Coordinated Engagements*

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Abstract: We study the nature of and outcomes from coordinated engagements by a prominent international network of long-term shareholders cooperating to influence firms on environmental and social issues. We find a two-tier engagement strategy, combining lead investors with supporting investors, is effective in successfully achieving the stated engagement goals and subsequently improving target performance. An investor is more likely to lead the collaborative dialogue when the investor's stake in the target firm is higher and when the target is domestic. Success rates are elevated when the lead investors are domestic, supporting investors are international, and the investor coalition is influential.

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Coordinated Engagements

In October 2018 the CEO of BlackRock, the world's largest asset manager, announced that his company intends to become a global leader in sustainable investing (on.ft.com/2yCwI2H). In the same month Yale University announced that the USA's second largest endowment would update its ethical investment policies relating to socially irresponsible investments (investments.yale.edu/social-responsibility). A few weeks earlier Cambridge University had revealed that almost all the professional staff of Europe's largest university endowment had left after pressure to divest from fossil fuel investments (on.ft.com/2OyTHSh). Also in October 2018, the CEO of the Norwegian Government Pension Fund had to address controversy as to whether the world's biggest sovereign wealth fund should divest entirely from energy stocks (on.ft.com/2yHYNpo). Policy reviews like these have recently emerged from efforts to influence financial institutions, highlighting that certain environmental and social concerns create undiversifiable systemic risks.

The value of worldwide assets that are managed according to responsible investment criteria is estimated by the Global Sustainable Investment Alliance (GSI-Alliance.org) to be $23 trillion. Moreover, non-profit organizations such as the Coalition for Inclusive Capitalism (Inc-Cap.com) and Focusing Capital on the Long Term (FCLTglobal.org) aim to engage business, government and civil society leaders in making capitalism more sustainable and inclusive, and to encourage responsible behavior among a membership that includes leading investment managers, asset owners, corporations and advisors. Environmental and social (E&S) issues are important in the institutional investment world, and the pressures are increasingly global. Yet collaborative initiatives on E&S issues are still underpinned by sentiment, as opposed to being supported by evidence.

This paper examines coordinated engagements by investment organizations on Corporate Social Responsibility (CSR) principles. It is the first to study the nature and benefits of coordinated, collaborative and international efforts to influence investee companies on environmental and social issues. We examine the targeting and engagement strategy, success rates and financial outcomes of institutional investors who have coordinated their engagements through the Collaboration Platform provided by the Principles for Responsible Investment (PRI). Founded in 2006 and supported by the United Nations, PRI has become the leading network for investors with a

commitment to responsible ownership and long-term, sustainable returns. Indeed, PRI is presently the largest investor initiative in the world. The PRI Collaboration Platform provides objectively collected and timely recorded data on Environmental, Social and Governance (ESG) engagements.

The focus of our study is coordinated engagements that emphasize E&S concerns. Our dataset is comprehensive and includes 31 PRI coordinated engagement projects initiated between 2007 and 2015, of which 25 were completed by the time (mid-2017) data was provided to us. Each project is initiated and coordinated by PRI but carried out by a group of investment organizations, including investment managers, asset owners, and service providers. A project involves engagements with numerous targets – on average, with 53 public firms across the globe. Each target in a project may be engaged by a different group of owners, managers and service providers. On average, the group comprises 26 different organizations whom we refer to collectively as 'investors'.

We define an engagement sequence as a dialogue with a specific target firm in relation to a particular project. Our sample includes a total of 1,671 engagement sequences targeting 964 unique publicly listed firms located in 63 countries. These engagements encompass a total of 224 unique investment organizations from 24 countries, representing aggregate assets under management (AUM) of $24 trillion and an average AUM of $115 billion. Most of the engagements are conducted privately. The average and median elapsed time from the initiation to completion of these projects is around two years. Companies targeted for engagement are most frequently in the manufacturing sector, followed by the infrastructure and utilities, wholesale & retail trade, and mining sectors. Targeted companies are most commonly located in the United States, United Kingdom, France and Japan.

We compare targeted companies with their peers from the same country and industry sector in the year before they were engaged. We find that coordinated groups of investors target large firms with a lower sales growth rate and a higher percentage of sales from foreign countries, relative to their peers. This suggests that (international) reputational concerns play an important role in target firms. Target firms also have lower stock return volatility, lower insider ownership, higher long-term institutional ownership, and higher equity holdings from the engaging group, as compared to peer firms. This reflects the investors' scale and highlights the power of their aggregated "voice". The lower share of insider ownership allows for less entrenchment of the target's management team, and

less resistance to proposed advancements in responsible behavior. We also find that target firms have higher overall ESG ratings, relative to the peers. This is consistent with PRI's proactive approach of identifying potential ESG issues in an industry or region, and targeting bellwether firms to set examples, rather than reactively fixing ESG problems as they arise.

Collaborative engagements aim to exploit the cooperating partners' resources, skills and expertise to gain advantage. First and foremost, by pooling resources and influence, active investors can achieve greater success via an amplified voice and expanded impact. Second, engaging as a coordinated group also improves engagement efficiency by utilizing expertise from peers who are more knowledgeable about an issue or target company, and by sharing research costs. Third, collaboration in ESG engagements facilitates risk-sharing among active owners.

Collaborative engagements also face challenges. First, there is the free-rider problem: costs may be borne by a small group of committed and resourceful investors, while benefits are shared by all investors in the group. Relatedly, competition between institutions (through reputation and superior performance) makes collaboration difficult and requires incentives in the coalition to be set carefully. Second, coordination is difficult and time-consuming: investors may have different objectives and interests, so achieving agreement among many investors from diverse geographic and cultural backgrounds may prolong the process. Third, there is a potential regulatory barrier in certain markets that can dissuade investors from behaving as a "concert party". We argue that, as an explicit third-party coordinator, the PRI Collaboration Platform can help investors to exploit the advantages and overcome the challenges of jointly pursuing shared objectives.

We document that, in collaborative engagements, leadership is decisive. Success rates are elevated substantially, and financial and accounting performance are improved, when there are lead investors who head the dialogue and there are supporting investors collaborating with the lead. We refer to this as a "two-tier engagement strategy." Similar structures are also observed in other shareholder initiatives,[1] as well as other segments of capital markets

[1] An example is the recent "Climate Action 100+" initiative (climateaction100.org). This initiative, aligned with the Paris Agreement signed in 2015, involves engaging with firms to improve governance on climate change, curb emissions and strengthen climate-related financial disclosures. The initiative is coordinated by five partner organizations including PRI: (i) Asia Investor Group on Climate Change (AIGCC), (ii) Ceres, (iii) Investor Group on Climate Change (IGCC), (iv) Institutional Investors Group on Climate Change (IIGCC), and (v) PRI.

such as venture capital (VC) and syndicated loans.[2]

The two-tier engagement strategy in our sample has also some parallels with "wolf-pack activism," the alleged coalition of institutional blockholders (typically hedge funds) who implicitly coordinate their interventions with target firms.[3] Brav, Dasgupta and Mathews (2018) model that wolf-pack members, as delegated portfolio managers, are incentivized to overcome the free-rider problem through their reputational concerns about attracting investment flows. Doidge et al. (2017) discuss how explicit coordination mechanisms for institutional investors in engaging target firms for governance issues may help overcome the free-rider problem.

As discussed in detail in Dimson, Karakaş and Li (2015), the objectives and methods of E&S engagement differ from traditional shareholder activism by institutions and from hedge fund (or more generally, entrepreneurial) activism. Traditional shareholder activism and hedge fund activism typically focus on issues related to the interests of shareholders only, whereas E&S engagement addresses the interests of a broader range of stakeholders. However, reputational concerns on attracting fund flows – the primary incentive mechanism helping reduce the free-rider problem in the wolf-pack activism setting of Brav, Dasgupta and Mathews (2018) – arguably play a more important and apparent role in E&S engagement. The implicit coordination, generated endogenously through reputational concerns, potentially explains the formation of coalitions in PRI. Such concerns are further alleviated by usage of the PRI Collaboration Platform because it facilitates explicit coordination of E&S interventions.

Being part of the coalition is a mutual decision made by both PRI and the investor. To understand the economic incentives behind formation of the coalition, we analyze the determinants of becoming a collaborating organization at the investor level. We find that an investor's stake in (or exposure to) the target firm plays a limited role in the decision to join a coalition. This could be due to two opposing effects of ownership on

[2] The two-tier engagement strategy resembles the collaborative style VC investors with general partners as the leading investors and limited partners as the supporting investors. In syndicated loan markets, the lead arranger establishes a lending relation with a borrower and heads the contract negotiation. The lead arranger then looks for participant lenders to fund part of the loan (Sufi (2007)).

[3] In wolf-pack activism, one or more sizeable blockholder acts as a "lead" activist, with other smaller blockholders serving as supporting "wolf-pack" members (Brav, Dasgupta and Mathews (2018)). The implicit, rather than explicit, coordination among the hedge fund activists in the US helps to avoid the regulatory costs of acting in concert.

engagements. On the one hand, investors may prefer to engage alone if their ownership is relatively high (or in a coalition if their ownership is relatively low); on the other hand, engagements also require certain clout over the firm, which is mainly achieved through ownership. An investor is more likely to join engagements when the target is domestic. This may due to reputational concerns among a local client base as well as the shared interests, ease of communication and information sharing between the investor and local firms.

Before the initiation of projects with a two-tier structure, PRI usually forms a roundtable of core investors that discuss and identify themes for engagements. Most participants subsequently become the lead investors in engagements, while some play a supporting role. Like the decision of being part of the coalition, the decision about leading an engagement is also mutually agreed by PRI and the lead. We thus next analyze the determinants of becoming a lead investor. Engagement costs are substantially higher for lead investors relative to supporting ones, as the former bear the major responsibility of all monthly meetings with target firms, reporting back to PRI, as well as coordinating with supporting organizations. However, the benefits of engagements are mostly shared across both lead and supporting investors. Therefore, to achieve a favorable engagement outcome and overcome disincentives from free-riding concerns within the coalition, lead investors need to have skill, motivation, and "skin in the game". Consistent with this view, we find that an investor is more likely to lead the collaborative dialogue when its exposure to the target firm is higher. A larger holding in shares of the target firm increases the credibility and strength of the investor's voice and the potential benefits of the engagement. In addition, an investor is more likely to lead when the target firm is domestic, and thereby benefits from lower logistical costs, better local knowledge, and higher benefits of engagement through reputational enhancement. The evidence also suggests that leading a coordinated engagement is costly and time-consuming: an investor is less likely to lead if the firm is already busy with leading other ongoing PRI projects.

After the lead investors are decided in each engagement, PRI and the lead turn to other investors for additional support. Supporting investors are either invited by PRI or the leader to join an engagement, or they could voluntarily join via PRI's website. To overcome free-riding from supporting investors, PRI expects supporting organizations to contribute actively to the engagement, although in an abridged way relative to the lead.

Conditional on knowing the lead investor(s) in the coalition, we next analyze the determinants of being a supporting investor. Interestingly, we find that target firm being domestic no longer plays an important role in determining the supporting signatory. This could reflect PRI's preference for having globally diversified supporting investors in coalitions, which we illustrate below. Past and ongoing engagement experience decreases the likelihood of being a supporting investor. This is consistent with the costly nature of engagements and with PRI's expectation for supporting investors to be actively involved in each engagement.

We next analyze the determinants of successful engagements after taking into account the characteristics of the coalition group. Relying on the success measures recorded by PRI, we find that the influence of the group, as represented at the initiation of the engagements by their (i) aggregate holding in the target firm, (ii) total AUM, and (iii) average employee rating (a proxy for firm culture), is positively related to engagement success. Having lead investor(s) increase the success rates substantially, from 16 to 25%, depending on the specification. In the absence of a lead, we also find that success rates are substantially improved when pension plans constitute a majority of the coalition. Analyzing the effect of location on engagement success, we find that PRI coordinated engagements have a higher success rate when the lead investor is from the same country as the targeted firm, and when the supporting investors are foreign. The location effect is substantiated by the influence of the local lead and global supporters, as proxied by their aggregate holdings and total size. These findings are consistent with the conjecture that an important incentive to join a coalition is to enhance reputation by demonstrating voice, which may attract future fund flows from E&S conscious investors. These findings also suggest that leadership, local expertise, and global impact all play important roles in achieving successful engagement outcomes.

