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# Activist Pressure and Firm Compliance with ESG Disclosure Policy: Experimental Evidence from the U.K. Modern Slavery Act

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Many corporate ESG disclosure regulations rely on private activist pressure to enforce compliance, but relatively little is known about its effectiveness. We present results from a field experiment testing the effect of various types of pressure from a leading human rights NGO on subsequent corporate compliance with the U.K. Modern Slavery Act of 2015, a law requiring disclosure of actions taken to address human rights issues. Sending firms a letter describing their legal ESG disclosure obligations had an unexpected effect of reducing rather than increasing compliance. This effect was partly mitigated for firms whose letter additionally included a list of already compliant firms, the mitigating effect being greatest when this list of peers was drawn from the same geographic location as the targeted firm.

Keywords: ESG Disclosure; Modern Slavery; Human Rights; Sustainability; Corporate Social Responsibility; Peer Effects; Behavioral Economics

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# Activist Pressure and Firm Compliance with ESG Disclosure Policy: Experimental Evidence from the U.K. Modern Slavery Act

#### 1. INTRODUCTION

It is now widely accepted that reliable disclosure of "ESG" (environmental, social and governance) factors is essential to monitoring by stakeholders, and thus, to effective corporate governance (Chatterji & Toffel, 2010). Governments and regulatory bodies worldwide have therefore introduced frameworks and requirements to improve the completeness and consistency of corporate ESG disclosure (van der Lugt, van de Wijs, & Petrovics, 2020). However, widespread compliance with these regulations remains elusive. For instance, Singapore's recent sustainability reporting regulation was followed by just one-third of the firms covered by it (Loh, Thomas, & Wang, 2017), France's *Grenelle 2* CSR reporting requirement had little impact on disclosure (Senn, 2018), and the U.K.'s requirement to disclose gender pay gap information saw widespread misreporting (Bailey et al., 2022).

One common explanation for limited compliance with ESG disclosure requirements is that many regulators forego monitoring and enforcement activities (King & Pucker, 2021), relying instead on third parties to track compliance and apply pressure on firms (Reid & Toffel, 2009). Research in non-market strategy suggests that such "private politics," and the accompanying threat of reputational damage, compels firms to behave in the public interest (Baron, 2001; 2003; Hiatt, Grandy, & Lee, 2015; Odziemkowska, 2022a). However, we still have a limited understanding of whether pressure applied by activists—particularly social movements and NGOs—has its intended influence on firm behavior in general, and ESG disclosure in particular. Such activists shape public attention to corporations' involvement in social and environmental welfare and legitimize firm reputation (King, 2008), and are therefore often viewed as a primary source of private pressures for ESG-related compliance (Baron, 2003). Their role also deserves particular attention because their interests and tactics represent

a broad set of stakeholder interests related to firms' social and environmental impact (Bridoux & Stoelhorst, 2014; Henisz, Dorobantu, & Nartey, 2014), which extend beyond just the "financial materiality" concerns central to shareholder interests (Cheng, Ioannou, & Serafeim, 2014; Hawn, Chatterji, & Mitchell, 2018).

Multiple methodological challenges, however, make it difficult to identify the impact of activist pressure on compliance with disclosure regulations. First, activists are likely to strategically focus on particular types of firms, such as those that are most visible or most likely to respond (King & McDonnell, 2013; Lenox & Eesley, 2009; McDonnell, King, & Soule 2015; McDonnell, Odziemkowska, & Pontikes, 2021), making it difficult to isolate the causal effects of activist pressure from selection effects associated with strategic targeting. Second, while some well-studied forms of activist pressure on companies, such as boycotts, are overt and well-publicized (e.g., King, 2008), much activist pressure relies instead on private communication that can be difficult or impossible for researchers to observe. Third and finally, compliance with many ESG disclosure regulations is not tracked in central databases, making it difficult to even measure compliance rates, let alone attribute these to specific episodes of activism. These challenges have led to calls for new methods for studying corporate responses to activism, particularly for experimental methods designed to "establish a better understanding of the causal mechanisms at play" (Davis, King, & Soule, 2022).

In this paper, we present the results of a field experiment designed to test the impact of activism on compliance with the U.K. Modern Slavery Act 2015, which required certain firms to publish a statement describing their actions to prevent modern slavery and human trafficking in their supply chains. The 6,906 firms we examined had not published such a statement at the time of our experiment in 2018. We randomly assigned these non-compliant firms to either a control group or to one of several treatment conditions wherein a letter was sent by our research partner, a prominent U.K.-based NGO focused on corporate practices related to human rights.

In the first treatment condition, firms were mailed a "baseline" letter that identified a firm's requirement to comply with the MSA regulation, described the required disclosure of supply chain practices, and encouraged compliance. Firms in additional treatment conditions were mailed this baseline letter *plus* an additional page containing a list of already-compliant peer firms that could serve as role models for the recipient firm.

Contrary to our expectations, firms that were mailed the baseline letter alone were *less* likely to subsequently comply with the MSA regulation relative to firms in the control group. This negative effect of the baseline letter was partly mitigated for the firms whose mailings also included a list of compliant peers. Further, this positive marginal effect of including a list of compliant peers versus not was stronger in the specific experimental condition where the peers in the list were drawn from the same geographic area as the focal firm than in the three experimental conditions where the respective list was drawn from other populations of firms: all compliant firms, firms in the same industry, and firms in the same geography-industry combination.

Overall, our study uses experimental methods to bring new and counterintuitive evidence to the growing strategy and management literatures on ESG disclosure, private governance, and non-market strategy. We document that activism can have the unintended effect of decreasing rather than increasing compliance with ESG disclosure regulation. Further, consistent with institutional theory, this negative effect can be significantly mitigated by including information about compliant peers in the same industry or geographic field, with this influence varying according to the type of peers highlighted (Marquis & Tilcsik, 2016). More generally, our research highlights the limits of relying on private politics to govern societal issues (Luo & Kaul 2019; Klein et al. 2010). We conclude with discussions of the limitations of our study and of implications for research and practice.

#### 2. THEORETICAL BACKGROUND AND HYPOTHESES

#### 2.1 Firm compliance with ESG disclosure regulation

A firm's choice to disclose ESG information can be viewed as a strategic decision based on expected benefits and costs (Durand, Hawn, & Ioannou, 2019). For instance, an ESG disclosure that reveals robust practices related to mitigating environmental impact or protecting human rights may strengthen the reputation of the firm in the eyes of the firm's customers and employees or to reduce business risks perceived by its investors. Such disclosures may also benefit the firm through indirect pathways, such as the development of generalized trust and long-term relationships with shareholders and other stakeholders (Cheng, Ioannou, & Serafeim, 2014). On the other hand, ESG disclosures that reveal vulnerabilities or concerns viewed negatively by various stakeholders may damage the firm's reputation.

These mixed considerations lead many firms to forego disclosure altogether, or to engage in selective disclosure that accentuates favorable ESG information while deemphasizing or omitting information that might elicit concern (Delmas & Burbano, 2011; Fabrizio & Kim, 2019; Kim & Lyon, 2015; Lyon & Montgomery, 2015; Marquis, Toffel, & Zhou, 2016). Recognizing the incompleteness and biasedness of ESG reporting in practice, many regulatory authorities have introduced reporting frameworks and requirements designed to improve the extent and quality of ESG disclosure (van der Lugt et al., 2020). Research suggests that the effectiveness of such regulations depends significantly on enforcement (Delmas & Toffel, 2008; Short & Toffel, 2010), with several researchers arguing that monitoring and enforcement by the government itself is critical for achieving truly widespread compliance (Aragon-Correa, Marcus, & Vogel, 2020; King & Lenox, 2002; King & Pucker, 2021). Nevertheless, several factors lead regulators to often avoid undertaking monitoring and enforcement themselves. First, regulators may wish to permit some non-compliance, particularly among small firms for which the societal welfare benefits of compliance may be outweighed by the administrative burden of reporting (Ho & Park, 2019). Second, developing

the capabilities necessary for systematic monitoring and enforcement involves significant financial costs that may be out of reach for resource-constrained regulators. Third, it is often more politically expedient to mobilize democratic support for laws that do not include monitoring and enforcement by the government.

When regulators forego direct monitoring and enforcement, they effectively delegate these functions to private activism, often explicitly citing pressures from private activists. We still have limited evidence, however, on the effects of such pressures on the outcome of ESG disclosure compliance.

#### 2.2. Responsiveness to activist pressure

Reliance on third parties to pressure firms into compliance with ESG disclosure regulation can be understood as an application of private politics; that is, processes through which conflicts between firms and their stakeholders are resolved without reliance on the law (Baron, 2003). Activists frequently apply pressure on firms to adopt or change behaviors that advance the activists' goals or those of the interest groups or societal issues they represent (Baron, 2001). A significant literature has focused on the tactic of activist investors to argue that ESG behaviors are financially material, and thus to use shareholder resolutions to apply pressure on firms (Reid & Toffel, 2009; Flammer et al., 2021).

