveys because we lag all independent variables one year. These surveys are available at [http://www.weforum.org/issues/global-competitiveness](http://www.weforum.org/issues/global-competitiveness) (last accessed May 2013).

22 The Yearbook of International Organizations is available at [http://www.uia.org/yearbook](http://www.uia.org/yearbook) (last accessed August 2013). We used the 2003 through 2007 editions because we lag all independent and control variables one year.
NGOs (from the IUCN, described above) to create non-environmental NGOs. Non-environmental NGOs serves to proxy for the level of scrutiny a company faces in its headquarters country from non-governmental organizations besides IUNC-member environmental organizations. We measure the economic development in each company's headquarters country as the annual GDP per capita, which we obtained from the USDA Economic Research Service\(^{23}\) and take the log to reduce skew. We also gather data population from the USDA Economic Research Service.

Summary statistics and correlations are reported in Table 3.

[Insert Table 3 about here]

**EMPIRICAL MODEL AND RESULTS**

We estimate the following model:

\[
y_{i,c,t} = F(\beta_1 y_{i,c,t-1} + \beta_2 x_{i,j,c,t-1} + \lambda + \tau_t + \mu_{i,j,c,t})
\]

where \(y_{i,c,t}\) refers to whether company \(i\) in industry \(j\) headquartered in country \(c\) had participated in the Global Compact in year \(t\) (Global Compact participation). The function \(F(\cdot)\) refers to the logistic function, and the term \(y_{i,c,t-1}\) refers to our key explanatory variables, reporting comprehensiveness, greenwash magnitude, sales, environmental NGOs, and strength of financial reporting standards.\(^{24}\)

The term \(x_{i,j,c,t-1}\) refers to several factors we control for that might also affect a company’s decision to participate in the Global Compact. We control for environmental damage because companies that pollute more may face more pressure to appease stakeholders and therefore may be more likely to join voluntary programs (e.g., Arora and Cason, 1996; King and Lenox, 2000). We include industry participation to account for the possibility that peer pressure (mimetic institutional forces) might


\(^{24}\) As a robustness test we run a hierarchical model (also known as a mixed logistic regression coded as xtmelogit in Stata) with companies nested within countries. This yields similar results as our pooled logistic model (in terms of effect sizes and significance levels) with the exception that the coefficient on the interaction between greenwash and the strength of reporting standards (H5) is significant at the 5% level in the pooled logistic regression, but only significant at the 10% level in the hierarchical model.
influence a company's decision to participate in the Global Compact (Bennie, Bernhagen, and Mitchell, 2007; Perez-Batres, Miller, and Pisani, 2011).

\( X_{i,j,c,t-1} \) also includes several country-level factors that might influence a company’s decision to participate in the Global Compact. We control for the annual number of IGOs in each company’s headquarters country because countries that are more embedded in IGO networks have stronger support for the norms (Frank, Hironaka, and Schofer, 2000; Koo and Ramirez, 2009) including those embodied in the Global Compact, which encourages companies in those countries to become participants (Berliner and Prakash, 2012). In contrast, because NGOs have targeted criticism on Global Compact participants, potential participants headquartered in countries with more NGOs have more key stakeholders that oppose the Global Compact, which deters participation rates (Berliner and Prakash, 2012). Thus, we control for Non-Environmental NGOs: NGOs that were not included in our environmental NGOs tally from the IUCN. Because more populated countries will have more IGOs and NGOs, but not necessarily more scrutiny per company, we control for a country’s population. We also control for annual GDP per capita in the firm's headquarters country because poorer countries tend to struggle more with the issues detailed in the Global Compact’s principles. This may make it more difficult for companies from poorer countries to abide by the program’s principles (Berliner and Prakash, 2012), but it also may make membership more valuable because these participants are able to more easily distinguish themselves from their peers.

The term \( \lambda_i \) represents industry dummies (ICB supersector categories) to control for time-invariant industry differences in the tendency to participate in the Global Compact (Bennie, Bernhagen, and Mitchell, 2007). We also include year dummies (\( \tau_t \)) to control for overall temporal factors that might affect participation, such as the Global Compact becoming more recognizable over time.

We estimate our models using logistic regression. Because our model predicts a company's decision to initially participate in the Global Compact, we omit from the sample participants’ observations in the years after they joined. We lag all independent variables, moderators, and control variables by one year to avoid reverse causality concerns. To ease interpretation, all interacted variables
are either mean centered or standardized. Because several of our variables are measured at the country-level, we report heteroskedasticity-robust standard errors clustered by country.\textsuperscript{25}

Because \textit{greenwash magnitude} is constructed in part based on \textit{reporting comprehensiveness}, we estimate the effects of these variables in two separate models that are identical except Model 1 includes \textit{reporting comprehensiveness} whereas Model 2 includes \textit{greenwash magnitude}. Results are reported in Table 4. The coefficients and standard errors do not differ substantially between Models 1 and 2.