We now turn to the changes in financial performance of the target firms after engagements. We use abnormal annual buy-and-hold returns and annual cumulative abnormal returns (CARs) over the MSCI benchmark to measure stock market performance. Analyzing performance conditioning on leadership, we observe a significant increase in abnormal stock returns at target firms within three years after the engagement initiation, relative to the pre-engagement level for the subsample of engagements with lead investors. In contrast, we observe no change in target firms' financial performance among engagements without a lead. This finding provides further support

that leadership in coalitions is associated with a positive shareholder outcome. Similarly, analyzing performance conditioning on engagement outcome, we find abnormal returns for the subsample of successful engagements, especially for the engagements with lead investors. In contrast, we find a decrease in stock performance among target firms with unsuccessful engagements, especially among those without a leader. Collectively, these findings suggest that coordinated engagements are shareholder value-enhancing, especially when engagements are headed by a lead investor.

Lastly, we investigate the return on assets (ROA), sales growth, stock return volatility, and the investors' holdings in the target firm following the (conclusion of) engagements. We find significant improvements in ROA, sales growth and lead investors' holdings, and decrease in the stock return volatility and supporting investors' holdings in the target firm after the engagements conclude successfully. This contrasts with unsuccessful engagements, which are not followed by any material change in ROA, sales growth, or lead holdings in the target firm.

The objectives of PRI-coordinated dialogues are achieved in a substantial proportion of cases. Since firm performance is improved when engagements are successful, we infer that the activities coordinated by PRI are value-enhancing. Our evidence indicates that, for maximum effect, coordinated engagements should preferably be headed by a leader that is well suited linguistically, culturally and socially to influencing target companies. Supporting investors are also crucial, and they should ideally be major investment managers who have influence because of their scale, ownership and geographic breadth. Our paper makes new contributions in four ways. First, to our knowledge this is the only research paper examining the nature and impact of internationally coordinated engagements on E&S issues. Second, we analyze the dynamics of coordination and highlight the role of free-riding and reputational concerns within the collaboration. Third, by avoiding the data and methodological limitations that afflict many CSR studies, we add reliable additional evidence of the link between responsible investing and financial performance. Finally, our paper extends the substantial literature on shareholder activism and corporate governance.

In the following section, we summarize the literature that is relevant for the main questions considered in this paper. In Section 2, we describe the engagements dataset that we use to address these questions. In Section 3, we

report our analysis and results. In Section 4, we present our conclusions. Appendix A provides brief case studies that illustrate the nature of engagements coordinated through the PRI Collaboration Platform, Appendix B lists the criteria that PRI uses to evaluate the success of projects, and Appendix C provides the variable definitions and information sources used in our analyses.

1. Literature Review

1.1 Shareholder action on ESG

Academic work on active ownership and investor engagement on ESG/CSR issues has recently been surging. However, there are still major gaps in the literature. A decade ago, Peloza and Falkenberg (2009, p.95) reported that "*The lack of a conclusive business case for corporate social responsibility (CSR) is at the heart of the ongoing debate over the role of business in solving social and environmental problems."* The absence of a business case reflects not only a lack of convincing examples, but also the fact that we do not know which interventions are more likely to be effective. The authors continued, "*Although the link between CSR activities and firm financial performance is still debated, research suggests that the relationship depends, at least in part, on how the CSR initiative is executed*" (ibid). The knowledge gap about how to intervene with a target company is almost as large today as it was a decade ago.

Most published research fails even to indicate whether investors who pursue a responsible E&S approach can anticipate an enhanced or impaired financial return, including over the very long term. An exception is Dimson, Karakaş and Li (2015), a study of 2,152 engagements by a single investment firm with US target companies. The authors reported that successful engagements were followed by positive abnormal returns, improved performance and governance, and increased institutional ownership, while unsuccessful engagements generated zero abnormal returns. However, that was a clinical study of a single investment organization in a single country, and a natural question is how representative the investor might be. Prior research has had a profound home bias, typically examining efforts emanating from the US, UK or the Netherlands,[4] and reflecting the location of the investor. Yet

[4] See, e.g., Smith (1996), Carleton, Nelson and Weisbach (1998) and Barber (2007); Becht et al. (2009, 2017b), Bauer, Clark and Viehs (2014), Dimson, Karakaş and Li (2015) and Hoepner et al. (2018); and Barko, Cremers and Renneboog (2018), Lafarre and Van der Elst (2018), and Kuijpers et al. (2015), respectively.

most institutional investors hold financial assets that are distributed around the world, and many observers believe that encouragement of socially responsible behavior should embrace emerging as well as developed markets. There is a growing conviction that the biggest challenges confronting active owners are of truly global relevance.

Many scholars, and practitioners, also perceive a conflict between shareholder activism and social activism. Shareholder activism generally addresses conflicts between managers and shareholders and seeks to create value for shareholders. Barber (2007, p.66) asserts that "*portfolio managers… can also abuse their position by pursuing actions that advance their own moral values or political interests at the expense of investors (social activism)"* (parentheses in original). Using CSR performance as a proxy for social capital (i.e., for trust between shareholders and managers), and shareholder governance proposals as a proxy for shareholder activism, Dimitrov and Gao (2017) argue that shareholders of firms with higher CSR scores play a constructive role in efforts on corporate governance. Homanen (2018) finds that depositors withdraw funds from banks found to be financing firms involved with non-financial scandals and interprets this as the disciplining and monitoring role of the depositors.

The private nature of certain engagements makes it more challenging for researchers to analyze them. A detailed clinical study was undertaken by Carleton, Nelson and Weisbach (1998). They gained access to a collection of engagement correspondence from 1992–1996 between the Teachers Insurance Annuity Association—College Retirement Equities Fund (TIAA-CREF) and various target companies. The correspondence provided the first "large sample" (45 firms) of private negotiations; in most cases TIAA-CREF was able to reach an agreement with their targets to implement the requested changes. The fact that TIAA-CREF negotiated with the target almost never became public knowledge, and it seems that these solo negotiations were very successful in inducing change. While some initiatives may best be conducted privately by a single asset owner, this raises the question of whether broader collaborative engagement may be superior. Although other papers such as Smith's (1996) study of engagements by the California Public Employees' Retirement System (CalPERS) included negotiated agreements, they are less informative about the nature of these private agreements. Becht et al. (2009) analyze the private engagements of a UK activist fund and find that the fund outperforms its benchmarks, largely through its value-enhancing engagements rather than stock picking.

1.2 Collaborative engagements

There appear to be significant benefits associated with collaborative engagements. Indeed, the common rationale for inter-organizational collaboration is to exploit the collaborating partners' resources, skills and expertise to gain *collaborative advantage* (Huxham and Vangen (2005)). First and foremost, by pooling resources and influence, investors can achieve greater success via increased voting power and an amplified voice (Hirschman (1970)). Gillan and Starks (2000) find that shareholder proposals on corporate governance issues sponsored by coordinated groups gain substantially more support than those sponsored by individuals. Black and Coffee (1994) discuss the institutional coalition formation in the UK, by conducting a series of interviews with senior officers in major British institutions and provide anecdotal evidence. They observe that communication and coalition formation among institutional investors has for a long time been more acceptable in the UK than in the US, and coordination costs are lower in the UK. Giannetti and Laeven (2009) also mention some anecdotal evidence that public pension funds tend to coordinate their activities on corporate governance of target firms in episodes of activism. Dimson, Karakaş and Li (2015) find that collaboration with other shareholders and/or stakeholders significantly improves the success rate of engagements, especially those on environmental and social topics. Second, engaging as a coordinated group also improves engagement efficiency by borrowing expertise from group members who are more knowledgeable about an issue or target company, and by sharing research costs. This is especially efficient for smaller investors who are too resource-constrained to afford an in-house engagement team. Third, collaboration in ESG engagements facilitates risk-sharing among active owners. For instance, an active owner may be reluctant to engage a target firm on a solo basis due to the risk of impairing existing business relations; engaging as part of a larger coalition may enable active owners to share this risk.

However, collaborative engagements also face many challenges, which may lead to *collaborative inertia* rather than *collaborative advantage* (Huxham and Vangen (2005)). The first challenge is the free-rider problem: costs may be borne by a small group of committed and resourceful investors, while benefits are shared by all participating in the coalition. Second, coordination is difficult and time-consuming: investors may have different objectives and interests, so achieving agreement within a group from diverse geographic and cultural backgrounds may prolong the process. The delayed action may also reduce the effectiveness of engagements on time-sensitive

issues. Third, potential regulatory barriers in certain markets could dissuade investors from behaving as a concert party. We argue in the next section that having a third-party coordinator, such as the PRI Collaboration Platform team, can substantially reduce these challenges.

Studying a sample of international hedge fund activists, Becht et al. (2017a) report that engagements by multiple investors perform better than those by a single organization. Doidge et al. (2017) analyze private engagements on corporate governance issues by a Canadian investor collective action organization, Canadian Coalition for Good Governance (CCGG). The CCGG initiatives are associated with an increase in the likelihood for target firms to adopt corporate governance reforms on majority voting, say-on-pay, and compensation structure, and stock market reactions to such reforms are more favorable. Consistent with our findings, Doidge et al. (2017) document that CCGG is more likely to target large firms in which their collective voting power is higher.

Focusing on wolf-pack activism, Brav, Dasgupta and Mathews (2018) highlight the implicit coordination among heterogeneous block investors. In this form of activism, it is asserted that a coalition of institutional blockholders (typically hedge funds) implicitly coordinate their interventions with the target firms where one blockholder acts as a "lead" activist, with the other blockholders as supporting "wolf-pack" members. In their model, wolf-pack members are delegated portfolio managers who compete for capital from clients. The wolf-pack members are incentivized via the reputational gains from being recognized as skilled institutions, which in turn attracts investment flows and helps overcome the free-rider problem of collective action. Brav, Jiang and Li (2018) analyze mutual fund voting in proxy contests and find evidence that dissident shareholders with small block holdings (e.g., 5–10% of the target firm) "pick friends". That is, in their decision to engage in a proxy fight, they select a target firm with a pro-activist shareholder base. Such collaboration is crucial particularly in contested elections during proxy fights.

1.3 Role of institutional investors

Collaboration among investors requires effective commitment. A coordinated group of institutional investors, potentially including both index investors and active managers, can provide the necessary mechanism. Long-horizon investors can be motivated by their role as universal owners (Hawley and Williams (1997)). It is in their

interest to reduce negative externalities and to exploit positive externalities in the firms that they hold. This can transform competition between investment managers and asset owners into collaboration and can alleviate the free-rider dilemma that might otherwise impede coordinated engagements with investee companies.

Starks, Venkat and Zhu (2018) provide evidence that long-horizon investors prefer firms with better ESG practices. Gibson-Brandon and Krüger (2018) find that that the environmental footprint of long-horizon investors, which is calculated through the stock-level environmental sustainability scores at the institutional investor portfolio-level, is positively related to the risk-adjusted returns as the investment performance. These long-horizon investors are likely to be large. Engagements studied in our paper are conducted by a large number of these major asset owners, for whom we have information on their size and shareholdings.

Bebchuk et al. (2017) analyze the cooperation between activists and target firms and find that a settlement is more likely when an activist has a credible chance of obtaining a board seat in a proxy fight. These findings of Bebchuk et al. (2017) resonate with ours, illustrating that the chances of success in E&S engagements increase with investor influence which, in our study, is proxied by the holdings in the target, and assets under management. Dyck et al. (2018) find evidence that institutional investors demand stronger E&S performance from the firms in which they invest worldwide, and both financial and cultural/social aspects play an important role in the actions of institutional investors. This is in line with Hart and Zingales (2017), who argue that asset managers should invest according to the preferences of their investors.

2. Institutional Background and Engagement Data

2.1 Principles for Responsible Investment (PRI)

A large proportion of asset owners and investment managers have now expressed commitment to investment responsibility by signing up to the United Nations-sponsored Principles for Responsible Investment (UNPRI.org). By signing up as signatories, institutions pledge to follow PRI's six principles, one of which is to become active owners and incorporate ESG issues into their ownership policies and practices. By December 2018 PRI had 2,205

signatories from 67 countries, representing over $80 trillion in assets under management (AUM). Our dataset is drawn from PRI's initiative to support investor engagements on ESG issues with corporations. PRI aims to be "*an enabling organization that may help to overcome barriers to collective action by providing an infrastructure for investors to work with one another, and through maintaining time-continuity of investors' engagement, thus resulting in continued pressure on targeted firms*" (Gond and Piani (2013)). Shortly after the Principles were launched in 2006, the PRI Collaboration Platform (then known as the PRI Clearinghouse) was initiated as a forum for shareholder engagement and as a vehicle for alliances among institutional investors and their advisors. This facility rapidly became the world's largest platform for coordinated engagement activities.