Less systematic evidence is available on the effect of non-shareholder activism by social movements and NGOs. Such activists utilize tactics that include the informal and often contentious repertoires associated with civil society and social movements (Tilly & Tarrow, 2015), such as boycotts, public rallies, and media campaigns, as well as more cooperative arrangements (Odziemkowska, 2022b). Outside of the disclosure domain, an extensive literature has sought to examine corporate responsiveness to pressures from activists, although

<sup>1</sup> For instance, the 2012 French *Grenelle II* law, which requires firms to produce an audited CSR report, notes that there is "no legal sanction to non-compliance" but advises firms to comply on the basis that "there is increasing scrutiny from the wider civil society on these issues" (Ministère des Affaires Etrangères, 2012).

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establishing conclusive causal relationships is challenging given the non-experimental nature of typical data (see Briscoe & Gupta, 2016 for a review). Overall, targeting by activists appears to have some of the intended impact, albeit unevenly (Davis, King, & Soule, 2022). Eesley & Lenox (2006) find that responsiveness is positively related to the relative power of the activist, their social legitimacy, and the urgency of the issue at hand. The effect of activist pressure might also be moderated by the extent and nature of related actions by competitors (Pacheco & Dean, 2015), the engagement of third parties such as the media (King, 2008) and the political identities of corporate insiders (Gupta & Briscoe, 2020). Studies also show that activist pressure is also associated with reductions in stock price (King & Soule, 2007; Bartley & Child, 2014), and that firms can develop capabilities over time for responding to pressure (McDonnell & King, 2013; McDonnell, King, & Soule, 2015).

Activist pressure may be understood as affecting the costs and benefits of ESG disclosure (Bott et al., 2020; Bérgolo et al., 2022; Doshi, Dowell, & Toffel, 2013; Kitzmueller & Shimshack, 2012; Reid & Toffel, 2009). The most salient cost is often reputational: if the activists and their demands are viewed as socially legitimate (Eesley & Lenox, 2006), non-compliance might lead to significant reputational damage (Baron, 2001; Bartley & Child, 2014) and present a longer-term business risk (Godfrey et al., 2009; Koh, Qian, & Wang, 2014; Luo, Kaul, & Seo, 2018). Activism can also have an informational effect: firms may be unaware of the disclosure regulation or how it applies to them, particularly if that regulation is not associated with governmental monitoring and enforcement. Based on these arguments, we expect that direct activist pressure would increase a firm's likelihood of regulatory compliance.<sup>2</sup>

Hypothesis H1. A firm receiving activist pressure to comply with an ESG disclosure regulation

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<sup>&</sup>lt;sup>2</sup> Our arguments and hypotheses as described here represent our pre-experimental expectation, based on theory and related literature, of a *positive* effect of activist pressure on compliance. Given that our experiment finds a *negative* effect instead, later in the paper (Section 6.1) we return to plausible *ex post* explanations for that.

is more likely to comply than a firm not receiving such pressure.

#### 2.3 Responsiveness to information about compliant peers

Multiple theoretical traditions suggest that organizational practices are likely to diffuse among peer organizations (for a review, see Naumovska, Gaba, & Greve, 2021), often through interorganizational networks (Davis & Greve, 1997). In our context, the reputational cost of noncompliance by a given firm is likely to be greater when its peer firms are compliant. The knowledge that peers have adopted a particular policy may also activate relational mechanisms among an organization's leaders, who may be compelled to adopt the same stance in a spirit of cohesion (Davis, 1994). Furthermore, if regulation is complex and costly to interpret, or if the actions required to comply are ambiguous, peer firms can serve as role models or provide valuable information relevant to the focal firm's decision about whether to comply.

A basic underlying condition for many such diffusion mechanisms is that a focal firm is aware of the practices of its peers. Although we are unaware of studies that have directly examined the impact of information about peer practices in the context of activism, prior research has examined related phenomena. Multiple observational studies have suggested that pressure from activists might trigger spillover effects on the behaviors of firms beyond the activists' targets, with peer information being one among many possible channels of influence (Briscoe, Gupta, & Anner, 2015; Soule, Swaminathan, & Tihanyi, 2014). Corporate social responsibility practices adopted by some firms due to some form of exogenous shock (such as "close call" shareholder resolutions) have also been associated with the subsequent adoption of similar practices by peer firms (Cao, Liang, & Zhan, 2019). In the accounting literature, some studies have similarly reported evidence consistent with peer effects in voluntary disclosure of managerial forecasts (Seo, 2021).<sup>3</sup>

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<sup>&</sup>lt;sup>3</sup> In a related stream of literature, the potential role of relying on peer effects for improving policy compliance has also been documented when studying individuals rather than firms as actors – such as in the behavioral economics literature related to compliance with tax policy (Castro & Scartascini, 2015; Del Carpio, 2014).

Extending the above arguments to our context of compliance with an ESG disclosure regulation, we expect that when activist pressure includes information on compliant peer firms, this will lead to a greater likelihood of compliance.

Hypothesis H2. A firm receiving activist pressure is more likely to comply when that pressure identifies peer firms that are already compliant than when no such peer firms are identified.

Building upon the above arguments, we further expect responsiveness to information about compliant peers to be stronger when these peers belong to the same institutional fields as the focal firm. Multiple studies of corporate ESG disclosure have emphasized institutional processes (Eesley & Lenox, 2006; Reid & Toffel, 2009; Marquis, Toffel, & Zhou, 2016), as these are well-suited to understanding behaviors whose primary function is to establish a company's broader social legitimacy (Suchman, 1995). Institutionalism suggests that firms belong to discrete institutional fields, and consequently face social pressures to behave similarly to other firms in those fields (DiMaggio & Powell, 1983). As a result of institutional pressures, organizations in the same social category are more likely to be particularly aware of each other, and also more likely to accept each other's behaviors as appropriate for themselves following both practical expediency and institutionalized rationales (Strang & Meyer, 1993). That is, when a compliant peer is in the same category, a firm is more likely to be aware of it, to regard it as a candidate for social comparison, and to understand compliance as appropriate for itself as well (Hoffman, 2001; Kim & Lyon, 2014).

Management research has in particular highlighted the importance of institutional fields defined by industry and geography. Firms in the same industry are likely to face similar conditions for adopting new practices and to be compared with one another; as a result, a firm's likelihood of adopting a new practice is significantly affected by the current prevalence of that practice within its industry (Deephouse, 1996; Raffaelli & Glynn, 2014). For similar reasons, firms in the same geographic community are also likely to converge in their practices (Davis

& Greve, 1997; Audia et al., 2006; Marquis, Glynn, & Davis, 2007). For instance, the disclosure decision of a logistics firm is more likely to be influenced by the disclosure status of another logistics firm than by that of a consulting firm, and a firm in London is more likely to base its own compliance decision on the compliance status of other London-based firms than on firms based in Manchester. Some researchers have further argued that co-membership in multiple institutional fields – i.e., industry *and* geography – should result in greater peer influence than if two firms were similar on only one of those dimensions (Marquis & Tilcsik, 2016).

Building on these institutional arguments, we also hypothesize that information about peer firms that belong to the same geography and/or industry will be more influential in encouraging compliance than information about other peer firms that do not.

Hypothesis H3. A firm receiving activist pressure that identifies compliant peer firms is more likely to comply when the peer firms are similar to it in terms of geography and/or industry than when they are not.

#### 3. EMPIRICAL CONTEXT: THE U.K. MODERN SLAVERY ACT 2015

The preservation of human rights is considered one of the most pressing humanitarian issues of our time, and a "grand challenge" for contemporary management and strategy (George et al., 2016). In 2011, United Nations Secretary Ban-Ki Moon proposed that companies' responsibilities include "ensuring that their activities do not cause or contribute to contemporary forms of slavery in the workplace, and taking steps to stop it from happening in supply chains and elsewhere" (United Nations, 2011). The UN Sustainable Development Goals identified the need to "take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour" (UN General Assembly, 2015: Sec. 8.7). Consequently, human rights have featured prominently in the development of most voluntary ESG disclosure frameworks,

such as the Global Reporting Initiative.

Human rights are also the focus of increasing corporate regulation (van der Lugt et al. 2020). The U.K. Modern Slavery Act 2015 (hereafter the "MSA Act"), which became law on March 26<sup>th</sup> 2015 and serves as the research context for our study, was among the first of several government regulations requiring businesses to make disclosures related to human rights.<sup>4</sup> Specifically, Section 54 (titled "Transparency in Supply Chains"; see appendix for full text) requires that firms meeting certain criteria "must prepare a slavery and human trafficking statement for each financial year of the organization" (hereafter "MSA statement") (U.K. Parliament 2015). The two criteria are that a given firm: (1) has operations in the U.K., and (2) has annual operating revenue exceeding £36 million.<sup>5</sup> Section 54 also requires that if the firm has a website, "it must (a) publish the slavery and human trafficking statement on that website, and (b) include a link to the slavery and human trafficking statement in a prominent place on that website's homepage" (U.K. Parliament 2015).