Focusing first on the control variables, we find that companies with more \textit{environmental damage} are significantly more likely to participate in the Global Compact, which is consistent with other studies of commit-and-report program participation. We also find that companies headquartered in countries with more IGOs are more likely to participate in the Global Compact, confirming the findings of Berliner and Prakash's (2012) country-level analysis. We find no evidence that \textit{non-environmental NGOs, industry participation, GDP per capita or population} influences companies’ participation decision.\textsuperscript{26}

[Insert Table 4 about here]

Turning to our hypothesized variables, Model 1 indicates that companies exhibiting greater \textit{reporting comprehensiveness} are more likely to participate in the Global Compact (β = 1.82; p<0.01), which supports H1. The average marginal effect (AME) indicates that a 10% increase in \textit{reporting comprehensiveness} is associated with a 0.30 percentage point increase in the probability of becoming a participant,\textsuperscript{27} which represents a 17% increase from the sample mean probability of 1.73% to 2.03%.

Companies exhibiting more prior misleading behavior as measured by \textit{greenwash magnitude} are significantly less likely to participate in the Global Compact (Model 2 β = -1.22; p<0.01), lending support for H2. The average marginal effect indicates that a one standard deviation increase of \textit{greenwash magnitude} corresponds to a 0.54 percentage point decrease in the likelihood of participating in the Global

\textsuperscript{25} As a robustness test we drop observations from countries with fewer than 15 firm-years resulting in a sample of 2,000 companies in 35 countries to create a more balanced sample. Effect sizes of all hypothesized results are similar for both samples and significance levels stay the same.
\textsuperscript{26} When we exclude \textit{environmental NGOs} and include all NGOs as a single metric, similar to Berliner and Prakash (2012), we find a negative and significant coefficient, which is also consistent with their study.
\textsuperscript{27} 0.30 is calculated as 10% times the AME of 2.96 rounded to 2 decimal places.
Compact,\textsuperscript{28} which represents a 31\% decrease in the probability of participation from the 1.73\% baseline probability to 1.19\%.

The significant negative coefficient on \textit{greenwash magnitude} in Model 3 (\(\beta = -1.30; p<0.01\)) suggests that overall greenwashing deters joining. We test H3 by including in Model 3 an interaction between \textit{greenwash magnitude} and \textit{sales}. The positive significant coefficient on this interaction term (\(\beta = 0.31; p<0.05\)) yields support for H3, which predicts that greenwashing is an especially strong deterrent to Global Compact participation for less visible companies. Figure 1 depicts the average predicted probability of participating in the Global Compact along varying levels of \textit{greenwash magnitude}. The solid line represents the average predicted probability of participation of low visibility companies: those with annual sales at the 5\(^{th}\) percentile in their country. The dashed line represents the average predicted probability of participation of high visibility companies: those with annual sales at the 95\(^{th}\) percentile in their country. Recalling the significant negative overall relationship between \textit{greenwash magnitude} and the probability of participation indicated in Models 2 and 3, it is not surprising to see a downward sloping relationship for both high- and low-visibility companies. The significant interaction term in Model 3 indicates that the negative relationship is more pronounced (steeper) for less visible companies than for more visible companies.

We test H4 by including an interaction between \textit{greenwash magnitude} and \textit{environmental NGOs} in Model 4. While the negative coefficient on this interaction term (\(\beta = -0.26\)) is consistent with our hypothesis that more greenwashing is an especially strong deterrent from participating in the Global Compact in countries with many environmental NGOs, the coefficient is not statistically significant.

The interaction between \textit{greenwash magnitude} and \textit{strength of financial reporting standards} in Model 5 is significant negative coefficient on this interaction term (\(\beta = -0.51; p<0.05\)) indicates that companies engaging in more greenwash are especially less likely to participate in the Global Compact in countries with stronger reporting standards, which supports H5. The dashed line in Figure 2 represents the average predicted probability of participation of companies headquartered in countries with very strong financial reporting standards.