PRI's governance and incentive structures are likely to uphold the objectivity of the data it collects. PRI states that it is "*truly independent. It encourages investors to use responsible investment to enhance returns and better manage risks, but does not operate for its own profit; it engages with global policymakers but is not associated with any government; it is supported by, but not part of, the United Nations."* (unpri.org/pri/about-the-pri). The board of PRI is composed of one independent chair, that is confirmed by a signatory vote, and ten directors: seven elected by asset owner signatories, two elected by investment manager signatories, and one elected by service provider signatories. The Chair and all elected Directors are the Statutory Members of the Company. There are two Permanent UN Advisors to the Board, representatives from the PRI's founding UN partners: UN Global Compact and UNEP Finance Initiative.

PRI's funding is provided primarily via the annual membership fee payable by all signatories, with additional funding via grants from governments, foundations and international organizations. PRI does not receive any financial support from the United Nations. The annual signatory fee is scaled according to each signatory's category, type and assets under management. For instance, the 2018/19 fee for assets owners with AUM above $50 billion, investment managers with AUM above $50 billion, and service providers with staff number above 200, is £8,440, £13,670, and £8,400, respectively. The fees are lower for smaller asset owners, investment managers, and service providers, and are discounted for asset owners headquartered in emerging markets or developing economies.

2.2 The Collaboration Platform

The PRI Collaboration Platform exists to facilitate investor engagement with target companies, and potentially with regulators and other actors in the business world. The companies that are targeted for shareholder activism are largely identified by signatories. For most of our research period, engagement begins after one or several investors identify an issue relating to a company or sector and determine that there is a case for change (Piani (2013) p.8). The investor(s) may then talk with peers and with PRI to explore the scope for engaging collaboratively. In recent times members of the Collaboration Platform team have taken an increasing role in building such coalitions.

Posts to the Collaboration Platform vary in their intensity and resource requirements. Some are demanding, such as proposals for in-depth research, opportunities to participate in investor-company engagements, and requests to join in policy and regulatory dialogue. Other posts may be simpler, such as requests to co-sign letters to companies or to support imminent shareholder resolutions. The PRI Executive actively coordinates a number of collaborative engagements with listed companies worldwide, provides administrative support to investor coalitions, and facilitates web-based virtual meetings and other facilities to support investor initiatives. The Platform can also be used by signatories for direct collaboration that bypasses the PRI Secretariat.

For this study, we examine the engagement projects initiated and coordinated by PRI. Having the PRI Collaboration Platform as a third party to coordinate ESG engagements substantially reduces the costs associated with collaborative engagements. First, PRI and its signatories work with local supervisors and policymakers to facilitate effective action. For example, although anti-trust legislation does not primarily target collaborative engagement on ESG issues, there is some regulatory ambiguity and uncertainty and PRI's team and its investors have sought clarification on such issues.[5] Second, the PRI Collaboration Platform has a team of experts with knowledge of environmental and social issues. They proactively identify issues and invite institutions to

[5] In the UK, the Financial Conduct Authority has clarified in its code of conduct that conversations between investors do not constitute acting in concert. Therefore, the UK has a more permissive regime for inter-shareholder dialogue regarding investee companies. In the US, investors informally acting on an issue without disclosure may be regarded as being in violation of Regulation Fair Disclosure (Reg FD).

participate and cooperate on its platform. After several years' experience of working together, PRI found it helpful to identify one or more lead investors to drive forward an initiative, with a larger number of supporting investors providing more limited resources. Such an engagement structure alleviates the coordination problems. Further, the free-rider problem in engagements through PRI Collaboration Platform would be reduced as the major costs of coordination and research are borne by PRI, which is funded through a fee paid by all signatories.

It is intriguing that these initiatives have led to a structure that bears some resemblance to private equity structures.[6] Kaplan and Strömberg (2009) explain that private equity funds are organized as "*partnerships in which the general partners manage the fund and the limited partners provide most of the capital. The limited partners typically include institutional investors, such as corporate and public pension funds, endowments, and insurance companies, as well as wealthy individuals. The private equity firm serves as the fund's general partner.*" PRI and its signatories have similarly concluded that it is desirable to identify participants as *leading organization(s)* (signatories who post the invitation and/or commit significant time and resources) or as *supporting organizations* (signatories supporting the initiative by lending their names and allocating limited resources). Piani (2013) elaborates on PRI's engagement principles, process, and targets, and presents case studies on carbon disclosure, ESG communication/disclosure, anti-corruption, and supply-chain issues.

The PRI Collaboration Platform has at least six desirable attributes for research. First, engagements are logged on a platform provided by a third party and cannot be revised retrospectively by an entity involved in the study. Second, each engagement is supported by multiple organizations, which extends the potential insights from the research compared to a study focusing on a single investor. Third, each engagement draws on contributions from multiple institutions including asset owners, investment managers, and service providers. Fourth, the dataset is truly global, embracing investors from many countries and cultural backgrounds, which allows us to see whether previous findings—based mostly on US and UK data—are applicable in other environments. Fifth, the engagement projects have differing organizational structures: half are cooperative with investors volunteering on

[6] Of course, these benefits of cooperation are not limited to E&S engagements, and Fisch and Sepe (2018) note more broadly that "in the current information-rich economy, empowered shareholders increasingly resemble VC investors in their ability to provide value-added knowledge on top of capital and discipline" (p.54).

an ad hoc basis, whereas half are headed by a small number of leaders who initiate and proactively coordinate the activity. Finally, there is a dated record for each engagement, and there is no need to rely on scores or ratings from ESG advisory businesses.[7] To our knowledge, the PRI Collaboration Platform is the only source of global data that meets these criteria.

2.3 Coordinated Projects

PRI maintains the Collaboration Platform database and monitors the progress of each initiative. We have been provided with detailed records on every initiative, together with a record of whether each engagement was successful. The evaluation of success varies from project to project and from target firm to target firm within each project. PRI keeps a record of objective targets for the measurement of success. This could be a minimum level of improvement in target companies' scores on criteria like anti-corruption measures, labor standards, gender equality, and human rights; achieving a specified reduction in carbon emissions; embarking on environmental disclosure and action; or signing up to certain initiatives such as Communication on Progress (COP) by the UN Global Compact (unglobalcompact.org/participation/report/cop). For most engagement projects, PRI collaborated with an external organization such as CDP to evaluate whether the stated engagement goals had been achieved (see CDP.net).

Our dataset covers 31 PRI-coordinated engagement projects in four broad areas as defined by PRI: Environmental, Social, Governance, and (reflecting the United Nations origins of PRI) work related to the UN Global Compact (UNGC) and its sustainable development goals (SDGs). However, PRI-linked engagements on Governance and UNGC are inherently related to Environmental and Social issues, and hence the effective engagement areas in our dataset address E&S issues. Projects have a limited life, and if the issues raised by a sequence of engagements persist or expand, a "Phase 1" project can be followed by a "Phase 2" project addressing related matters. Table 1 summarizes these projects. They started as early as January 2007 and six are still ongoing

[7] See Doyle (2018) for a report of recent comparison and criticism of ESG ratings. The report finds significant disparities in the accuracy, value, and importance of individual ESG ratings, for reasons including: (i) disclosure limitations and lack of standardization, (ii) company size bias, (iii) geographic bias, (iv) industry sector bias, (v) inconsistencies between rating agencies, and (vi) failure to identify risk. In a similar sprit, Yang (2018) argues that ESG ratings have limited informative signals about important stakeholder outcomes.

at the time when the data was compiled by PRI, namely February 2017. The mean (median) project duration is 716 (730) days.

Insert Table 1 about here

The unit of analysis in this study is an engagement sequence, defined as one target firm engaged in a project. Engagement sequence starting and ending dates are thus defined as project dates. These 31 projects consist of 1,671 unique engagement sequences with basic information on target firms. The number of target firms or engagement sequences in each project ranges from 7 (Sudan engagement) to 163 (COP4) with a sample mean (median) of 54 (40). The target firms are located in a variety of geographic regions. The average project engages targets from 18 different countries. Investors could choose to engage with different target firms within the same project. Therefore, the number of investment institutions differs for each engagement sequence within the same project. Table 1 also reports the average number of investors involved in each project.; on average there are 24 investors participating in each dialogue.

For each project, success is evaluated by the PRI Collaboration Platform team based on scorecards prepared for each target firm in pre- and post-engagement periods. The scorecards cover areas from policy and strategy, implementation, disclosure and other material objectives. Success is recorded when there is a significantly increased post-engagement score relative to the pre-engagement score. Since our sample includes six ongoing projects, their final success cannot be evaluated. In two cases (Palm Oil Growers and Human rights in extractives), success could be judged by PRI using interim reports, and these evaluations are included in the dataset. Appendix A provides examples of PRI-coordinated projects and how success was evaluated for each project. Appendix B lists the success measures used for all 31 projects.

The success rate, for those engagements where success has been evaluated ranges from 0% (Forest Footprint Disclosure 2012) to 92.3% (Palm Oil Growers) (untabulated). A reason for the low success rates in Forest Footprint Disclosure projects is that target firms lack the data and information to form the reporting frame at the time of the project completion. For the Palm Oil Growers project, although it is still ongoing, an interim evaluation was conducted in mid-2016. A reason for the high success rate in this project is that companies operating upstream

(producers, processors, and traders) were more likely to make a commitment than those operating downstream, i.e., buyers. This may be due to upstream companies being more consumer-facing firms and hence facing more media pressure. In total, PRI can evaluate the success of 1,016 engagements in our sample with an average success rate of 42.1% (untabulated). This number is comparable to the success rate of 45.2% documented in Dimson, Karakaş and Li's (Table 4, 2015) subsample of the E&S engagements in collaboration with other shareholders.

The new dataset used in this study has been assembled by us in careful and painstaking collaboration with PRI and has not been academically analyzed previously. Our engagement dataset does not rely on static and delimited measures for CSR performance, such as the third-party ESG scores considered by Ferrell, Liang and Renneboog (2016). As advocated by Margolis, Elfenbein and Walsh (2009, p.28), our engagement dataset avoids "*ratings of admired companies and company insiders' self-reported impressions*." We respond to Edmans' (2012, 2018) challenge that prior work fails to address the impact of responsible investing on risk-adjusted investment performance over the long run, and that US-centric findings may not apply in different settings. Our methodology recognizes that E&S-challenged sectors may cluster in particular geographic locations (Atta-Darkua and Dimson (2018)). Our detailed data enable us to provide new insights on engagement by asset owners with the firms they own around the world. We are also able to explore the impact of appointing a lead investor, the value of having a local or an international team of investors, and the influence of broader factors like cultural attributes on engagement success. Furthermore, each engagement in our data has a unique group of participants with differing roles, many of whom are involved multiple times in our dataset. We can obtain insights on the dynamics of coordinated engagements by analyzing the economic incentives behind each investor's decision to lead or to participate in a particular engagement, holding the characteristics of an investor constant.

3. Analysis

3.1 Attributes of target companies

To understand the characteristics of the target companies, we merge our dataset with WorldScope/Compustat Global and North America using the ISIN code and company name. We require market capitalization information

in the fiscal year before the start date of an engagement sequence. This reduces our sample size from 1,806 engagements to 1,671 engagements. In Table 2 we provide summary statistics on the location of engaged companies (Panel A), their industrial classification (Panel B).

Insert Table 2 about here

Panel A of Table 2 lists the 63 countries in which target firms are domiciled. This list differentiates our global study from single-market investigations of shareholder engagement. The geographic dispersion of collaborative engagements is highlighted by the distribution of targets across different regions of the world. More than three-quarters of engagements involve countries other than the US and the UK. A more granular look confirms the worldwide focus of PRI signatories. Panel A reports that there are over 100 engagement sequences in each of the United States, France, and United Kingdom. There are 50–100 engagement sequences in Japan, Germany, Canada, India, Spain, Brazil, and Italy. There are 30–50 engagement sequences in Australia, South Korea, Sweden, Switzerland, China, South Africa, the Netherlands, and Pakistan. A further 16 countries have a double-digit number of engagement sequences, with an average of 16 such dialogues per country. The next 30 countries include a mix of developed and emerging markets.