The MSA Act thus clearly defined the set of U.K.-based firms required to publish an MSA statement as well as the publication procedure for such disclosures. However, it did not include any provision for the government to monitor or enforce compliance, instead explicitly delegating these roles to private activists. While in principle the U.K. government could have forced firms to comply through judicial action, government officials indicated that they did not intend to do so. For instance, during debate on the proposed law the Parliamentary Under-Secretary of State for the U.K. Home Department explained that "the Government believes *it is for civil society* to put pressure on businesses that are not doing enough to eliminate modern slavery from their supply chains." (U.K. Parliament, 2014; emphasis added). The MSA Act

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<sup>&</sup>lt;sup>4</sup> To be more precise, the MSA Act defined general rules and requirements, and was followed by the release of more specific guidelines by the U.K. Home Office, which is responsible for implementation of the law. Thus, details of the MSA Act span two documents: the MSA Act legislation itself (U.K. Parliament 2015), and regulatory guidance published just a few months later by the U.K. Home Office (U.K. Home Office 2015).

<sup>&</sup>lt;sup>5</sup> These criteria are similar to those for ESG disclosure laws elsewhere, such as France's *Grenelle 2* law.

setting therefore provides an excellent empirical context to test our hypotheses about how activism impacts compliance with ESG disclosure regulation.

#### 4. DATABASE CONSTRUCTION AND EXPERIMENT DESIGN

#### 4.1 Identification of firms required to comply with the MSA Act

The first step of our research design was to identify the population of firms required to comply with the MSA Act according to the criteria described in the law. As no such list of firms, official or otherwise, was readily available, we started to build a list ourselves by relying on proprietary databases of firms published by business information providers Orbis and Capital IQ. In each database, we searched for U.K.-based firms meeting the MSA eligibility criterion of annual operating revenues exceeding £36 million in at least one of the three fiscal years 2015, 2016 or 2017. We retained only those firms that could be identified in both Orbis and Capital IQ so that we would subsequently have access to relevant variables from both sources.

This initial database of firms, which included information on each firm's name, website, and revenues, was matched to administrative data published by Companies House, the official U.K. government registrar of firms, to identify each firm's two-digit Standard Industrial Classification (SIC) code and registered headquarters address. Addresses were further matched to U.K. administrative data on geographic "travel to work" (TTW) areas, a geographic unit defined by economic connectedness.<sup>6</sup> These steps yielded an interim database of 13,755 firms legally required to publish an MSA statement.

### 4.2 Building the final experimental sample of non-compliant firms

Having built our overall database of firms that were required to comply with the MSA Act, we needed to next identify the subset of these firms that were not already compliant, i.e.,

<sup>6</sup> The U.K. government resources we relied on were the Office for National Statistics and the National Statistics Postcode Lookup (<a href="https://geoportal.statistics.gov.uk/datasets/fd4d376782994b1ca2316a2fd0649315/about">https://geoportal.statistics.gov.uk/datasets/fd4d376782994b1ca2316a2fd0649315/about</a>). The TTW areas are determined by the U.K. Office for National Statistics based on economic connectedness, and are comparable to Metropolitan Statistical Areas (MSAs) or Core Based Statistical Areas (CBSAs) in the U.S.

that had not published any MSA statement at the time of our experiment. To accomplish this, we collaborated with the Business & Human Rights Resource Centre (BHRRC), a widely recognized human rights NGO. Shortly after the MSA Act was passed, BHRRC launched a public "Modern Slavery Registry" to track compliance. It built and maintained this registry through a two-pronged approach. First, it published a general (i.e., non-targeted) invitation for firms to submit their MSA statements to the registry. Second, it developed a proprietary methodology through which it conducted its own regular internet searches for MSA statements, updating its registry as new statements were discovered.

We matched our database of 13,755 eligible firms with BHRRC's registry, while also managing a team of research assistants to assist BHRRC in improving the coverage and quality of its data. Of the 13,755 firms, 2,911 (21%) were found to already be compliant with the MSA Act as of August 2018, i.e., the time of our field experiment.<sup>8</sup> These firms were therefore dropped from further consideration for our experiment. We additionally dropped firms for which there did not exist at least one already-compliant peer firm that matched on both geographic location (TTW area) and industry (two-digit SIC code).<sup>9</sup> Our experimental sample was comprised of the 7,484 firms that remained following these steps.

#### 4.3 Design of the field experiment

Our experimental intervention consisted of a letter sent using Royal Mail, the U.K.'s domestic postal service. <sup>10</sup> The letter was printed on the official letterhead for BHRRC's "Modern Slavery

<sup>&</sup>lt;sup>7</sup> BHRRC describes itself as a "fair intermediary" that takes a collaborative approach to "build transparency, strengthen accountability, and empower human rights advocates." A common method by which it engages with firms is through "approaches," or requests for corporate comment on accusations made by other civil society actors (which BHRRC often tracks and publishes on its website).

<sup>&</sup>lt;sup>8</sup> In initial analyses, we explored the association of firm variables with compliance prior to our intervention. One finding was that pre-experiment compliance rates were on average greater for larger firms, which motivates our use of firm revenues as a control variable in regression analysis later in the paper. We also found significant heterogeneity across locations and industries, and therefore include fixed effects for both in our regressions.

<sup>&</sup>lt;sup>9</sup> These inclusion criteria ensured that for every firm in our sample, it would be possible to implement even our most restrictive experimental condition, i.e., a list of compliant peers matching on both location and industry.

<sup>&</sup>lt;sup>10</sup> As our project did not involve direct interaction with, or data collection on, human subjects, it did not require formal IRB review (see <a href="https://www.federalregister.gov/documents/2017/01/19/2017-01058/federal-policy-forthe-protection-of-human-subjects">https://www.federalregister.gov/documents/2017/01/19/2017-01058/federal-policy-forthe-protection-of-human-subjects</a>). Our IRB administrator confirmed this: "As long as you will not interact with

Registry" project, sealed in a plain envelope, and sent to each firm's official address as recorded by U.K.'s Companies House. All letters were mailed on Tuesday, September 11, 2018. Figure 1 provides a detailed overview of our experimental design.

#### [Insert Figure 1 here]

As summarized in Table 1, we randomly assigned each of the 7,484 non-compliant firms in our sample into one of six groups: G1 ("Control"), G2 ("Letter without peers"), G3a ("Letter with random peers"), G3b ("Letter with geography peers"), G3c ("Letter with industry peers") and G3d ("Letter with geography-industry peers"). Firms in group G1 were not sent any letter and served as a control group. Firms in group G2 were only sent a "baseline" letter containing background information about the MSA Act and notifying the firm of its requirement that they publish an MSA statement. For firms in conditions G3a-G3d (collectively referred to as G3), the baseline letter was accompanied by an additional page containing a list of compliant peers who had already published an MSA statement. The full mailing for one such firm is shown in Figure 2.<sup>11</sup>

#### [Insert Figure 2 here]

We identified peer firms through a list approach in which each firm assigned to one of these conditions was presented with a list of up to ten peers who were already compliant (Reigen 1982). For firms where more than ten peers met the criteria for possible inclusion in the letter, the peer firms listed in the letter were selected at random from one of four groups: all compliant peers (G3a), compliant peers from the same TTW area (G3b), compliant peers sharing the same SIC code (G3c), or compliant peers from the same TTW area *and* sharing the same SIC code (G3d). For firms for which 10 or fewer peers met the criteria for inclusion, all

11 The recipient firm for this particular letter belonged to group G3a ("Random peers"). The letter therefore includes a list of ten already-compliant peers drawn at random from different locations and industries.

individuals at the company and/or obtain any private identifiable information about individuals at the company, this project would not meet the threshold for research with human subjects."

of these peer firms were included. 12 Compliant peers were listed in random order in all four conditions.

#### [Insert Table 1 here]

#### 4.4 Measurement and analysis of post-intervention compliance

To measure post-intervention compliance, we built a second, cross-sectional database of compliant firms as of June 2019, nine months after our experimental intervention (i.e., the mailing date for the letters). The nine-month period was chosen based on the advice of our research partner, who suggested that this was a reasonable amount of time for targeted firms to develop and publish MSA statements in response to the letters.