\textsuperscript{28} 0.54 is calculated as one standard deviation (0.27) times the AME of -1.99.
financial reporting standards (the 95th percentile in our sample, or 6.62). The negative slope of this line indicates that for these companies, there is a negative relationship between greenwashing and the probability of participating in the Global Compact. The rather flat solid line indicates that for companies headquartered in countries with very weak financial reporting standards (the 5th percentile, or 4.73), there appears to be no relationship between greenwashing and the probability of participating. The significant negative coefficient indicates that relationship between greenwashing is a more significant deterrent to participating among companies headquartered in countries with stronger reporting standards than among those headquartered in countries with weaker standards.

DISCUSSION

We find that companies are deterred from joining a commit-and-report program, specifically the United Nations Global Compact, when they lack reporting capabilities (H1) and when they disclosed information in a misleading manner prior to joining (H2). Such companies would be especially prone to attract stakeholder criticism and skepticism regarding their ability or willingness to adhere to the program’s requirement to disclose an accurate update on activities to implement the program’s principles. We also find evidence that factors that help enhance the impact of stakeholder scrutiny further diminish the net benefits of joining for companies who disclosed misleading information. To our knowledge, this is the first analysis of the how the threat of stakeholder scrutiny of socially responsible actions can deter companies from taking such actions. We also find the first evidence that a voluntary program with lax entry requirements can serve as a credible signal of superior practices (i.e. environmental reporting practices) when the threat of stakeholder scrutiny is sufficiently strong.

Theoretical contributions

Our findings contribute to the literature on organizations’ decisions to adopt voluntary programs. Previous research found that weak voluntary programs do not serve as an effective signal of a company’s existing superior environmental practices or working conditions (e.g., e.g., King and Lenox, 2000; Lenox and Nash, 2003; Rivera and de Leon, 2004). These papers concluded then that voluntary programs are not
useful to stakeholders attempting to identify companies that are concerned about their social or environmental impacts. Consistent with that previous research we find that companies with larger environmental impacts are more likely to become participants of the Global Compact. However, our results provide empirical evidence that the Global Compact can be used as a useful signal of a company’s existing commitment to being transparent. To our knowledge, this is the first analysis to find that a weak voluntary program can provide a credible signal of existing superior practices.

Our research also contributes to the literature that explores the skeptical response stakeholders sometimes have to the promotion of CSR initiatives. Joining a voluntary program calls attention to the participant’s social and environmental practices. This is one of the primary reasons companies participate in voluntary programs so that they can receive positive benefits from this recognition (e.g. Arora and Cason, 1996). However, stakeholders can be critical of companies promoting their socially responsible initiatives when those initiatives appear self-serving or even hypocritical (e.g. Lyon and Maxwell, 2010). Previous research has shown that promoting the company’s socially responsible initiatives can have a negative impact on financial returns when the company’s reputation is out of line with the initiative (Servaes and Tamayo, 2013). We add to this emerging discussion by demonstrating that companies avoid joining a seemingly free voluntary program when their past behavior is out of line with the program’s principles and joining may invite criticism.

Insights for managers

While companies face increasing expectations of being accountable for the labor practices and environmental performance of their suppliers, managing these difficult-to-observe attributes presents serious challenges. Some companies have used proprietary supplier codes of conduct and teams of auditors to assess conformity (e.g., Locke, Qin, and Brause, 2007), whereas others have sought to rely on suppliers that joined voluntary programs to help them manage these issues (e.g., King, Lenox, and Terlaak, 2005). Others still have opted to source from suppliers that are transparent about their labor and environmental impacts (Jira and Toffel, 2013). Companies can benefit from sourcing from suppliers that
are transparent in two ways. First, improvements made as a result of being transparent can lower the risk of reputational and financial harm to buyers. Second, transparency makes it possible for companies to assess the risks of partnering with that supplier (Jira and Toffel, 2013). We find that participation in commit-and-report programs can serve as a means for companies to identify suppliers that are committed to being transparent.

Our research not only offers insights to managers of buyers, but also to the managers of suppliers attempting to decide which of the hundreds of voluntary programs to join. Joining a program with strict requirements, like ISO 14001 or SA8000, is a more certain way to send a signal of the company’s commitment to properly managing their environmental impacts or working conditions. However, it is costly to join strict programs. Joining a weak voluntary program, such as a commit-and-report program, can be a low-cost alternative. Though, it will only send a credible signal of the company’s commitment to the program’s ideals when stakeholder scrutiny is strong enough to prevent companies with inferior practices from joining.

**Limitations and future research**

There are some limitations to our work. Due to data constraints this study is limited to analyzing only the decisions of companies to join the Global Compact and not multiple commit-and-report programs. Commit-and-report programs all share a goal toward transparency and they all require progress reports. However, they do differ in terms of their target participants (some programs like Responsible Care are limited to a specific industry), the focus of the program’s goals (working conditions versus environmental impacts) and the sanctions levied on firms failing to meet the progress report requirement. Of the programs falling into our commit-and-report classification the Global Compact has one of the strictest administrative sanctions on firms failing to provide comprehensive progress reports: they publicly disclose reports and they expel companies that failed to submit their reports.  