In Panel B, we see that PRI coordinated engagements are heavily concentrated in the manufacturing sector, followed by infrastructure and wholesale/retail trade. This resembles the distribution across industries reported in Dimson, Karakaş and Li (2015) for a US investor's engagements which were most frequently in manufacturing, followed by financials and then wholesale/retail trade. Flammer, Hong and Minor (2018) examine the integration of CSR criteria in executive compensation (CSR contracting) over 2004–2013 and find evidence for better alignment of interest between shareholders' and managers' preferences for stakeholder engagement. Consistent with our observations, they demonstrate that CSR contracting is more prevalent in emissions-intensive industries and is becoming more prevalent over time. They further find that the adoption of CSR contracting leads to a reduction in short-termism, a rise in firm value, and an increase in E&S performance/innovation.

To characterize the firms targeted in connection with PRI's projects, we compare them with their country and industry peers in the pre-engagement year. We create the pool of peer firms using WorldScope/Compustat Global

and North America universe. Following Dimson, Karakaş and Li (2015), we remove all the target companies from the pool and require both the target and the control firms to have data on the country of incorporation, industry, and market capitalization. The peer firms are drawn from the same country and industry (3-digit SIC); if there are fewer than three other firms from the same country and 3-digit SIC, we relax the industry classification to 2-digit SIC. If there are more than 10 control firms for each target, we keep only the 10 with the closest market capitalization. We then calculate the difference between the target firm and the average firm.

In Table 3, we report the characteristics of companies targeted for engagement, and the difference between target companies and matched peer firms averaged across the target sample. The difference is computed as follows:

$$Diff_i = X_i - \sum X_j / m$$

where X_i is defined as a characteristic variable and the summation $\sum$ is over firms j =1…m from the matching group. The number of observations varies slightly due to the non-availability of data used to calculate company characteristics.

Insert Table 3 about here

Some of the attributes that we note in Table 3 are as follows. First, compared to the average firm in the peer group, target companies tend to have a higher market capitalization and a higher percentage of foreign sales in their revenues, suggesting PRI targets the largest firms in their respective country and industry, who face high reputational concerns on a global scale. Second, target firms have higher holdings by long-term institutions, higher total holdings by the engagement group and by lead investors, and lower holdings by corporate insiders. Although the average holding in target firms is only 1.5%, this number is 1.5 times higher than the group's holdings in the peer group, in spite of the larger market capitalization of the targets relative to their peers. The high holdings in target firms suggest that investors engage with firms only where they have enough voice and "skin in the game". The higher holdings by long-term institutions and lower holdings by insiders allow for less resistance to proposed advancements in responsible behavior and the potential for less entrenchment of the target's management team. The information on institutional ownership is obtained from FactSet using target

firms' ISINs. We identify a holding institution as long-term based if its portfolio churn ratio is below the sample median (Gaspar, Massa, and Matos (2005)). We also manually match the identity of investors with institutions in FactSet using the organization's name, headquarter country, and AUM.

Third, target firms tend to have lower stock returns in the preceding year, but a higher return on assets. This finding highlights the importance of controlling for firm fixed effects in our subsequent performance analysis. Next, target firms have lower stock return volatility and lower sales growth, consistent with the target being larger and more mature. Lastly, target firms also have lower cash holdings, lower capital expenditures, and higher R&D expenses. We also extend this analysis to ESG ratings, obtained from Thomson Reuters Asset4. Firms with a high overall rating for ESG are more likely to be targeted. This is consistent with PRI's proactive approach of identifying potential issues in an industry or region rather than to reactively fix ESG problems as they arise.

Insert Table 4 about here

We conduct a multivariate analysis of target companies for ESG engagements by using a probit regression model. The dependent variable is *D_Target*, defined as one for a target firm and zero for a firm in the peer group. Table 4 reports the marginal effects of the probit regression coefficients for the whole sample and for the subsample with a lead organization. In these models, we control for industry, country and year fixed effects, and standard errors are clustered at the target firm level. The findings are largely consistent with those in the univariate analysis. Different from the univariate analysis, we find target firms are less likely to invest in R&D relative to their peers. This is probably because we are controlling for other firm characteristics such as growth rate and cash holding.

3.2 Characteristics of engaging companies

We now turn from the location and industry of target firms to the location and category of investors. As mentioned above, for each engagement, we are provided with data on the investors as a whole and on and the lead investor(s), if any. We are also provided by PRI with a separate list of 1,715 signatories with information on their name, signature date, headquarter country, assets under management, and type (asset owner, investment manager, or service provider). Such information is self-reported by institutions when they pledge to become signatories on PRI's website and is subsequently updated regularly when there are changes in, e.g., AUM. We manually match

investors in each engagement with the signatory list by name. In total, we have 224 unique engaging companies in our sample of which 18 do not show up on the signatory list, due to delisting or being acquired by other institutions in recent years. For these 18 firms, we manually filled in the missing information via internet search. The information on their headquarter location, category, and AUM was thus collected at the time when they were delisted or acquired. The number of signatories in our final signatory list has consequently been expanded to 1,733.

Block A of Table 5 shows that the 224 investment institutions are headquartered in 24 different countries, though—as with the location of target companies—their location is relatively concentrated. Half are located in just 3–4 countries (the UK, USA, and Netherlands, with Canada taking the proportion to over half). Half of all lead investors are shown (in the column headed Num leads) to be located in the same 3–4 countries. Regarding the category of investors, Blocks B and C report on who are asset owners and investment managers respectively, while Block D looks at service providers.

Insert Table 5 about here

For each group, we report on a country-by-country basis the number of investors in each category and their average AUM. Institutions from the UK and the US are most active: they participate in 1,626 and 1,606 out of 1,671 engagements, respectively (not reported in the table). As Table 5 shows, these two countries also have the largest number of engaging companies in our sample. For every country, we show the three investment organizations with the largest AUM.[8] For example, for the United States, the three largest asset owners are CalPERS, CalSTRS, and the New York State Local Retirement System; the three largest investment managers are T. Rowe Price, TIAA-CREF, and AllianceBernstein; and the major service providers (for whom AUM

[8] The following abbreviated names are referred to in Table 5: ATP Arbejdsmarkedets Tillægspension, CalPERS California Public Employees' Retirement System, CalSTERS California State Teachers' Retirement System, CDPQ Caisse de dépôt et placement du Québec, CPPIB Canada Pension Plan Investment Board, CSC Commonwealth Superannuation Corporation, EOS Hermes Equity Ownership Services, ERAFP French public service additional pension scheme, FAFN First Affirmative Financial Network, FRR Fonds de réserve pour les retraites, GPFG Norwegian Government Pension Fund Global, ICCF Interfaith Center on Corporate Responsibility, ISS Institutional Shareholder Services, LGIM Legal & General IM, PME Pensionfund Metalektro, RRSE Regroupement pour la Responsabilité Sociale des Entreprises, SEB Skandinaviska Enskilda Banken, SHARE Shareholder Association for Research & Education, USS Universities Superannuation Scheme.

information is, of course, unavailable) are As You Sow, ICCF, ISS, Bloomberg, First Affirmative Financial Network. There is a broad spread of investors across countries, although some absences are perhaps surprising. To highlight an illustrative country, Japan has never had an asset owner participate in any PRI coordinated engagement.[9] And the world's largest asset managers—Blackrock, Vanguard, and State Street (often referred to as the "Big Three")—have never participated in such engagements.[10] We return in the next section to the identity of investors who participate most in coordinated engagements.

Panel A of Table 6 reports selected characteristics of the 224 investors who participated in collaborative engagements at least once. Out of these 224, 86 are asset owners, 121 are investment managers and 17 are service providers. An average investor in our sample participated in 195 engagements or 4 unique projects, with the most (least) active one participating in 1,018 (1) engagements or 21 (1) projects. The average AUM of an asset owner or investment manager in our sample is $207 billion, with the maximum being $1.7 trillion and minimum being $8.3 million. There is no AUM information for service providers. In this panel, we also report characteristics of 90 investors who led at least one collaborative engagement. Out of these 90, 24 are asset owners, 61 are investment managers, and 5 are service providers. We observe that the average AUM of the lead investors ($136 billion) is higher than that of the average non-lead investors ($101 billion).

Guiso, Sapienza and Zingales (2015) and Graham et al. (2018) argue that corporate culture matters for firm performance and value. Consistent with this view, Edmans (2012) and Edmans, Li, and Zhang (2018) find evidence that companies with an organizational culture cultivating employee satisfaction tend to outperform. Graham et al. (2018) document that the "Culture & Values" rating on Glassdoor website, which provides crowd-sourced employee reviews, externally validates their survey measure of an effective culture, which is defined as

[9] Analyzing hedge fund activism in Japan, Buchanan, Chai, and Deakin (2012) conclude that activism is not received favorably and is generally resisted in Japanese public firms. Our conversation with PRI confirms this finding.

[10] The lack of participation in PRI-coordinated engagements by ultra-large investment managers is apparent even in PRI's website. The largest asset managers prefer to engage with investee companies for themselves, and they can anyway afford a substantial in-house engagement team. It has been suggested that their preference to forego collaborative engagement may reflect "concert party" concerns, as well as the influence of the managers' already large holdings in target firms. Bebchuk and Hirst (2018) point that the Big Three dominate the index fund sector in the US owning more than 20% of the US public companies and steadily growing. They assert that index funds have strong incentives to underinvest in stewardship and to be excessively deferential to corporate managers.

the one that "*promotes the behaviors needed to successfully execute the firm's strategies and achieve its goals.*" Following Graham et al. (2018), for each institution in our sample, we collect the "culture & value" ratings together with the "overall" employee ratings from the Glassdoor website. The correlation between "culture & value" ratings and "overall" ratings are 86%. Due to better availability and quality of data, we use "overall" ratings as our employee rating variable, which also proxies for the effective corporate culture.

Table 6, Panel A also reports the summary statistics for overall employee ratings collected from the Glassdoor website in July 2018. Only 104 investors in our sample have available information on employee ratings. The average investor in our sample has an employee rating of 3.53. Lead investors have a higher average (median) employee rating of 3.59 (3.60), as compared to supporting investors who have an average (median) rating of 3.46 (3.55), though the difference is not statistically significant at conventional levels.

Among all the 1,733 signatories in the final list, 1,509 of them never participated in any coordinated engagements in our sample. We thus label them as "inactive". Among these inactive signatories, 264 are asset owners, 1,033 are investment managers and 212 are service providers. As mentioned before, inactive signatories include the large institutions who prefer not to engage via PRI's Collaborative Platform (e.g., 95 with AUM at or higher than $100 billion), the small institutions who could not afford to be active (e.g., 384 with AUM at or below $100 million), those located in regions with distaste for shareholder activism (e.g., 52 located in Japan), as well as those without holdings in public equity.[11] On average, these inactive signatories have lower AUM ($45 billion).

In untabulated summary statistics, we find that an average engagement in our sample involves 26 signatories, with a collective AUM of $2.8 trillion. The combined shareholding of the coalition in an average engagement is 1.5% or $423 million in the target firm in the quarter before the engagement starting date.[12] Classifying domestic investors as those with headquarters located in the same country as the target firm, and foreign investors as those with headquarters located in a country that differs from the target firm, an average engagement in our sample has 24 foreign investors and two domestic ones. Focusing on the subsample of engagements with lead, an engagement

[11] Based on conversations with PRI, around 860 out of 1,700+ signatories in 2017 do not have publicly listed equity.
[12] We report this statistic in Table 3.

has an average of 1.4 lead investors, with 0.78 being foreign and 0.62 being domestic, and with 1.02 being investment managers, 0.29 being asset owners, and 0.10 being service providers. The median number of lead investors is one. About a quarter of the sample has two or more leaers, with the maximum number of leads being seven. The combined AUM of lead investors is $162 billion and their combined shareholdings in target are 0.40% or $63 million.