Our process of building this post-treatment database in June 2019 was similar to the process we had followed when constructing our initial sample of non-compliant firms nine months earlier (i.e., in August 2018). We first matched the firms in our experimental sample with the most current version of BHRRC's Modern Slavery Registry. In addition, we became aware of and gained access to another public directory of MSA statements published by Transparency in Supply Chains (TISC), a social enterprise with a mission of "ending corruption, supply chain labour abuses and modern slavery." Matching the TISC directory with our database surfaced 578 firms that we had incorrectly identified as non-compliant preexperiment – either as they had already issued an MSA statement that BHHRC had missed, or were simply subsidiaries of larger firms that were in fact already in compliance. Since these 578 firms were incorrectly included in our experimental sample, we dropped these to arrive at our final sample of 6,906 firms for further analysis (Figure 1). The first sample, we define our

<sup>&</sup>lt;sup>12</sup> Nearly all cases with fewer than 10 eligible peers involved firms in the condition with the most stringent inclusion criteria: "Letter with geographic & industry peers" condition (G3d). Lists in this condition had an average of 6.1 peers. All other conditions that included peer information (G3a-G3c) had an average number of 9.7 or more peers. As further explained in another footnote later in the paper, our analyses included robustness checks to ensure that compliance rate differences across groups were not driven by peer lists that had less than 10 firms.

<sup>&</sup>lt;sup>13</sup> Because our randomization was conducted independently of the TISC data, no statistical bias is introduced by removing these observations and analyzing the remaining dataset as if these firms had not been included

formal dependent variable, *MSA Statement*, as 1 if an MSA statement was found for a given firm in June 2019, and as 0 otherwise.<sup>14</sup>

#### 5. RESULTS

#### 5.1. Summary statistics and balance check

Table 2 provides summary statistics for our overall sample of 6,906 firms and for the subsamples assigned to each experimental condition. The balance generally observed across conditions suggests that our randomization worked as intended. The means across conditions are similar for the variables *firm revenue* (*In thousand GBP*) and *firm revenue growth* (per year in fractional terms), two potentially relevant controls given that a firm's size or growth rate might affect its propensity for ESG disclosure (Rowley, Shipilov, & Greve, 2017; Kim & Lyon, 2014). The means are also quite balanced for *geography pre-treatment compliance rate* as well as *industry pre-treatment compliance rate*, which respectively capture the extent to which peers in a focal firm's geography or sector were already compliant with the MSA Act pre-experiment. The table documents that the frequency distribution of firms across diverse locations (London, second-tier cities, third-tier cities, and rural towns) and industries (financial, manufacturing, professional services, wholesale and retail, and others) is also similar, again

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experimental sample at all (see, e.g., Fergusson et al., 2002). As expected, the removed firms were nearly balanced across conditions, resulting in a final sample that also remained balanced (see Table 1). As an additional check, we replicated our analysis while retaining these firms in the sample (with *MSA Statement* set to 1). This resulted in no changes to our main findings.

<sup>&</sup>lt;sup>13</sup> We rely on a binary variable to measure compliance because we only have cross-sectional data on whether or not a given firm had issued an MSA statement by June 2019, i.e., nine months after our experiment. We do not have longitudinal data on all the MSA statements, ruling out more fine-grained analysis of compliance timing.

<sup>&</sup>lt;sup>13</sup> As a more comprehensive check, we carried out pairwise t-tests for each of the 13 variables in Table 2 for the five treatment groups G2-G3d relative to the control group G1. Of the 65 t-tests that were carried out following this procedure (13 variables x 5 pairs of conditions), the equality of means could not be rejected in 60 cases at p=0.05, confirming that the sample is quite balanced, and that the randomization did work as expected. in the experimental sample at all (see, e.g., Fergusson et al., 2002). As expected, the removed firms were nearly balanced across conditions, resulting in a final sample that also remained balanced (see Table 1). As an additional check, we replicated our analysis while retaining these firms in the sample (with *MSA Statement* set to 1). This resulted in no changes to our main findings.

<sup>&</sup>lt;sup>14</sup> We rely on a binary variable to measure compliance because we only have cross-sectional data on whether or not a given firm had issued an MSA statement by June 2019, i.e., nine months after our experiment. We do not have longitudinal data on all the MSA statements, ruling out more fine-grained analysis of compliance timing.

consistent with a view that our randomization worked well. <sup>15</sup>

#### [Insert Table 2 here]

Having verified that randomization worked as intended, we now proceed to conduct a univariate comparison of compliance rates across conditions (Section 5.2) before validating and extending the key findings using a multivariate regression framework (Section 5.3).

#### 5.2 Univariate analysis of post-treatment compliance

We begin by reporting our univariate analysis of post-treatment compliance rates across the experimental conditions, which are graphically summarized in Figures 3a and 3b.

#### [Insert Figures 3a and 3b here]

Testing H1 involves examining the impact of sending the baseline letter, i.e., the letter without any information about compliant peers. Surprisingly, as shown in Figure 3a, the empirical results are the opposite of H1: comparing the "No letter" group (G1, the control group) with the "Letter without peers" group (G2), we find that the fraction of firms that published a statement within nine months of the experimental intervention was *lower* for the group that was sent the baseline letter. This difference is both statistically significant (a two-sided t-test rejects equality of means at p < 0.001) and economically meaningful (sample means are  $\mu_{G2}$ =28.9% vs.  $\mu_{G1}$ =38.6%). In other words, we find no support for H1. On the contrary, the baseline letter appears to have *reduced* the likelihood that a company subsequently published a statement.

To test H2, we compare post-intervention compliance in the baseline letter condition (G2) with pooled data from firms in all conditions that were sent a list of compliant peers in addition to the baseline letter (G3, which includes firms in conditions G3a-G3d). Consistent with H2, the post-experiment compliance rate is greater for G3 than for G2 (Figure 3b), the

16

<sup>&</sup>lt;sup>15</sup> As a more comprehensive check, we carried out pairwise t-tests for each of the 13 variables in Table 2 for the five treatment groups G2-G3d relative to the control group G1. Of the 65 t-tests that were carried out following this procedure (13 variables x 5 pairs of conditions), the equality of means could not be rejected in 60 cases at p=0.05, confirming that the sample is quite balanced, and that the randomization did work as expected.

difference being significant in both economic terms (sample means of  $\mu_{G3}$ =33.4% vs.  $\mu_{G2}$ =28.9%) and statistical terms (p = 0.004 for a two-sided t-test). Importantly, the increase from  $\mu_{G2}$  (28.9%) to  $\mu_{G3}$  (33.4%) is smaller than the initial drop from  $\mu_{G1}$  (38.6%) to  $\mu_{G2}$  (28.9%), with a formal t-test rejecting equality of means for G1 and G3 at p=0.001. In short, including a list of compliant peers in addition to the baseline letter *partially but not fully mitigates* the negative effect of sending the baseline letter.

Testing hypothesis H3 involves comparing the four individual conditions that include a list of peers (G3a-G3d). Recall that H3 predicts lower compliance in the "Letter with random peers" condition (G3a) than in any of the conditions where the peers matched with the focal firm on the geographic and/or industry dimensions: the "Letter with geography peers" condition (G3b), the "Letter with industry peers" condition (G3c), and the "Letter with geography-industry peers" condition (G3d). As Figure 3b shows, relative to the inclusion of peers drawn at random, peers drawn from the same geography produced a higher rate of compliance ( $\mu_{G3b}$ =36.8% vs.  $\mu_{G3a}$ =31.6%), as did peers drawn from the same geographyindustry combination ( $\mu_{G3d}=34.1\%$  vs.  $\mu_{G3a}=31.6\%$ ). However, the inclusion of peers drawn from the same industry versus at random showed a negligible difference (µ<sub>G3c</sub>=31.2% vs. μ<sub>G3a</sub>=31.6%). Further, formal t-tests are consistent with these comparisons, showing strong statistical evidence in support of rejecting the equality  $\mu_{G3b} = \mu_{G3a}$  (p = 0.007), somewhat weaker evidence in support of rejecting the equality  $\mu_{G3d} = \mu_{G3a}$  (p = 0.196), but once more practically no basis for rejecting the equality  $\mu_{G3c} = \mu_{G3a}$  (p=0.847). Taken together, the above findings present only partial support for H3: choosing proximate peers makes a significant difference only when the geographic dimension is involved.

It is worth highlighting two findings beyond our formal hypothesis testing. First, the letter listing compliant peers similar on just geography (G3b) was *not* less effective than the letter listing compliant peers similar on both geographic *and* industry (G3d). In fact, the post-

intervention compliance rate following the former ( $\mu_{G3b}$ =36.8%) was slightly *larger* than that for the latter ( $\mu_{G3d}$ =34.1%), although there is only weak statistical support for rejecting the equality  $\mu_{G3b} = \mu_{G3d}$  (p=0.166). Second, the compliance rate was lower in all four conditions involving a letter (G3a-G3d) than for the control group (G1). Pairwise t-tests present strong evidence in support of rejecting equality of compliance rates relative to the control for three of these four cases: G3a ( $\mu_{G1} = \mu_{G3a}$  rejected at p < 0.001), G3c ( $\mu_{G1} = \mu_{G3c}$  rejected at p < 0.001), and G3d ( $\mu_{G1} = \mu_{G3d}$  rejected at p = 0.023). Only the condition that included peers drawn just from the same geography (G3b) produced a compliance rate statistically indistinguishable from the compliance rate of the control group ( $\mu_{G1} = \mu_{G3b}$  can be rejected only at p=0.382). In short, this was the only treatment condition in which the inclusion of information about peers appears to have fully overcome the negative effect of sending a letter in the first place.