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29 Responsible Care makes their reports available internally to allow for peer pressure (Lenox and Nash, 2003). WasteWise makes their reports available to the U.S. EPA (source: [http://www.epa.gov/epawaste/conserve/ssmm/wastewise/index.htm](http://www.epa.gov/epawaste/conserve/ssmm/wastewise/index.htm)) and Sustainable Slopes makes their reports
directly whether the Global Compact serves as a useful signal of transparency because like all commit-
and-report programs it requires a progress report, or because it publicly discloses those reports to external
stakeholders. Other commit-and-report programs have also received less overall scrutiny from external
actors. The Global Compact is the largest voluntary program in existence and it has attracted considerable
criticism from researchers, the media, and activists (e.g. Bigge, 2004; Deva, 2006; Nolan, 2005; Waddock
and McIntosh, 2011).

This study is also limited to analyzing only the decisions of publicly traded companies to join the
Global Compact. Publicly traded companies only account for approximately 12 percent of the Global
Compact business participants. 30 Privately owned companies are subject to less scrutiny from
stakeholders generally, so it may not be possible for commit-and-report programs to be a credible signal
of commitment to the program’s ideals under any circumstances given the lack of external monitoring.
Our analysis was also limited to data on a company’s environmental disclosures. While environmental
disclosure has garnered far more attention from investors and other stakeholders than disclosure on social
issues, such as working conditions, it is only one factor that companies should consider when attempting
to find suppliers that are properly managing environmental impacts and labor conditions.

Our work expands the possibilities for future research on voluntary programs with weak program
designs. Previous studies have presumed that these programs were ineffective because they could not
prevent free riders from joining. Stakeholders may be deterring the participation of free riders or they may
be deterring the participation of companies that wish to join and make improvements, but are wary of
being criticized for past actions. Previous research has found that companies that are more transparent
regarding their social or environmental practices are more likely to make improvements to their social or
environmental performance (e.g. Jin and Leslie, 2003). Thus, our analysis of the factors that prevent
companies that are not transparent from joining could provide insights for future studies as to when
program designers can expect participants to make future improvements and when they cannot. Future

research could also examine whether companies are more likely to join a strict program when the risk of being criticized for joining a program with weak requirements is high.

Conclusion

Our study aimed to deepen our understanding of the usefulness of voluntary programs with weak requirements as a signal of a potential supplier’s commitment to the program’s goals. Transparency is an important component to consider when identifying low-risk suppliers. We demonstrate that participation in a commit-and-report program, the United Nations Global Compact, can serve as a useful signal of a supplier’s commitment to transparency when the threat of stakeholder scrutiny prevents those with a history of misleading disclosures from participating. Thus, our study underscores the importance of considering the role of transparency and the impact of stakeholder scrutiny in future studies of the usefulness of weak voluntary programs.

REFERENCES


### Table 1. Headquarters composition of sample

<table>
<thead>
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<th>Country</th>
<th>Firms</th>
<th>Percent</th>
</tr>
</thead>
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<td>Austria</td>
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<td>Belgium</td>
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<td>0.5</td>
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<td>Brazil</td>
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<td>Canada</td>
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<td>Chile</td>
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<td>Denmark</td>
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**N=2,019**

### Table 2. Industry composition of sample

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<th>ICB Super Sector</th>
<th>Firms</th>
<th>Percent</th>
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<td>Basic Resources</td>
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<td>Utilities</td>
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**N=2,019**
### Table 3. Summary Statistics