Insert Table 6 about here

Panel B of Table 6 reports the top 10 investors by number of engagements participated, and the selected characteristics of these investors. The top 10 organizations by number of engagements are Aviva Investors (UK), Boston Common Asset Management (US), Robeco (Netherlands), Amundi (France), Northern Ireland Local Government Officers' Superannuation Committee (UK), Candriam Investors Group (Luxembourg), Canada Pension Plan Investment Boards (Canada), MN (Netherlands), The Cooperative Asset Management (UK), and New Zealand Superannuation Fund (New Zealand). Out of the top 10 participants by number of engagements, seven are investment managers and three are asset owners. The information on signatories' self-reported information on the PRI website, recorded upon registering as a signatory. This table also reports the date when the firm became a PRI signatory. Among them, five joined PRI since its inception in April 2006, and four are PRI's founding signatories, i.e., Aviva Investors, Candriam Investors Group, Canada Pension Plan Investment Board, and New Zealand Superannuation Fund (unpri.org/pri/about-the-pri).

Among the 1,671 engagements in our sample, 410 have lead investor(s). On average, these engagements have 1.4 leaders with a combined AUM of $162 billion and combined shareholding of 0.47% or $67 million in the target firm (untabulated). The maximum number of lead investors in an engagement is seven, while 307 or 75% of engagements in our sample have only one lead. The leaders are most likely to be investment managers (346 engagements or 84% of our sample having at least one investment manager as lead), and least likely to be service providers (41 engagements or 10% of our sample having at least one service provider as lead). The lead investors could be either foreign or domestic.

Panel C of Table 6 reports the top 10 lead investors by engagements and the selected characteristics of these group members. Nine out of 10 leaders are investment managers, and one is a service provider. This is consistent with the view that an important incentive for investors to join or lead a coalition is to enhance reputation by demonstrating voice, which in turn attracts further fund flows from E&S conscious investors. Among them, Boston Common Asset Management and MN are also listed as top 10 investors in Panel B of Table 6. PGGM Investments, Threadneedle Asset Management, and BMO Global Asset Management are among PRI's founding signatories.

3.3 Determinants of decision to engage

We first analyze an institution's decision to become involved in an engagement. For this purpose, we create a pool of candidates for each engagement. Although, in principle, all PRI signatories could join these engagements via the Collaboration Platform, as discussed above, only 224 used the platform at least once during our sample period. To alleviate the potential concern that these 224 signatories may be fundamentally different from the remaining 1,509, we limit the pool to the 224 signatories. In other words, for each engagement, there are 224 potential candidates to become involved.

Insert Table 7 about here

Column (1) of Table 7 reports the regression results on a signatory's first decision to become involved in an engagement. We include signatory fixed effects to control for time-invariant signatory characteristics, such as size, category and location; project fixed effects to control for time-invariant project characteristics, such as issues and success criteria; target fixed effects to control for time-invariant target characteristics, such as location and industry; and year fixed effects to control for time-dependent factors. We use an OLS model rather than a probit or logit model due to the incidental parameters problem arising in non-linear models with many fixed effects (Greene (2004)). We find that an important role in incentivizing the signatory to become involved is being in the same country as the target firm. Interestingly, we find that locating in the same region (i.e., continent) but in a country that differs from the target firm does not seem to influence the decision to engage (untabulated). These two results suggest that cultural similarity and linguistic advantages, rather than geographic distance, are more

likely to create incentives for engagement. This result could also be driven by the fact that signatories may have a home bias such that they are more interested in issues related to local firms and care more about local clients and are, therefore, more willing to be involved in engagements close to home. Such home bias would not be surprising: Barber, Morse, and Yasuda (2018) report considerable bias in the holdings of limited partners in dual-objective venture/growth equity funds.

We also find that an important contribution to the decision to participate is the elapsed time since joining PRI as a signatory and the signatory's past or ongoing engagement experience. Having joined PRI as a signatory before the project starts increase the likelihood of being part of the coalition.[13] This suggests that information sharing and processing between the PRI and the signatory is an important motivation for joining a coalition. A signatory's past and ongoing engagements reduce the probability of being involved in a new project. The former could be due to the pressure of being active as a PRI signatory, the latter is likely due to the costs of staying active in a coordinated engagement.[14] There is not a significant impact on the targeting decision from signatory exposure to the target firm, relative to the investor's portfolio value; nor from the signatory holding in the target firm. This could be due to two opposing effects of ownership on engagements. On the one hand, investors may prefer to engage alone if their ownership is relatively high (or in a coalition if their ownership is relatively low); on the other hand, engagements also require certain clout over the firm, which is mainly achieved through ownership.

Column (2) reports the regression results for a signatory's first decision to become involved in the subsample of cases in which the engagements do not have any lead investor. Our findings for this subsample resemble our findings with the full sample analyzed in Column (1), though with a slightly reduced statistical significance in

[13] PRI may send engagement invitations to institutions who have not yet pledged as PRI signatories. In these cases, an institution may decide to join an engagement first and later became a signatory. However, this practice is uncommon. Only in 5% of our sample did an institution join an engagement before becoming a signatory.

[14] Some institutions may join coordinated engagements to appear active in front of their clients. Once they participate in a certain number of engagements within a certain period, they do not have incentive to join more.In recent years, PRI has strengthened its signatory accountability, implementing minimum requirements for maintaining membership and showcasing leadership activity for its existing and future signatories: (i) Investment policy that covers the firm's responsible investment (RI) approach, covering >50% of AUM, (ii) Internal/external staff responsible for implementing RI policy, and (iii) Senior-level commitment and accountability mechanisms for RI implementation. Signatories not meeting the criteria by 2020 will be first informed privately and then delisted following unsuccessful engagement over the two-year period (unpri.org/signatories/increasing-accountability-and-showcasing-leadership).

the coefficients of interest likely due to the reduced sample size. We find the coefficients on a signatory's past and ongoing engagement experience are no longer significant, perhaps due to the lower costs of staying active in these earlier projects.

Column (3) of Table 7 reports the incentives for a signatory to become a lead investor, conditional on becoming a member of the group involved in a specific engagement. To play the lead role, the investor needs to be the point of contact, to post the invitation, to report back to PRI periodically, and to commit significant time and resources to the engagement. Some engagements require face-to-face meetings with management. While the lead investor arguably incurs considerable costs, the potential benefits of the engagement efforts such as improved firm performance and stock price are shared among all stakeholders. In such engagements, free-rider problems may disincentivize an investor from playing a lead role. Consistent with this conjecture, our results suggest that conditional on becoming involved, a signatory is more likely to lead if it has higher exposure to and holdings in the target, i.e., have more "skin in the game". Like the results on becoming a lead investor, a signatory is more likely to lead when the target is domestic, likely due to lower engagement costs or higher familiarity with or interest in the matter.

Column (4) of Table 7 reports the incentives for a signatory to become a supporting investor, conditional on knowing who the lead investors would be. We find that a signatory is less likely to join a coalition as a supporting investor if it is already being busy in other projects. Interestingly target firm being domestic is not a determinant for the supporting investors. This could be partially due to PRI's preference for foreign membership in coalitions, which we illustrate in the next section. Past engagement experience seems to decrease the likelihood of being a supporting investor.

Other observations based on regressions without signatory fixed effects are as follows (untabulated). Interestingly, in contrast to their reputation regarding aggressive engagements on governance issues around the world, we find US signatories are less likely to become involved in engagement or to accept a lead role on E&S issues. This could be indicative of a relative lack of interest in E&S issues or it could reflect a weaker relationship with PRI. We also find that signatories of a greater size (higher AUM) are more likely to lead, perhaps because

larger institutors have more resources to expend on active engagements. Service Providers (as opposed to Asset Owners or Investment Managers) are more likely to lead, perhaps due to their expertise in shareholder engagements and their arguably lesser conflicted interests.

3.4 Determinants of engagement outcome

We now seek to identify the determinants of success in individual engagements. We first examine whether success can be explained by target firm characteristics, including size (market capitalization), market-to-book ratio, leverage, and long-term institutional ownership. These variables are measured in the fiscal year immediately before the engagement starting date. After several years' experience without identifying a lead investor, PRI had found it helpful to recognize one or more lead investors to drive forward an initiative while drawing in numerous supporting investors. This change of strategy enables us to examine the impact of a structured engagement on the effectiveness of engagement, i.e., whether the presence of a lead investor(s) can explain success.

We also examine whether the influence that can be mobilized by the group could explain the success of engagements. Measures of potential influence are both monetary and non-monetary. The monetary measures include the combined dollar value of investors' investment in the target company, a proxy for existing voting power, and their aggregate assets under management (AUM), a proxy for potential investment or potential voting power. The non-monetary influence is cultural, which are inferred from the organization's average employee rating on Glassdoor.

Next, we examine whether the composition of the investors involved in engagements, particularly their geographic location (domestic or foreign), affects the success of an engagement. On the one hand, domestic investors would likely have linguistic and cultural advantages while establishing and maintaining dialogue with the target firm. Proximity to the target may increase the chance of face-to-face interaction and thus the effectiveness of engagement. Having contacts in local regulatory bodies and/or the media may also pressure target firms to adopt the proposed changes. On the other hand, having foreign investors on board could broaden the scope and impact of engagements, particularly given the extent to which E&S issues are becoming a global concern.

Insert Table 8 about here

We conduct a multivariate analysis on the success of E&S engagements by using a probit regression model. The dependent variable is *D_Success*, defined as one for engagements recorded by PRI as successful and zero for engagements recorded as unsuccessful. Among the 1,671 engagements, PRI is able to evaluate the success of 1,016 that have reached the stage at which they can be evaluated. The average success rate for our sample is 42% with a range between 0 and 92% across 28 projects for which success data are provided to us. We exclude cases in which information on the success of the engagement is not available (655 observations). We include year fixed effects to control for time-dependent factors. We conduct the analysis separately for all engagements and for engagements with lead investors. In Panel A of Table 8, for the columns in which we measure influence for all investors engaging with the target, we see a negative relationship between target firm size and market-to-book ratios and the engagement success. These findings suggest that success is less likely when target firm is larger in size, potentially due to the higher voting power investors have in relatively smaller firms. These findings also suggest that success is less likely among high growth firms, potentially due to their limited capacity to adopt potentially costly E&S changes. We further find that success is more probable when there is a larger long-term institutional holding in the target company, which enhances receptivity to long-term value-enhancing changes.

The most striking result in the first three columns of Table 8, Panel A is that the presence of lead investors is associated with a substantial increase in the probability of success, i.e., 16-25% increase depending on the model specification. This is bolstered by the involvement of an influential group of investors (greater shareholding, larger AUM, and higher employee rating) in the engagement. These findings are consistent with PRI's more structured approach to coordinated engagement which is characterized with identifying more relevant topics for engagement, a more efficient allocation of workload, and a better utilization of expertise and harmonizing the culture and objectives within the coalition. Our findings are also is in line with Dimson, Karakaş and Li (2015) illustrating that "voice" is better exercised with a higher share of voting power. Indeed, the result on the positive association between shareholding and success rate suggests that having more "skin in the game" incentivizes investors to engage more effectively.

In the last three columns, we limit the sample to engagements with lead investor(s) to examine separately the impact of lead investor influence on success. Consistent with findings for the whole sample, we find that holdings in the target and the AUM of both the lead and the supporting investors influence the success of engagements. We also find that the average employee rating of the lead, but not the supporting, investors plays a role for the success of engagements. This is not surprising, since lead investors are responsible for directly contacting the target firms, the cultural impact of leaders is likely to be more instrumental. This also suggests that the corporate culture of the lead firm has to measure up for the commitment of its leadership role in collaborative engagements.

In Panel B of Table 8, we separate investors by location (domestic vs. foreign) and examine the impact of location on engagement success. The results in the first two columns indicate that having foreign investors with higher shareholdings in target firms and larger AUM significantly improves the success rate. This finding is consistent with the idea that having foreign investors on board broadens the scope and impact of engagements, especially when these investors are influential. In the last two columns, we examine the impact of lead investor location. Success is more probable if the leader is located domestically and is influential. Proximity provides local expertise and knowledge and appears to improve the effectiveness of engagements.[15]

To sum up, findings in this section suggest that the most effective structure of a coordinated E&S engagement involves appointing local leads with high stakes and influence and including influential foreign supporting investors. The enhanced success rates with lead investors may also reflect a learning curve, and opportunities for improvement in engagement strategies over time. This resembles the strategy of private equity investors. Given that some active owners operate in both the private equity and ESG domains (see also Barber, Morse, and Yasuda (2018)), there may be learning opportunities that drive innovations in engagement. A related observation is that engagement success is positively related to the aggregate domestic lead investor's shareholding and the aggregate foreign investors' shareholding. This may contribute to the transfer of knowledge on ESG issues and thus improved techniques for effective collaboration in future periods.