#### 5.3 Regression analysis of post-treatment compliance

We now employ a multivariate regression framework to establish the robustness of our findings from the univariate analysis (Table 3), and to further examine possible heterogeneity in these results across different kinds of firms using split sample analysis (Table 4).

The regression results reported in the first three columns of Table 3 include the indicator variables *Letter without peers* and *Letter with peers* (pooled) to capture the average treatment effect for firms in conditions "Letter without peers" (G2) and "Letter with peers (pooled)" (G3) respectively, with the control condition "No letter" (G1) being the omitted (reference) category. We estimate three variants of this model: Column 1 includes no controls, Column 2 adds firmlevel control variables, and Column 3 accounts for time-invariant heterogeneity across firms by including geography and industry fixed effects. In all three variants, the coefficient of *Letter without peers* is negative in sign, economically large, and statistically significant (representing a decrease of 9.6 percent points, 10.0 percent points and 9.7 percent points respectively in the post-intervention compliance rate, with p < 0.01 in all three cases). In other words, our

regression models consistently reproduce the strong *negative* effect on compliance found in our univariate analysis (Figure 3a), once more indicating that we do not have empirical support for hypothesis H1.

#### [Insert Table 3 here]

Examining hypothesis H2 involves comparing the coefficient estimates for *Letter without peers* and *Letter with peers (pooled)*. Consistent with H2, the latter is estimated to produce significantly higher (less negative) compliance (a difference of 4.5 percentage points in columns 1, 2 and 3; Wald test p<0.01 in all three models). As in the univariate analysis (Figure 3a), including peer information appears to partially, but not fully, mitigate the negative effect of sending the baseline letter in the first place: the coefficient of *Letter with peers (pooled)* is still negative and significant (a negative coefficient of between 5 and 6 percentage points in columns 1, 2, and 3; p<0.01 in all three models).

Columns 4, 5 and 6 in Table 3 replace the pooled indicator *Letter with peers (pooled)* with separate indicators for the four treatment conditions involving peers. Consistent with the univariate analysis (Figure 3b), the coefficient estimate in all three columns is the largest (i.e., least negative, and in fact statistically indistinguishable from zero) for *Letter with geography peers*. In the remaining three cases, the net effect of sending the letter, although smaller in magnitude than for the letter without peers, is still negative and significant: the magnitude being comparable for *Letter with random peers* and *Letter with industry peers* (with p < 0.01 for both in all three columns), and somewhat smaller for *Letter with geography-industry peers* (with p < 0.10 in all three columns). We thus again have only partial support for H3: relative to selecting the peers at random (G3a), drawing similar peers helps only when proximate peers are chosen to match either on geography (G3b) or on the geography-industry combination but not when they are chosen to match only on industry.

Table 4 presents results from several split sample analyses in order to help investigate

the robustness of our main findings. Specifically, we report results from models similar to Column 6 of Table 3, but using subsamples of firms that were above vs. below median on each of four dimensions: Firm revenues (In thousand GBP), Firm revenue growth, Geography pretreatment compliance rate, and Industry pre-treatment compliance rate. The negative effect associated with sending the baseline letter (i.e., rejecting Hypothesis 1) persists across all eight subsamples, the effect being large in magnitude (between 7.9 and 12.7 percent points) and statistically significant (p < 0.05) in all eight cases. Our main conclusion related to Hypotheses 2 and 3 also continues to hold across subsamples: including information about previously compliant peers helps the most when these peers are drawn from the same geography as the focal firm, with a generally smaller positive impact of peer information on compliance in the remaining three conditions involving peers.

#### [Insert Table 4 here]

#### 5.4 Exploratory analysis of MSA statement quality

In addition to measuring the binary outcome of compliance (i.e., *MSA statement*), we conducted an additional, exploratory analysis of whether published statements included explicit endorsement by the firm's board. Explicit board support was in fact a requirement of MSA but was uneven across actual disclosures. Although the MSA statements in our database are generally not in a form easily amenable to extracting information in an automated way, our partner NGO had already invested significant effort in coding information related to board involvement and shared these data with us for 1,491 of the 2,316 firms recorded as compliant

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<sup>&</sup>lt;sup>16</sup> In the *Geography pre-treatment compliance rate* models (columns 7 and 8), sample sizes differ significantly because the median firm on this dimension is in London (the geography with the largest number of firms). The comparison between these models remains qualitatively similar irrespective of whether London-based firms are included in the above-median group, below-median group or simply dropped.

 $<sup>^{17}</sup>$  The magnitude of this effect does seem to vary across samples, being greater for large firms than small firms, for low-growth firms than high-growth firms, for firms in high-compliance geographies than in low-compliance geographies, and for firms in high-compliance industries than in low-compliance industries. To examine the statistical significance of these differences, we estimated another regression model where the four variables used to construct our subsamples were instead included as interaction terms. We could rule out the equivalence of the above vs. below median estimates (at p < 0.10) only for one of the four cases, namely, large vs. small firms.

in our dataset. Using this information, we constructed a new indicator Explicit board backing, set to one if and only if a statement had been formally approved by the board and signed by one of the directors.<sup>18</sup>

Figures 4a and 4b present a univariate analysis of differences across conditions using explicit board backing as the dependent variable. Figure 4a shows a similar pattern for explicit board backing as for MSA statement earlier (see Figure 3a): the rate of explicit board backing decreased from the "control" group (G1) to the "Letter without peers" group (G2), but increased from the "Letter without peers" group (G2) to the aggregate "Letter with peers (pooled)" group (G3). In summary, the pattern of differences in board backing (conditional on compliance) appears to mirror differences in compliance described in our main analysis: the baseline letter is associated with lower rates of board backing, a decrease significantly mitigated in cases where the letter included a list of peers (although the detailed breakup of the effect across groups G3a-G3d is slightly different in Figure 3b versus Figure 4b).

#### [Insert Figures 4a and 4b here]

Overall, the above findings are consistent with a view that increased NGO scrutiny could have led firms to be less likely to publish disclosures as well as become more cautious when they did publish disclosures. In particular, published MSA statements for firms receiving the letters were less likely to have explicit board backing, perhaps to limit liability if their statements or the actions described therein were found lacking in some way.

#### 6. SUMMARY AND DISCUSSION

While it is common for regulators to rely on private activists to ensure appropriate corporate disclosure of ESG information, research offers limited causal evidence regarding the impact of

<sup>18</sup> Although we would naturally have preferred to have the data related to board backing for all firms issuing MSA

statements, the fact that our randomization was done independently of availability of these data allows for a meaningful analysis even with our given subset of firms. Nevertheless, it should be note that the findings might not generalize to firms for which we do not have the data since they might be systematically different.

activist pressure on ESG disclosure. Through a large-scale field experiment, we investigated the impact of two forms of activist pressure from a leading human rights NGO: relatively straightforward baseline communication pointing out that a given firm is not in compliance and urging it to comply, and more complex communication that also included information regarding compliance by peers. Surprisingly, relative to a control group of firms that received no letter, firms that received the baseline letter were subsequently *less* likely to disclose ESG information. Results from additional experimental conditions also suggest that including information about compliant peers partly, but not fully, mitigated the negative baseline finding. The most effective letters for compelling compliance were the ones in which the peers presented were drawn from the same geographic location as the focal firm, but not were not restricted to being drawn from the same industry.

As in many field experiments, some of our results might be specific to the context of our research. As the constraints of our setting prevent us from conducting follow-up experiments, we explore possible *post hoc* explanations that we hope will provide fruitful directions for further research.

#### 6.1 The negative baseline effect of sending a letter

One potential explanation for our baseline finding (related to H1) of a *negative* impact of activism on compliance is that firms receiving letters might have withheld disclosure to minimize the risk of being subsequently perceived as hypocritical. This explanation is similar to Carlos and Lewis' (2018) finding that firms with sustainability certifications may engage in "strategic silence" about these certifications in order to avoid heightened scrutiny. Kim and Lyon (2015) similarly describe that firms may engage in "brownwashing" when external scrutiny increases the potential costs of disclosing positive ESG-related information. Analogously, in our setting, an activist letter urging a firm to comply with an ESG disclosure regulation might have been perceived as a signal that such disclosure, if made, would be closely

scrutinized by civil society. If so, activist pressure may have produced an unintended chilling effect on disclosure.<sup>19</sup>

Another possible explanation for this unexpected result is that the baseline letter *reduced* the perceived penalty pertaining to non-compliance. For instance, firms might have feared more severe consequences than the public shaming threatened by the letter, if this letter were perceived as a commitment by civil society to a relatively lenient threat (versus potentially more costly action, such as a boycott). If so, ambiguity about the consequences of non-compliance may be a source of power for activists. Exploring the conditions under which this is the case is an opportunity for future research.