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<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>Correlations</th>
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<td>0.06 1.00</td>
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</tr>
<tr>
<td>[7] Ln Environmental Damages</td>
<td>3.10</td>
<td>2.08</td>
<td>0</td>
<td>9.31</td>
<td>0.00 0.00 0.71 0.66 -0.12 0.79 1.00</td>
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<tr>
<td>[8] IGOs</td>
<td>0.76</td>
<td>0.22</td>
<td>0.30</td>
<td>1.32</td>
<td>0.06 0.01 -0.15 0.02 0.02 0.28 0.11 1.00</td>
</tr>
<tr>
<td>[9] Non-environmental NGOs</td>
<td>6.26</td>
<td>1.73</td>
<td>1.67</td>
<td>8.79</td>
<td>-0.02 0.05 0.43 0.55 -0.10 0.40 0.59 -0.08 1.00</td>
</tr>
<tr>
<td>[10] Industry Participation</td>
<td>0.05</td>
<td>0.09</td>
<td>0</td>
<td>0.80</td>
<td>-0.03 0.10 0.61 -0.22 0.11 -0.25 0.17 -0.09 -0.24 1.00</td>
</tr>
<tr>
<td>[11] Ln GDP per Capita</td>
<td>10.26</td>
<td>0.89</td>
<td>6.40</td>
<td>11.33</td>
<td>0.06 0.10 -0.01 0.00 0.33 0.07 0.04 0.09 0.03 -0.03 1.00</td>
</tr>
<tr>
<td>[12] Ln Population</td>
<td>18.34</td>
<td>1.32</td>
<td>13.03</td>
<td>20.99</td>
<td>-0.09 -0.20 0.04 -0.03 -0.41 -0.03 -0.02 -0.08 -0.03 0.05 -0.47 1.00</td>
</tr>
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</table>

N = 6,476 company-year observations from 2,019 companies.
<table>
<thead>
<tr>
<th>DV: Global Compact Participant</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting Comprehensiveness</td>
<td>1.816**</td>
<td>2.96%</td>
<td>-1.223**</td>
<td>-1.99%</td>
<td>-1.397**</td>
</tr>
<tr>
<td>Greenwash Magnitude (c)</td>
<td>-0.672*</td>
<td>-1.10%</td>
<td>-0.675*</td>
<td>-1.10%</td>
<td>-0.638*</td>
</tr>
<tr>
<td>Sales (s by country)</td>
<td>0.211**</td>
<td>0.34%</td>
<td>0.203**</td>
<td>0.33%</td>
<td>0.308**</td>
</tr>
<tr>
<td>Environmental NGOs (s)</td>
<td>-0.036</td>
<td>-0.06%</td>
<td>-0.050</td>
<td>-0.08%</td>
<td>-0.051</td>
</tr>
<tr>
<td>Ln Environmental Damages</td>
<td>0.325**</td>
<td>0.53%</td>
<td>0.278**</td>
<td>0.45%</td>
<td>0.251**</td>
</tr>
<tr>
<td>IGOs (1000's)</td>
<td>2.336+</td>
<td>3.81%</td>
<td>2.347*</td>
<td>3.82%</td>
<td>2.404*</td>
</tr>
<tr>
<td>Non-environmental NGOs (1000's)</td>
<td>-0.032</td>
<td>-0.05%</td>
<td>-0.035</td>
<td>-0.06%</td>
<td>-0.049</td>
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<tr>
<td>Industry Participation</td>
<td>1.062</td>
<td>1.73%</td>
<td>1.038</td>
<td>1.69%</td>
<td>1.063</td>
</tr>
<tr>
<td>Ln GDP per Capita</td>
<td>-0.015</td>
<td>-0.02%</td>
<td>-0.032</td>
<td>-0.05%</td>
<td>-0.022</td>
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<tr>
<td>Ln Population</td>
<td>0.197</td>
<td>0.32%</td>
<td>0.193</td>
<td>0.31%</td>
<td>0.196</td>
</tr>
<tr>
<td>Greenwash Magnitude (c) X Sales (s by country)</td>
<td>0.311*</td>
<td>[0.138]</td>
<td>0.311*</td>
<td>[0.138]</td>
<td>0.311*</td>
</tr>
<tr>
<td>Greenwash Magnitude (c) X Environmental NGOs (s)</td>
<td>-0.262</td>
<td>[0.254]</td>
<td>-0.262</td>
<td>[0.254]</td>
<td>-0.262</td>
</tr>
<tr>
<td>Greenwash Magnitude (c) X Strength of Financial Reports (s)</td>
<td>-0.506*</td>
<td>[0.251]</td>
<td>-0.506*</td>
<td>[0.251]</td>
<td>-0.506*</td>
</tr>
<tr>
<td>Year Dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Industry Dummies</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
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<td>Observations (company-years)</td>
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</table>

Logistic regression coefficients with standard errors clustered by country in brackets. ** p<0.01, * p<0.05, + p<0.10. (c) indicates variables that are mean-centered and (s) indicates variables that are standardized.
**Figure 1.** Greenwashers are deterred from joining the Global Compact more so when they are less visible to stakeholders prior to joining.

![Graph showing probability of participation vs. greenwash magnitude](image1)

**Figure 2.** Greenwashers are deterred from joining the Global Compact more so when financial reporting and audit institutions are strong.

![Graph showing probability of participation vs. greenwash magnitude](image2)