[15] We do not analyze the cultural influence of foreign and domestic investors in Panel B of Table 8 due to data availability. Since every engagement on average only has two domestic investors, we lose much of the sample by requiring employee ratings to be non-missing for both domestic and foreign shareholders for each engagement.

3.5 Long-term stock market performance of target companies

How do shareholders of the target firms view the coordinated engagements on E&S? To address this question, we analyze the long-term stock market performance of the target firms. In Table 9, we look at changes in abnormal buy-and-hold returns and the cumulative abnormal returns (CARs) around the engagement initiation. For each target firm, we contrast annual abnormal stock returns three years after the engagement initiation with those two year before the engagement, as the median engagement in our sample takes two years to conclude (Table 1).

Insert Table 9 about here

The dependent variables in Table 9 are abnormal annual buy-and hold returns, defined as target firm 12-month buy-and-hold return minus market 12-month buy-and-hold return calculated using MSCI return index, and annual CARs, defined as target firm monthly return minus MSCI monthly return cumulated over 12 months. We keep 24 months before and 36 months after the engagement start date. Year+1 includes month 0 to month 11. Year+2 includes month 12 to month 23. Year+3 includes month 24 to month 35. Month 0 is the monthly return at the same month when the engagement started. Post-engagmentYear+1 is defined as one for event window Year+1. Post-engagmentYear+2&3 is defined as one for event window Year+2 and Year+3. Target firm characteristics are obtained from the corresponding fiscal year end. All regressions incorporate target firm fixed effects and calendar year fixed effects. Panel A of Table 9 contrasts engagements with lead investors with those without; Panel B contrasts successful engagements with unsuccessful ones; and Panel C contrasts successful engagements with lead investors with unsuccessful engagements without lead. Bold numbers indicate the coefficients are statistically different across the subsamples.

We document about 4% increase in annual abnormal stock returns at target firms within three years after the engagement initiation, relative to the pre-engagement level for the subsample of engagements with lead investors. In contrast, we observe no change in target firms' stock performance among engagements without a leader (Table 9, Panel A). This finding further supports the conjecture that leadership in engagement coalitions is associated with a positive shareholder outcome. Similarly, analyzing stock performance conditioning on engagement outcome, we find about 4% increase in annual abnormal returns for the subsample of successful engagements

(Table 9, Panel B). Focusing on the successful engagements with lead investors, we find about 6% increase (Table 9, Panel C). In contrast, we find a decrease in stock performance among target firms with unsuccessful engagements, especially among those without a lead. Collectively, these findings suggest that coordinated engagements are value-enhancing for shareholders, especially when engagements are headed by lead investors and/or are successful.

Overall, we find engagements concluding successfully to be rewarded by the stock market in the first year of the engagement, and occasionally also in the following two years. Our results chimes with Dimson, Karakaş, and Li (2015) reporting 7-8% abnormal returns to successful ESG engagements in their sample. Our findings are also consistent with Servaes and Tamayo (2017) who discuss the role of social capital in corporations by reviewing the related literature; they argue that social capital is likely to enhance firm value.[16] Comparing the abnormal returns in the successful engagement subsamples with the ones in the unsuccessful engagement subsamples also yield statistically significant results in favor of the successful engagement subsamples. This suggests that the market, on average, can distinguish and reward the successful engagements. This finding also yields support for the objectivity of the success measures that PRI uses in the evaluation of projects.

3.6 Accounting performance and shareholding of target companies

Finally, we examine the post-engagement changes in accounting performance and shareholding of the target firms. Tables 10 and 11 report regression results for various performance outcomes and target shareholdings following engagements, respectively.

In Table 10, we analyze ROA, sales growth, and stock return volatility. In Table 11, we analyze total investor holdings of the target firm in dollar terms, lead investor holdings of the target firm in dollar terms, and supporting investor holdings of target firm in dollar value. We include firm fixed effects and year fixed effects in all

[16] Gantchev, Gredil, and Jotikasthira (2018) find that the positive effects of hedge fund activism spill over to non-targeted peers under the threat of activism. Albuquerque et al. (2018) find that cross-border M&A activity is associated with subsequent improvements in the governance of non-target firms. Dai, Liang, and Ng (2018) and Schiller (2018) find evidence for E&S spillovers on supply chains. In a similar spirit, in addition to the direct effects we study, there could be spillover effects of E&S activism. We leave further exploration of this topic to future research.

regressions. We also include firm size (market capitalization) and market-to-book ratio to control for firm characteristics and include industry medians of the dependent variable to control for potential industry trends. To assess the change in target firm performance, we limit the sample to two years before and three years after the engagement initiation date. The two post-engagement indicator variables, i.e. Post *Year+1 and Year+2&+3,* thus capture the performance change in *Year +N* relative to the average performance in the two-year period prior to engagement. Panel A of Table 10 compares engagements with lead investors relative to those without; Panel B contrasts successful engagements with unsuccessful ones; and Panel C contrasts successful engagements with lead investors with unsuccessful engagements without lead. Bold numbers indicate the coefficients are statistically different across the subsamples.

Insert Table 10 about here

Panel A of Table 10 reports an increase in ROA and sales growth post-engagement for the engagements with lead investors, especially at Years +2 and +3. This is not surprising given that on average it takes two years for a project to complete. We also observe a similar finding of an increase in ROA and in sales growth following the successful engagements (Panel B, Table 10). We do not observe such trends following the unsuccessful engagement sample. These findings suggest that successful engagements on ESG issues lead to improvements in firm sales and profitability. In Panel C of Table 10, we find that successful engagements with lead investors decrease the stock return volatility whereas the unsuccessful engagements without lead increase the stock return volatility. This is in line with Dimson, Karakaş, and Li's (2015) finding that ESG engagements decrease the stock volatility of the target firms, and with the finding by Hoepner et al. (2018) that ESG engagements reduce firms' downside risk. Relatedly, a recent survey by the CFA Institute (2017) of its members on ESG issues finds that 73% of respondents take ESG issues into consideration in their investment analysis and decisions, and that 65% of respondents take ESG issues into consideration to help manage investment risks.

Insert Table 11 about here

Additionally, in Table 11, we analyze the holdings of all the investors in engagements without lead, and lead investors and the supporting investors in engagements with lead. We find that the leaders' holdings increase

significantly after successful engagements, but do not change after unsuccessful engagements. The former finding could be a result of lead investors increasing their holdings in the target after foreseeing success as value-enhancing. This result could also be driven by leaders increasing holdings as a bargaining tool to achieve success. We also find that supporting investors decrease their holdings after the engagement initiation, which may partially be due to realizing profits (avoiding losses) immediately after the positive (negative) stock market reaction to successful (unsuccessful) engagements (Table 9).

Our evidence suggests that successful engagements lead to improvements in the profitability of the targeted firms in the medium- and long-term. Increases in the lead investors' holding in the target company post-engagement suggest that these entities are "universal owners" with positions that are to be held over a long investment horizon. The decrease in some investors' holdings in the first year after the engagement may enable these institutions to realize potential gains. It enables them to reverse their overweight position in the target company that had been necessary to boost their voting rights and to strengthen their voice during the engagement. The neutral post-event change in performance measures after an unsuccessful engagement is consistent with Dimson, Karakaş and Li (2015), who report no significant changes following unsuccessful engagements by a single major investor.

4. Conclusion

Coordinated engagements on E&S issues are surging in the institutional investment world and our study provides the first detailed evidence of the nature and impact of such engagements in a global setting. We show that leadership is decisive in collaborative engagements. Success rates are elevated by up to a quarter when there is a lead investor who heads the dialogue. The increase in success rates is higher especially when the lead investor is based in the same country as the targeted firm. We also show that investor influence is crucial. Success rates are higher when investors have greater assets under management, own a larger investment in the target company, and have higher employee ratings. These findings suggest that, for maximum effect, coordinated engagements on E&S issues would preferably have a lead investor who is well suited linguistically, culturally and socially to

influencing target companies. Supporting investors are also vital, and they would ideally be major investment institutions that have influence because of their scale, ownership and geographic breadth.

Our findings suggest that coordinating activity through a third party can significantly reduce the costs associated with active engagement. Importantly, it can alleviate the free-rider problem that is a deterrent to active ownership. Institutions' incentives to become leaders are shaped by their expertise and interest, alongside their resource base and the extent to which they behave like universal owners. Having a structured engagement strategy helps them achieve their stated objectives and contributes to improving the performance of investee companies. Institutions with skin in the game relative to other investors are more likely to bear the engagement costs and to play the lead role.

Appendix A: Examples of PRI-Coordinated ESG Engagement Projects

This appendix provides a summary of four coordinated engagement sequences. Further details are provided by Piani (2013), from whom the following summaries are adapted.

A.1 Carbon disclosure

During 2010-13, a group of 23 PRI signatories representing $2.8 trillion in AUM conducted a collaborative engagement to improve the quality of disclosure through the carbon disclose project (CDP) among carbon-intensive portfolio companies. The investor group sent a joint letter to companies whose climate disclosure score had been in the bottom quartile among respondents to the annual CDP questionnaire in the previous year. Investors then followed up through phone calls or meetings with target companies to discuss strengths and weaknesses in their climate disclosure, and to encourage them to improve the quality of information provided in the next questionnaire, reiterating the value of this information for investors. In 2010, 30% of the 204 companies engaged with improved their disclosure score. In 2011, 25% of the 96 companies followed suit, and in 2012, 40% of the 77 companies did so.

Success is evaluated based on targeted firms moving out of the lowest quartile of respondents in CDP questionnaire on the climate disclosure score.

A.2 Anti-corruption

During 2010-13, PRI signatories with assets of $2 trillion engaged with 20 companies in various sectors in the belief that robust anti-corruption measures enhance corporate performance, while the absence of such measures can exacerbate risk exposure. A broad group of investors wrote to companies requesting details of their anti-corruption systems, and an independent research provider analyzed their performance. They then analyzed non-responders' performance, and letters were sent to them presenting the findings and requesting further information. Overall, 85% of targets responded and were willing to engage with their owners. One-third of responders demonstrated improved systems and transparency. After a further letter in 2012, over 60% of non-responding companies agreed to engage with investors. By 2013, 16 of the companies recorded improved performance, with 10 quadrupling their score.

Success is evaluated based on comparing anti-corruption scores in pre- and post-engagement periods. Engagements involving target companies whose anti-corruption scores improved by 10% or more are considered successful, while engagements with those whose scores improved less than 10% are considered unsuccessful.

A.3 Responsible business in conflict areas

During 2009-12, 16 PRI signatories with assets of $0.6 trillion, led by Hermes Fund Managers, engaged with 16 US, European and Japanese consumer electronics companies to ensure their supply chains were not involved in the Eastern Congo conflict. They requested public disclosure on mineral-sourcing and signed agreements regarding independent verification of suppliers' stated practices. 18 meetings were held with target companies, and several investors also lobbied in favor of the SEC's Conflict Minerals Provision rule (Section 1502) of the 2012 Dodd-Frank Act. By 2012, there were quantified improvements in public disclosure and implementation measures, including supplier monitoring and external verification. In 2012 the SEC Conflict Minerals Provision rule was approved, the expectation of potential regulatory requirements having strengthened the business case for companies to respond to investor concerns.

Success is evaluated based on comparing disclosure and implementation scores in pre- and post-engagement periods. Engagements with target companies whose scores improved by 10% or more are considered successful, while engagements with those whose scores improved by 10% or less are considered unsuccessful.

A.4 UN Global Compact (UNGC)

During 2012, 32 PRI signatories representing $3 trillion, led by Aviva Investors, engaged with 116 UNGC member companies regarding their Communication on Progress. They welcomed advanced reporting by some companies and encouraged non-communicating companies to respond and thereby reactivate their UNGC status. Phone and email follow-up with the 25 non-communicating companies was undertaken by investors and the PRI Secretariat and by the UNGC's local networks. By end-2012, 76% of non-communicating companies had responded and regained active status. Consistent and frequent follow-up appeared to encourage responses, as did having local-level contact points.

Success is recorded as being when the target firm became active.