Yet another potential explanation for reduced compliance following receipt of the baseline letter is that if managers were intrinsically motivated to do better on ESG disclosure and performance, external pressure from activists might in fact diminish this motivation. ESG disclosure, like many other decisions, can result from both external pressure and intrinsic motivation (Dwenger et al., 2016; Shi & Connelly, 2018), in line with a broader behavioral science literature showing that increased focus on extrinsic motivation often crowds out intrinsic motivation (Gneezy & Rustichini, 2000).

Another possibility is that some of our findings are sensitive to perceptions of the specific NGO we partnered with. NGOs can differ significantly in their expertise as well as reputation for collaboration vs. aggressiveness (Minkoff 1999; Den Hond & Bakker 2007; Odziemkowska 2022a), and this can affect how firms respond to scrutiny by them. Odziemkowska (2022a) reports (in supplementary analysis accompanying her article) that the firms she studied were significantly more responsive to contention from radical rather than

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<sup>&</sup>lt;sup>19</sup> A similar mechanism has also been proposed by Delmas and Montes-Sancho (2011) in the context of corporate compliance with the international environment management standard ISO 14001, wherein seeking advice from compliance professionals led U.S. firms to, on average, reduce rather than increase compliance due to likely fears that divulging the associated information would increase the risk of litigation.

moderate NGOs. Similarly, in our setting, the same letter could potentially have elicited a different response if sent by an NGO that firms viewed differently.

Our findings could also be sensitive to the nature and wording of our communication, as message framing has been shown to influence behavior in general as well as in the context of ESG (Durand & Huysentruyt 2022).<sup>20</sup> The letter sent in this experiment highlighted the negative consequences of non-compliance, in line with what our partner NGO considered best practice as well as with prior research documenting that a threat or penalty framing can often be more effective than neutral or opportunity framing (De Neve et al., 2021; Meiselman, 2018; Shimeles et al., 2017). Yet others have also noted that framing effects are nuanced and context-dependent (Dutton & Jackson, 1987). Identifying the most effective framing for activist pressures on disclosure is an important issue requiring further research.

#### 6.2 The positive effect of including peer information in the letter

Our peer information results (related to H2) suggest that when activism included information about already-compliant peers, this increased the likelihood of compliance relative to the baseline treatment. These findings are related to prior experimental research examining the effect of peer information on socially beneficial *individual* behavior – including home energy conservation (Alcott, 2011) and voting (Nickerson, 2008). We extend this literature through a field experiment that considers how similar mechanisms might apply to firm-level behavior. In so doing, we also build upon the literature on the diffusion of organizational practices, which mostly relies on non-experimental studies (Naumovska et al., 2021). Our experimental approach extends this stream of work by presenting stronger causal evidence and demonstrating the potential of interventions to activate peer effects. We find the positive peer effects particularly striking in their contrast with our negative baseline finding.

<sup>&</sup>lt;sup>20</sup> In fact, our original proposal for this study did include additional experimental conditions to investigate the significance of framing effects, but our partner NGO preferred sending letters framed the same way to all firms.

Our comparison across types of peer groups (related to H3) also yields interesting results. Specifically, we find that information about compliant peers who were in the same geography had a stronger effect on subsequent compliance than did information about peers in the same industry. Furthermore, we were surprised to find that the most narrowly-defined peers were not necessarily the most effective at eliciting compliance: a letter containing a peer list drawn from the focal firm's geography *and* industry was less effective (at eliciting compliance) than a letter containing peers matched on geography alone, a finding that differs from prior institutional research (Marquis & Tilcsik, 2016).<sup>22</sup> The latter patterns might be explained if firms were already aware of the compliance status of peers in their geography-industry combination, or if SIC codes do not reflect the cognitive categories held by firms (Porac & Thomas, 1990). Formally examining such possibilities could be an interesting direction for future investigation.

#### 7. CONCLUSION

Appropriate ESG disclosure is essential for ensuring both financial and social accountability of firms. Prior research has made it clear that shareholder pressures wield significant power to compel ESG disclosure, and that behavioral interventions can compel behavior change in the public interest (Dellavigna & Linos, 2022; Delmas & Aragon-Correa, 2016). However, there is limited research examining the impact of pressures originating from activists like NGOs, which are often considered essential for enforcing compliance with ESG disclosure laws. Our research offers experimental evidence where activist pressure intended to improve ESG

<sup>&</sup>lt;sup>21</sup> As in many analyses involving categorical data, these estimates are likely sensitive to the degree of specificity by which administrative categories are defined. The average number of firms per TTW area is smaller than the number per SIC code, as our data encompass more TTW areas (131) than two-digit SIC codes (78). TTW areas are more concentrated: the largest location (London) contains 48% of all firms in our sample while the largest sector (SIC 70) contains just 15%.

<sup>&</sup>lt;sup>22</sup> We initially wondered whether this finding was an artifact of firms in narrower categories being more likely to have less peers than needed to have a full list of peers (ten firms). However, we ruled out this explanation as the findings remained robust to including an additional control variable for exact number of peers in the peer list as well as to simply dropping the observations for firms with less than ten firms in the peer list.

disclosure had the unintended consequence of suppressing it. We also find that providing peer compliance information had a positive mitigating effect, and that the exact magnitude of this effect depended on the specific peer group targeted.

In interpreting our findings, it is important to note that the exact social welfare consequences of reduced ESG disclosure may be ambiguous. For example, if reduced disclosure involves a reduction in the publication of sloppy or misleading statements (i.e., greenwashing), this might in fact be preferred from a societal perspective. One direction for research to investigate such possibilities further is through content analysis of published ESG statements. However, it is critical to recognize that the ultimate success of any effort to promote ESG disclosure should not be judged just by considering disclosure outcomes: disclosure is welfare-enhancing only if it leads to better ESG-related governance and management, and ultimately to improved ESG performance.

Overall, our study draws attention to the need to carefully scrutinize the effectiveness of private politics in ensuring desired ESG-related firm behavior. It also suggests the limits of relying on private politics, particularly concerning non-shareholder activists that may lack the disciplining power activist shareholders hold. We need more studies that investigate features that can improve the effectiveness of such activism, and more generally, identify pathways to improved corporate transparency on ESG issues and ultimately better ESG performance. We also hope that our study will motivate further research on effectiveness of activism and on how government regulators, activists and firms can interact most effectively as a system for societal accountability and progress.

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Table 1. The experimental conditions and the letter sent under each condition

Condition	Treatment		
G1: "No letter"	No letter (serves as the control group)		
G2: "Letter without po	eers"	Baseline letter (just a single page containing relevant information about the MSA Act)	
	G3a: "Letter with random peers"	Baseline letter + an additional page with information on up to 10 already compliant firms randomly selected from across all geographic locations and industries	
G3: "Letter with peers (pooled)"	G3b: "Letter with geography peers"	Baseline letter + an additional page with information on up to 10 already compliant firms randomly selected from only those matching the given firm on geographic location (TTW code)	
	G3c: "Letter with industry peers"	Baseline letter + an additional page with information on up to 10 already compliant firms randomly selected from only those matching the given firm on industry (two-digit SIC code)	
	G3d: "Letter with geography-industry peers"	Baseline letter + an additional page with information on up to 10 already compliant firms randomly selected from only those matching the given firm on both geographic location (TTW code) and industry (two-digit SIC code)	