Appendix B: Success Measures

This appendix lists the criteria PRI uses to evaluate the success of each project. CDLI denotes Carbon Disclosure Leadership Index. CDP denotes the Carbon Disclosure Project. COP denotes Communication on Progress. UNGC denotes the United Nations Global Compact. Success is evaluated for each target firm individually for each project.

Project name	Success measure
Anti-corruption (Phase 1)	Scorecards
Anti-corruption (Phase 2)	Scorecards
CDLI 2011	Whether target's leadership index improved from the bottom quartile
CDLI 2012	Whether target's leadership index improved from the bottom quartile
CDP Carbon Action	Whether target sets an objective or demonstrated progress on this
CDP Engagement on Emissions Reduction Plans	Whether emission reduction program started in post-engagement year
CDP Water Disclosure 2011	Whether the target disclosed CDP water in the year after engagement
CDP Water Disclosure 2012	Whether target's leadership index improved from the bottom quartile
CEO Water Mandate	Whether the target signed up in the initiative
COP1 - First annual UNGC engagement	Whether the UNGC target company became active
COP2 - Second annual UNGC engagement	N/A
COP3 - Third annual UNGC engagement	Whether the UNGC target company became active
COP4 - Fourth annual UNGC engagement	Whether the UNGC target company became active
COP5 - Fifth annual UNGC engagement	Whether the UNGC target company became active
COP6 - Sixth annual UNGC engagement	N/A
Corporate climate lobbying	N/A
Director nominations	Scorecards
Employee relations	Scorecards
Forest Footprint Disclosure 2011	Whether the target disclosed forest footprint
Forest Footprint Disclosure 2012	Whether the target disclosed forest footprint
Fracking	Scorecards
Human rights in extractives	Scorecards (interim)
Indigenous rights	Scorecards
Labor standards in the agr. supply chain: phase 1	Scorecards
Palm oil (buyers)	N/A
Palm oil (growers)	Scorecards (interim)
Responsible business in conflict areas	Scorecards
Senior gender equity with global companies	Scorecards
Sudan engagement	Scorecards
Sustainable fisheries	Whether the target provided a response addressing requested areas
Water risks in agricultural supply chains	N/A

Appendix C: Variable Definitions

Variable Name	Definition
Target fundamental data (Source: WorldScope and Compustat)	
Market cap	Market capitalization in $b or $t. Converted from local currencies to USD using fiscal year end exchange rate.
Market-to-book	Market value of equity / Book value of equity
Stock return volatility	Standard deviation of monthly stock returns during the fiscal year
Sales growth	(Current year sales - Previous year sales) / Previous year sales
Return on assets	Earnings before interest, tax, depreciation and amortization (EBITDA) / Total assets
Cash/Assets	Cash / Total assets
Capex/Assets	Capital expenditures / Total assets
R&D/Assets	R&D expenditures / Total assets
Leverage	(Short-term debt + Long-term Debt) / Total assets
Dividend payout	Common dividends in cash / Net income before extraordinary items
Foreign sales%	Foreign sales/Total sales
Insider holding	Number of closely held shares divided by common shares outstanding
Target shareholding data (Source: FactSet)	
Long-term institutional holding	Percentage of shareholdings by institutions with Churn ratio below sample median
Total of involved investors holding %	Percentage of shareholdings by all involved investors
Total of involved investors holding $m	Percentage of shareholdings by all involved investors multiplied by market capitalization of the target at the end of calendar quarter immediately before engagement start date.
Total lead investors holding	Percentage of shareholdings by all lead investors
Total lead investors holding $m	Percentage of shareholdings by all lead investors multiplied with market capitalization of the target at the end of calendar quarter immediately before engagement start date.
Signatory exposure to target	The value of a signatory's shareholdings in target divided by signatory's total portfolio value in the quarter immediately before engagement starting date. It is set as zero for Service Providers or for signatories with zero portfolio value.
Signatory holding in target	Percentage of shareholdings of target by a signatory at the end of calendar quarter immediately before engagement start date. It is set as zero for Service Providers.
ESG rating data (Source: Thomson Reuters Asset4)	
Asset4 rating	Overall ESG rating
Employee rating data (Source: Glassdoor)	
Employee rating	The average employee rating provided by Glassdoor. Only the latest rating available (as of July 2018). We keep only observations with at least three ratings at Glassdoor.

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Table 1: List of coordinated engagement projects

This table lists 31 PRI-coordinated ESG projects used in our analysis. An engagement is defined as one target firm in one project. This table also lists the projects with lead investors and the average number of investors for each project. CDP denotes the former Carbon Disclosure Project. COP denotes Communication on Progress. UNGC denotes the United Nations Global Compact.

Project name	Project duration	Num. of Engagements	Num. of Countries	Avg. Num. of Investors	Project has lead?
Anti-corruption (Phase 1)	01 Mar 10 - 31 Mar 13	20	14	25	Yes
Anti-corruption (Phase 2)	01 Apr 13 - 15 Jun 15	32	13	37	Yes
Carbon Disclosure Leadership Index: CDLI 2011	01 Mar 11 - 31 Dec 11	25	12	2	No
Carbon Disclosure Leadership Index: CDLI 2012	01 Mar 12 - 31 Jan 13	81	19	34	No
CDP Carbon Action	16 Nov 12 - 19 Dec 14	123	30	33	Yes
CDP Engagement on Emissions Reduction Plans	01 Sep 09 - 31 Dec 11	40	21	30	No
CDP Water Disclosure 2011	01 Feb 11 - 30 Sep 11	94	25	15	No
CDP Water Disclosure 2012	01 Mar 12 - 31 Oct 12	78	28	20	No
CEO Water Mandate	01 Aug 08 - 30 Sep 10	102	35	35	No
COP1 - First annual UNGC engagement	01 Jan 07 - 31 Dec 08	109	37	36	No
COP2 - Second annual UNGC engagement	01 Dec 08 - 31 Dec 09	103	39	39	No
COP3 - Third annual UNGC engagement	01 Jan 10 - 31 Dec 10	115	41	35	No
COP4 - Fourth annual UNGC engagement	01 Jan 11 - 31 Dec 11	163	41	22	No
COP5 - Fifth annual UNGC engagement	01 Feb 12 - 28 Feb 13	91	19	13	No
COP6 - Sixth annual UNGC engagement	10 Mar 14 - 16 Apr 14	69	20	21	No
Corporate climate lobbying	03 Mar 15 -	19	3	5	Yes
Director nominations	19 Oct 12 - 30 Sep 16	23	3	18	Yes
Employee relations	19 Oct 12 - 31 Dec 15	25	14	24	Yes
Forest Footprint Disclosure 2011	01 Aug 11 - 31 Mar 12	25	11	21	No
Forest Footprint Disclosure 2012	01 Jun 12 - 31 Oct 12	8	2	31	Yes
Fracking	19 Oct 12 - 23 Dec 16	29	8	8	Yes
Human rights in extractives	03 Feb 14 -	32	17	51	Yes
Indigenous rights	01 Jun 09 -	10	5	16	Yes
Labour standards in the agr. supply chain: phase 1	19 Oct 12 - 31 Dec 15	32	14	39	Yes
Palm oil (buyers)	25 Jan 13 -	45	15	25	Yes
Palm oil (growers)	26 Mar 14 -	13	4	10	Yes
Responsible business in conflict areas	01 Nov 10 - 30 Sep 13	15	4	16	No
Senior gender equality with global companies	01 Feb 10 - 30 Sep 12	55	9	10	Yes
Sudan engagement	01 Jan 08 - 31 Dec 12	7	6	28	No
Sustainable fisheries	01 Jun 11 - 31 Jan 13	41	18	20	No
Water risks in agricultural supply chains	19 Oct 12 -	47	17	23	Yes
Sample Mean	*716 days*	*54*	*18*	*24*	
Sample Median	*730 days*	*40*	*15*	*23*	

Table 2: Attributes of targets

Panel A lists the countries where targets are domiciled and the number of engagements and of unique target firms within each country. Panel B lists the industries (one-digit SIC code) of target firms and number of engagements. Infrastructure & Utilities industries include transportation, communications, electric, gas, and sanitary services. The sample includes 964 unique target firms from 63 countries, involved in 1,671 engagement sequences.

Panel A: Country of targets

Target country	Num. of engagements	Num. of targets	Target country	Num. of engagements	Num. of targets
United States	291	163	Portugal	9	4
France	124	61	Taiwan	9	8
United Kingdom	112	67	Bermuda	7	4
Japan	95	62	Israel	7	5
Germany	83	44	Ireland	6	3
Canada	79	50	Luxembourg	6	2
India	78	57	Colombia	5	4
Spain	58	28	Croatia	5	4
Brazil	56	30	Egypt	5	4
Italy	54	27	Sri Lanka	5	4
Australia	45	29	Thailand	5	5
South Korea	44	24	Turkey	5	5
Sweden	41	23	Bulgaria	4	2
Switzerland	41	21	Greece	4	3
China	36	20	Nigeria	4	4
South Africa	34	19	Peru	4	3
Netherlands	32	13	Poland	4	2
Pakistan	32	17	New Zealand	3	3
Finland	29	13	Tunisia	3	3
Norway	23	13	Bosnia-Herzegovina	2	1
Singapore	23	9	Czech Republic	2	1
Denmark	20	10	Hungary	2	1
Mexico	17	11	Macedonia	2	2
Hong Kong	16	10	Slovenia	2	2
Russia	15	9	Bangladesh	1	1
Chile	13	9	Cyprus	1	1
Indonesia	12	8	Kenya	1	1
Belgium	11	7	Latvia	1	1
Argentina	10	6	Oman	1	1
Austria	10	5	UAE	1	1
Lithuania	10	6	Zambia	1	1
Malaysia	10	7	*Total*	*1,671*	*964*

Panel B: Industry of targets

Target industry (One-digit SIC)	Num. of engagements	Num. of targets	Num. of countries
Manufacturing	816	462	52
Infrastructure & Utilities	233	142	35
Wholesale or Retail Trade	204	97	32
Mining	188	96	23
Finance, Insurance and Real Estate	121	80	34
Services	73	61	21
Construction	34	24	12
Agriculture, Forestry and Fishing	2	2	2

Table 3: Summary statistics of targets

This table compares attributes of target firms with their peers in the fiscal year immediately before the engagement start date, except for investor shareholdings, which are measured at the calendar quarter immediately before the engagement start date. For each target, the peer firms are drawn from the same country and industry (3-digit SIC). When fewer than three peer firms are found for a particular target, we relax the industry to 2-digit SIC. When more than 10 peers are found, we keep 10 with the closest market capitalization to that of the target. We then calculate the average of each variable among the target's peers and compare the average with the target. The left panel reports summary statistics for all target firms with available data and the right panel reports the average difference between target firms and the peer group with available information on both. All variables are defined in Appendix C. All continuous variables are winsorized at 1st and 99th percentile levels.