Table 2. Variable means and their balance across the experimental conditions

Group of firms:	Gl	G2	G3a	G3b	G3c	G3d	Full sample
Experimental condition:	No letter (control)	Letter without peers	Letter with random peers	Letter with geo peers	Letter with ind peers	Letter with geo-ind peers	All conditions
Firm revenues (In thousand GBP)	4.38	4.42	4.39	4.46	4.44	4.44	4.42
	(1.26)	(1.29)	(1.29)	(1.31)	(1.29)	(1.25)	(1.28)
Firm revenue growth	0.156	0.163	0.138	0.130	0.142	0.134	0.144
	(0.730)	(0.679)	(0.622)	(0.637)	(0.627)	(0.631)	(0.655)
Geography pre-treatment compliance rate	0.217	0.216	0.216	0.216	0.215	0.216	0.216
	(0.035)	(0.032)	(0.034)	(0.033)	(0.031)	(0.032)	(0.033)
Industry pre-treatment compliance rate	0.206	0.208	0.211	0.208	0.204	0.206	0.207
	(0.057)	(0.055)	(0.056)	(0.054)	(0.055)	(0.053)	(0.055)
Kind of geographic location:							
London (largest U.K. city)	0.461	0.496	0.460	0.506	0.487	0.490	0.483
	(0.499)	(0.500)	(0.499)	(0.500)	(0.500)	(0.500)	(0.500)
Second tier city (> 500k population)	0.160	0.142	0.160	0.133	0.156	0.170	0.154
	(0.367)	(0.350)	(0.366)	(0.340)	(0.363)	(0.376)	(0.361)
Third tier city (>100k but <500k population)	0.343	0.342	0.352	0.336	0.328	0.304	0.334
	(0.475)	(0.475)	(0.478)	(0.473)	(0.470)	(0.460)	(0.472)
Rural town (<100k population)	0.036	0.020	0.028	0.025	0.028	0.036	0.029
	(0.185)	(0.140)	(0.166)	(0.155)	(0.164)	(0.188)	(0.167)
Kind of industry:							
Financial	0.145	0.143	0.140	0.146	0.150	0.144	0.145
	(0.352)	(0.351)	(0.347)	(0.354)	(0.358)	(0.351)	(0.352)
Manufacturing	0.094	0.080	0.076	0.088	0.087	0.077	0.084
,	(0.293)	(0.271)	(0.265)	(0.283)	(0.282)	(0.267)	(0.277)
Professional services	0.302	0.298	0.314	0.288	0.277	0.310	0.298
•	(0.460)	(0.458)	(0.464)	(0.453)	(0.448)	(0.463)	(0.458)
Wholesale and retail	0.180	0.198	0.199	0.206	0.216	0.204	0.201
	(0.385)	(0.398)	(0.400)	(0.405)	(0.412)	(0.403)	(0.400)
Other sectors	0.278	0.281	0.271	0.272	0.269	0.265	0.273
	(0.448)	(0.450)	(0.445)	(0.445)	(0.444)	(0.441)	(0.445)
N	1,154	1,144	1,159	1,140	1,157	1,152	6,906

Notes. Standard deviations in parentheses. The summary statistics are reported using the full sample of 6,906 firms employed in our final analysis, with the exception of the variable *firm revenue growth* that could not be calculated due to missing data for 151 (just over 2%) of the observations. Geographic locations were categorized based on the population of the corresponding TTW area in 2014 (<a href="https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/traveltoworkareaanalysisingreatbritain/2016">https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/traveltoworkareaanalysisingreatbritain/2016</a>). Industry categories were defined using each company's 2-digit SIC code: Financial (60-67), Manufacturing (20-39), Professional services (70-89), Wholesale and retail (50-59), and Others. For the balance check, we carried out pairwise t-tests for each of the 13 variables for each of the five treatment groups G2-G3d relative to the control group G1. In the 65 t-tests following this procedure (13 variables x 5 pairs of groups), the equality of means could not be rejected in 60 cases (p=0.05), indicating that the sample is quite balanced and that the randomization did work as expected.

Table 3. Regression analysis of post-intervention compliance rates: full sample of firms

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	MSA Statement					
Sample:	All Firms					
Letter without peers	-0.096	-0.100	-0.097	-0.096	-0.100	-0.097
1	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)
Letter with peers (pooled)	-0.051	-0.055	-0.052		, ,	•
	(0.016)	(0.016)	(0.016)			
Letter with random peers					-0.076	-0.077
					(0.020)	(0.020)
Letter with geography peers					-0.021	-0.016
					(0.020)	(0.020)
Letter with industry peers					-0.076	-0.071
					(0.020)	(0.020)
Letter with geography-industry peers					-0.047	-0.044
					(0.020)	(0.020)
Firm revenues (In thousand GBP)		0.038	0.039	-0.070	0.038	0.039
		(0.005)	(0.005)	(0.020)	(0.005)	(0.005)
Firm revenue growth		-0.000	0.003	-0.017	0.000	0.003
		(0.009)	(0.009)	(0.020)	(0.009)	(0.009)
Geography pre-treatment compliance rate		0.506		-0.074	0.507	
		(0.175)		(0.020)	(0.175)	
Industry pre-treatment compliance rate		0.355		-0.044	0.355	
_	0.004	(0.104)	0.440	(0.020)	(0.104)	
Constant	0.386	0.039	0.213	0.386	0.040	0.214
	(0.014)	(0.048)	(0.025)	(0.014)	(0.048)	(0.025)
Observations	6906	6,755	6,740	6906	6,755	6,740
R-squared	0.003	0.017	0.054	0.005	0.018	0.056
Geography FE	No	No	Yes	No	No	Yes
Industry FE	No	No	Yes	No	No	Yes

Notes. Standard errors in parentheses. About 2% of the observations were dropped in models (2), (3), (5) and (6) due to missing values for the variable *firm revenue growth*. All results are robust to excluding that variable from all the models.

Table 4. Regression analysis of post-intervention compliance rates: split samples of firms

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	MSA Statement	MSA Statement	MSA Statement	MSA Statement	MSA Statement	MSA Statement	MSA Statement	MSA Statement
Sample:	Large Firms	Small Firms	High-Growth Firms	Low-Growth Firms	High-Compliance Geography Firms	Low-Compliance Geography Firms	High-Compliance Industry Firms	Low-Compliance Industry Firms
								_
Letter without peers	-0.108	-0.086	-0.079	-0.124	-0.127	-0.081	-0.083	-0.108
	(0.030)	(0.028)	(0.029)	(0.028)	(0.034)	(0.025)	(0.029)	(0.028)
Letter with random peers	-0.091	-0.065	-0.076	-0.088	-0.105	-0.065	-0.083	-0.067
	(0.030)	(0.027)	(0.029)	(0.028)	(0.034)	(0.025)	(0.029)	(0.028)
Letter with geography peers	-0.016	-0.023	0.017	-0.057	-0.064	0.011	-0.009	-0.011
	(0.029)	(0.028)	(0.029)	(0.028)	(0.035)	(0.025)	(0.029)	(0.028)
Letter with industry peers	-0.059	-0.083	-0.032	-0.122	-0.127	-0.039	-0.042	-0.088
	(0.029)	(0.028)	(0.029)	(0.028)	(0.034)	(0.025)	(0.029)	(0.027)
Letter with geography-industry peers	-0.038	-0.044	-0.034	-0.063	-0.078	-0.021	-0.061	-0.027
	(0.030)	(0.028)	(0.029)	(0.028)	(0.034)	(0.025)	(0.029)	(0.028)
Firm revenues (In thousand GBP)	0.015	0.041	0.026	0.035	0.033	0.042	0.042	0.036
	(0.009)	(0.009)	(0.008)	(0.007)	(0.008)	(0.006)	(0.007)	(0.007)
Firm revenue growth	0.000	0.003	-0.014	0.120	0.006	0.001	0.026	-0.008
_	(0.013)	(0.012)	(0.011)	(0.042)	(0.018)	(0.010)	(0.015)	(0.011)
Constant	0.348	0.200	0.268	0.284	0.313	0.159	0.209	0.211
	(0.052)	(0.038)	(0.042)	(0.041)	(0.044)	(0.031)	(0.037)	(0.034)
Observations	3,370	3,341	3,351	3,356	2,471	4,260	3,363	3,363
R-squared	0.068	0.084	0.073	0.099	0.063	0.056	0.077	0.063
Geography FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes. Standard errors in parentheses. About 2% of the observations were dropped due to missing values for the variable firm revenue growth. All results are robust to excluding that variable from all the models.

Figure 1. Design and execution of the field experiment

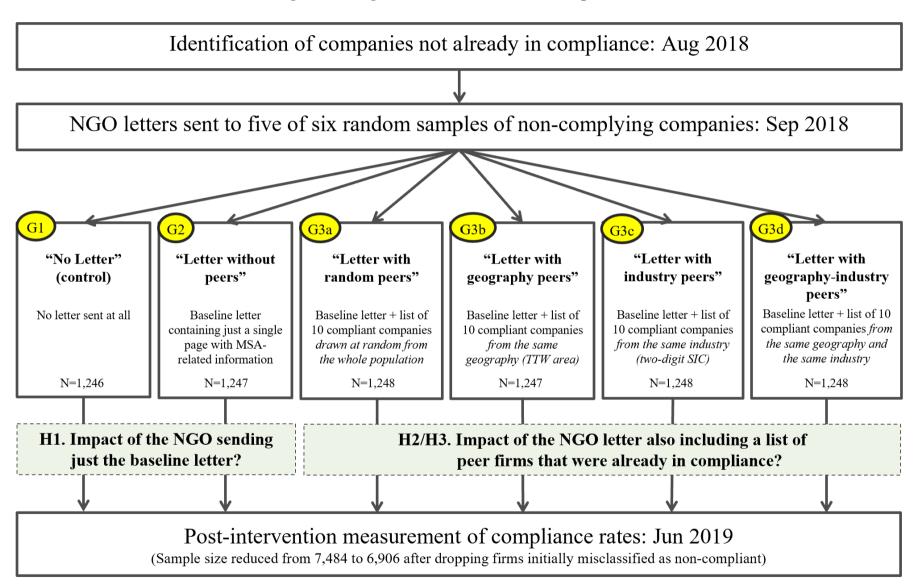


Figure 2. Letter sent by the NGO to a firm in treatment group "Letter with random peers" (G3a)





#### **Examples of Companies with Statements**

Provided below, for your reference, are examples of companies that have already published modern slavery statements in compliance with the U.K. Modern Slavery Act of 2015.

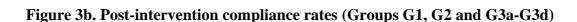
Company Name DWR CYMRU CYFYNGEDIG	Metro area Cardiff	Industry Water collection, treatment and supply	<u>Link to Published Statement</u> http://www.dwrcymru.com/en/Reading_Room_Lib rary/Company-Statements.aspx
RUSSELL INVESTMENTS LIMITED	London	Financial service activities, except insurance and pension funding	https://russellinvestments.com/- /media/files/emea/legal/the-uk-modern-slavery- act-2015.pdf
FISH BROTHERS (SWINDON) LIMITED	Swindon	Wholesale and retail trade and repair of motor vehicles and motorcycles	https://www.fish-bros.co.uk/anti-slavery- policy.aspx
AXA SERVICES LIMITED	London	Office administrative, office support and other business support activities	http://www.axa.co.uk/modern-slavery-act/
CHA TECHNOLOGIES GROUP PUBLIC LIMITED COMPANY	Manchester	Manufacture of textiles	http://www.chatechnologies.com/wp- content/uploads/2018/01/Modern_Slavery_Statem ent.pdf
FIRST CENTRAL INSURANCE MANAGEMENT LIMITED	Crawley	Activities auxiliary to financial services and insurance activities	https://content.1stcentralinsurance.com/document s/modernslaverystatement/modern%20slavery%2 0statement%20-%20april%202017.pdf
TRUST INNS LIMITED	Preston	Food and beverage service activities	https://www.trustinns.co.uk/pdf/Trust%20Inns%2 0Modern%20Slavery%20Statement.pdf
HEXADEX LIMITED	Lincoln	Activities of head offices; management consultancy activities	http://www.hexadex.com/modern-slavery-and- human-trafficking-statement/
SWEETT (UK) LIMITED	London	Architectural and engineering activities; technical testing and analysis	http://www.sweettgroup.com/wp- content/uploads/2016/07/Modern-Slavery- Statement.pdf
BRIGHTSTAR 20:20 UK LIMITED	Crewe	Telecommunications	https://s3.amazonaws.com/public- brightstar/uploads/2018/05/22142418/Modern_Sla very_Statement_Signed_6-27-2017.pdf

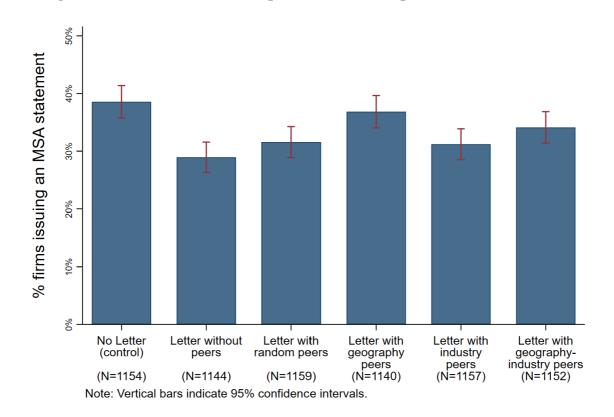
These companies' statements can be viewed by typing the links above. Alternatively, type the company name and "modern slavery statement" into a search engine.

www.modernslaveryregistry.org C Powered by the Business & Human Rights Resource Centre

Note: Vertical bars indicate 95% confidence intervals.

Figure 3a. Post-intervention compliance rates (Groups G1, G2 and G3)





No letter (control) (N=272)

No letter (N=208)

No letter without peers (pooled) (N=1012)

Figure 4a. Board backing of the issued statements (Groups G1, G2 and G3)

Note: Data coverage is not comprehensive. Vertical bars indicate 95% confidence intervals.

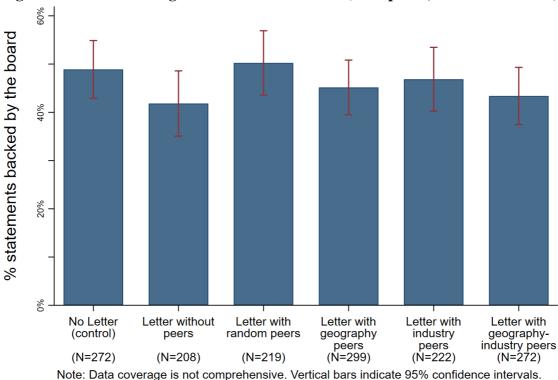


Figure 4b. Board backing of the issued statements (Groups G1, G2 and G3a-G3d)

#### Appendix: Section 54 of the U.K. Modern Slavery Act 2015 (MSA)

#### 54 Transparency in supply chains etc

- (1) A commercial organisation within subsection (2) must prepare a slavery and human trafficking statement for each financial year of the organisation.
- (2) A commercial organisation is within this subsection if it-
  - (a) supplies goods or services, and
  - (b) has a total turnover of not less than an amount prescribed by regulations made by the Secretary of State.
- (3) For the purposes of subsection (2)(b), an organisation's total turnover is to be determined in accordance with regulations made by the Secretary of State.
- (4) A slavery and human trafficking statement for a financial year is-
  - (a) a statement of the steps the organisation has taken during the financial year to ensure that slavery and human trafficking is not taking place—
    - (i) in any of its supply chains, and
    - (ii) in any part of its own business, or
  - (b) a statement that the organisation has taken no such steps.
- (5) An organisation's slavery and human trafficking statement may include information about—
  - (a) the organisation's structure, its business and its supply chains;
  - (b) its policies in relation to slavery and human trafficking;
  - (c) its due diligence processes in relation to slavery and human trafficking in its business and supply chains;
  - (d) the parts of its business and supply chains where there is a risk of slavery and human trafficking taking place, and the steps it has taken to assess and manage that risk;
  - (e) its effectiveness in ensuring that slavery and human trafficking is not taking place in its business or supply chains, measured against such performance indicators as it considers appropriate;
  - (f) the training about slavery and human trafficking available to its staff.
- (6) A slavery and human trafficking statement-
  - (a) if the organisation is a body corporate other than a limited liability partnership, must be approved by the board of directors (or equivalent management body) and signed by a director (or equivalent);
  - (b) if the organisation is a limited liability partnership, must be approved by the members and signed by a designated member;
  - (c) if the organisation is a limited partnership registered under the Limited Partnerships Act 1907, must be signed by a general partner:
  - (d) if the organisation is any other kind of partnership, must be signed by a partner.
- (7) If the organisation has a website, it must-
  - (a) publish the slavery and human trafficking statement on that website, and
  - (b) include a link to the slavery and human trafficking statement in a prominent place on that website's homepage.
- (8) If the organisation does not have a website, it must provide a copy of the slavery and human trafficking statement to anyone who makes a written request for one, and must do so before the end of the period of 30 days beginning with the day on which the request is received.
- (9) The Secretary of State-
  - (a) may issue guidance about the duties imposed on commercial organisations by this section;
  - (b) must publish any such guidance in a way the Secretary of State considers appropriate.
- (10) The guidance may in particular include further provision about the kind of information which may be included in a slavery and human trafficking statement.
- (11) The duties imposed on commercial organisations by this section are enforceable by the Secretary of State bringing civil proceedings in the High Court for an injunction or, in Scotland, for specific performance of a statutory duty under section 45 of the Court of Session Act 1988.
- (12) For the purposes of this section—

"commercial organisation" means-

- (a) a body corporate (wherever incorporated) which carries on a business, or part of a business, in any part of the United Kingdom, or
- (b) a partnership (wherever formed) which carries on a business, or part of a business, in any part of the United Kingdom,

and for this purpose "business" includes a trade or profession; "partnership" means-

- (a) a partnership within the Partnership Act 1890,
- (b) a limited partnership registered under the Limited Partnerships Act 1907, or
- (c) a firm, or an entity of a similar character, formed under the law of a country outside the United Kingdom;

"slavery and human trafficking" means-

- (a) conduct which constitutes an offence under any of the following-
  - (i) section 1, 2 or 4 of this Act,
  - (ii) section 1, 2 or 4 of the Human Trafficking and Exploitation (Criminal Justice and Support for Victims) Act (Northern Ireland) 2015 (c. 2 (N.I.)) (equivalent offences in Northern Ireland),
  - (iii) [section 1 or 4 of the Human Trafficking and Exploitation (Scotland) Act 2015 (asp 12) (equivalent offences in Scotland), or]
- (b) conduct which would constitute an offence in a part of the United Kingdom under any of those provisions if the conduct took place in that part of the United Kingdom.