	Summary Statistics				Difference from country/industry mean		
	Mean	Median	StDev	Obs	Avg. Diff.	t-stat	Obs
Target firm attributes	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Market cap ($b)	39.49	11.51	94.28	1,671	35.26	15.49	1,585
Market-to-book	2.55	1.83	2.57	1,652	0.03	0.43	1,563
Stock return	0.16	0.10	0.47	1,654	-0.07	-5.57	1,565
Stock return volatility	0.09	0.08	0.05	1,639	-0.04	-22.12	1,550
Return on assets	0.13	0.12	0.09	1,668	0.07	16.98	1,582
Leverage	0.25	0.24	0.15	1,671	0.01	3.53	1,585
Dividend payout	0.39	0.34	0.66	1,671	0.10	5.33	1,585
Sales growth	0.09	0.07	0.21	1,660	-0.13	-11.76	1,571
Cash/Assets	0.06	0.04	0.06	1,661	-0.03	-13.23	1,573
Capex/Assets	0.01	0.00	0.02	1,671	0.00	-5.01	1,585
R&D/Assets	0.06	0.05	0.05	1,671	0.00	2.72	1,585
Long-term institutional holding %	33.5	37.4	0.25	1,671	15.9	29.76	1,585
Total investors holding %	1.5	0.6	0.02	1,671	0.9	17.83	1,585
Total investors holding $m	422.58	60.68	942.31	1,671	412.14	17.31	1,585
Total lead investor(s) holding %	0.4	0.0	0.01	410	0.4	6.99	391
Total lead investor(s) holding $m	62.80	1.51	147.05	410	63.93	8.45	391
Insider holding %	27.9	18.2	0.29	1,671	-7.8	-11.00	1,585
Foreign sales %	40.6	40.5	0.33	1,671	18.5	25.62	1,585
Asset4 rating	77.56	87.04	22.52	1,262	22.43	23.88	842

Table 4: Determinants of targeting

This table examines the determinants of targeting by comparing target firms with their peers in the fiscal year immediately before the engagement start date using probit regressions. For each target, the peer firms are drawn from the same country and industry (3-digit SIC). When fewer than three peer firms are found for a particular target, we relax the industry to 2-digit SIC. When more than 10 peers are found, we keep 10 with the closest market capitalization to that of the target. The dependent variable D_Target is defined as one for the target and zero for the peer. Coefficients are presented as marginal effects. The first two columns include all engagements with data on regression variables and the last two columns only include engagements with lead investor(s). All variables are defined in Appendix C. All regressions incorporate country, industry (2-digit SIC), and year fixed effects. Standard errors are clustered at the target firm level. All continuous variables are winsorized at 1st and 99th percentile levels. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Prob(D_Target=1)			
	Engagements with all investors		Engagements with lead investor	
	(1)	(2)	(3)	(4)
Market cap ($tr)	2.397***	3.475***	1.401***	3.016***
	(7.98)	(6.42)	(5.02)	(4.35)
Market-to-book	0.000	0.004	0.000	0.003
	(0.31)	(0.69)	(0.12)	(0.38)
Stock return	-0.011**	-0.023	-0.011	-0.043
	(-2.19)	(-1.15)	(-1.00)	(-1.02)
Stock return volatility	-0.206***	-0.326	-0.236**	-1.184***
	(-3.38)	(-1.26)	(-2.11)	(-2.73)
Return on assets	0.078**	0.015	0.087*	-0.132
	(2.31)	(0.10)	(1.67)	(-0.61)
Leverage	0.048**	0.025	0.030	-0.028
	(2.32)	(0.31)	(0.93)	(-0.22)
Dividend payout	0.007	0.019	0.010**	0.045*
	(1.57)	(1.07)	(2.12)	(1.66)
Sales growth	-0.030***	-0.108***	-0.036***	-0.099**
	(-3.49)	(-3.37)	(-3.23)	(-2.48)
Cash/Assets	-0.107**	-0.140	-0.137*	-0.459*
	(-2.51)	(-0.91)	(-1.81)	(-1.65)
Capex/Assets	-0.037	-0.054	0.126*	1.000***
	(-0.62)	(-0.23)	(1.71)	(3.16)
R&D/Assets	-0.550***	-2.434***	-0.139	-1.877**
	(-3.17)	(-4.80)	(-0.41)	(-2.00)
Long-term institutional holding	0.085***	0.063	0.098***	0.089
	(4.25)	(1.08)	(3.75)	(1.01)
Insider holding	-0.032**	-0.105**	-0.088***	-0.135
	(-2.36)	(-2.03)	(-3.96)	(-1.60)
Foreign sales%	0.070***	0.078*	0.082***	0.108**
	(5.53)	(1.95)	(5.17)	(1.98)
Log(1+Total investors holding $m)	0.031***	0.036***	0.017***	0.020**
	(15.40)	(6.72)	(6.04)	(2.49)
Log(1+Total lead investors holding $m)			0.021***	0.048***
			(6.59)	(5.81)
Asset4 Rating		0.005***		0.005***
		(10.34)		(6.06)
Observations	10,981	4,001	2,817	1,246
Pseudo R-squared	0.332	0.338	0.444	0.449
Industry Fixed Effects	Y	Y	Y	Y
Country Fixed Effects	Y	Y	Y	Y
Year Fixed Effects	Y	Y	Y	Y

Table 5: Location of investors

Our sample includes 224 unique investors from 24 countries, 90 of whom served at least once as lead investor. An investor is self-identified as one of three categories, asset owner, investment manager, or service provider when signing up as PRI signatory. This table also reports for each country the average AUM (in $billion), as self-reported by asset owners and investment managers on PRI's website. We list the top three investors (by AUM) under each category for each country. Num denotes number of investors, Num leads denotes number of lead investors. In the names, AM denotes Asset Management, IM Investment Management, IMs Investment Managers, and SF Superannuation Fund. Abbreviated names are defined in footnote 8 of the paper. 18 investors are missing from PRI's original signatory list: AUM is unavailable for 1 Australian, 3 Brazilian, 2 Canadian, 2 German, 2 UK, 1 Dutch, 1 Norwegian, 1 New Zealand, and 5 US organizations.

A: All Investors			B: Asset Owners			C: Investment Managers			D: Service Providers	
Investor location	**Num**	**Num leads**	**Num**	**Avg. AUM**	**Top three owners by AUM**	**Num**	**Avg. AUM**	**Top three managers by AUM**	**Num**	**Top providers**
United Kingdom	42	17	14	49	Old Mutual, USS, Railways Pension Trustee	24	200	LGIM, Insight Investment, Schroders	4	LAPFF, EOS, PIRC, Inflection Point Capital Management
United States	40	15	14	64	CalPERS, CalSTRS, New York State Local Retirement System	21	147	T. Rowe Price, TIAA - CREF, AllianceBernstein	5	As You Sow, ICCF, ISS, Bloomberg, FAFN
Nether-lands	21	10	5	69	Stichting Pensioenfonds Zorg en Welzijn, PME, Achmea	15	134	APG AM, AEGON AM, PGGM Investments	1	Sustainalytics
Canada	20	11	7	72	CDPQ, CPPIB, British Columbia Municipal Pension Plan	11	67	BMO Global AM, TD AM, British Columbia IM Corp.	2	RRSE, SHARE
Sweden	17	11	11	36	SEB Life and Pension, AMF, Skandia	6	79	Nordea, SEB, Swedbank Robur	0	
Australia	15	3	8	22	AustralianSuper, Victorian Funds Management Corp., CSC	6	33	Colonial First State Global AM, Alphinity IM, Solaris IM	1	Australian Council of Superannuation Investors
France	14	8	4	439	AXA Group, ERAFP	10	313	Amundi, AXA IMs, BNP Paribas Investment Partners	0	
Germany	8	3	2	1	VERKA VK Kirchliche Vorsorge VVaG, Steyler Bank GmbH	4	595	Deutsche AM, Allianz Global Investors, Union Investment	2	Dreilinden gGmbH, VIP eV
Norway	6	2	6	225	NGPFG, KLP, Storebrand AM	0			0	
South Africa	6	1	1	119	Government Employees Pension Fund of South Africa	5	24	Investec AM, Momentum Outcome Based Solutions, 27Four IMs	0	
Switzer-land	5	2	1	0	PeaceNexus Foundation	3	102	Bank J. Safra Sarasin, Vontobel Holding, RobecoSAM	1	Fondation Guilé
Brazil	4	1	1		Mongeral Aegon Seguros e Previdência	2		FIR Capital, Santa Fé Portfolios	1	KEY Associados
Finland	4	0	3	31	Keva, Ilmarinen Mutual Pension Insurance Co., Church Pension Fund	1	10	LocalTapiola AM	0	
New Zealand	4	0	4	17	Accident Compensation Corp., New Zealand SF, Government SF Authority	0			0	
Spain	4	0	3	3	Pensions Caixa 30 FP, BBVA Fondo de Empleo, Repsol II Fondo de Pensiones	1	5	Ibercaja Pensión E.G.F.P., S.A	0	
Austria	3	2	0			3	28	Erste AM GmbH, Raiffeisen Capital Management, C-QUADRAT AM GmbH	0	
Ireland	2	0	1	9	Ireland Strategic Investment Fund	1	10	KBI Global Investors	0	
Japan	2	1	0			2	358	Sumitomo Mitsui Trust Bank, T&D AM Co	0	
Luxem-bourg	2	1	0			2	60	Candriam Investors Group, Sparinvest Group	0	
Belgium	1	0	0			1	31	Degroof Petercam AM	0	
Denmark	1		1	109	ATP	0			0	
Italy	1	1	0			1	3	Etica SGR	0	
Mauritius	1	0	0			1	0.1	Sustainable Capital	0	
Singapore	1	1	0			1	4	Arisaig Partners (Asia) Pte	0	
Total	*224*	*90*	*86*			*121*			*17*	

Table 6: Characteristics of investors

This table presents selected characteristics of the investors involved in the collaborative engagements with the target firms. Panel A summarizes the number of engagements participated or led, AUM and Glassdoor employee rating by the 224 investors and 90 lead investors involved in collaborative engagements. AUM is not available for service providers. Panel B lists the top 10 investors by the number of engagements they participated in. In this panel, CPPIB is the Canada Pension Plan Investment Board, and NI LGO denotes the Northern Ireland Local Government Officers' Superannuation Committee. Panel C lists the top 10 lead investors by the number of engagements they led. Employee rating is the latest overall employee rating hand-collected from the Glassdoor website in July 2018 and it ranges from 0 to 5, with a higher value indicating superior employee satisfaction. IM denotes Investment Manager, AO denotes Asset Owner, and SP denotes Service Provider.

Panel A: Investors size, engagements, and holding

	N	Mean	Min	Q1	Median	Q3	Max
All 224 investors, including 86 Asset Owners, 121 Investment Managers, 17 Service Providers							
Num. of engagements participated	224	195.37	1	32	89	257	1,018
AUM ($b)	204	115.26	0	3	23	103	1,675
Employee rating	104	3.53	1.40	3.30	3.60	3.80	4.80
90 lead investors, including 24 Asset Owners, 61 Investment Managers, 5 Service Providers							
Num. of engagements participated	90	285.56	4	55	149	502	1,018
Num. of engagements led	90	43.43	5	14	28	61	185
AUM ($b)	85	136.34	0	8	36	146	1,504
Employee rating	50	3.59	2.20	3.30	3.60	4.00	4.80

Panel B: Top 10 investors by engagements

Investor Name	Headquarter Country	Cate-gory	AUM ($b)	Num. of engagements participated	Num. of engagements led	Num. of projects participated	Employee rating	Signature date
Aviva Investors	United Kingdom	IM	438.2	1,018	13	16	3.4	27 Apr 06
Boston Common Asset Mgt.	United States	IM	2.2	978	141	21		17 Dec 08
Robeco	Netherlands	IM	146.2	908	86	14	4.4	4 Dec 06
Amundi	France	IM	1158.7	898	20	11	3.5	27 Apr 06
NI LGO	United Kingdom	AO	7.4	867	0	10		18 Sep 07
Candriam Investors Group	Luxembourg	IM	109.1	857	0	11	3.1	26 Jun 06
CPPIB	Canada	AO	210.1	832	13	9	3.7	27 Apr 06
MN	Netherlands	IM	131.9	809	97	16	2.7	2 Mar 09
The Cooperative Asset Mgt.	United Kingdom	IM	2.7	803	56	13	3.9	27 Apr 06
NZ Superannuation Fund	New Zealand	AO	23.2	799	0	14		27 Apr 06

Table 6: Characteristics of investors (continued)

Panel C: Top 10 lead investors by engagements

Investor Name	Headquarter Country	Category	AUM ($b)	Num. of engagements participated	Num. of engagements led	Num. of projects led	Employee rating	Signature date
APG Asset Mgt.	Netherlands	IM	523.1	318	185	5	4.0	28 Sep 09
Hermes Investment Mgt.	United Kingdom	IM	34.3	306	182	8	3.0	27 Apr 06
Hermes Equity Ownership Services	United Kingdom	SP		228	182	8	3.0	4 Jul 13
Boston Common Asset Mgt.	United States	IM	2.2	978	141	9		17 Dec 08
PGGM Investments	Netherlands	IM	220.3	624	124	5	4.1	1 Jan 08
ACTIAM	Netherlands	IM	58.6	719	101	7		7 May 06
Martin Currie Investment Mgt.	United Kingdom	IM	14.4	40	98	3	3.1	31 Jul 09
MN	Netherlands	IM	131.9	809	97	6	2.7	2 Mar 09
Threadneedle Asset Management Ltd	United Kingdom	IM	129.7	417	96	4	3.4	27 Apr 06
BMO Global Asset Management	Canada	IM	237.0	542	87	7	3.5	27 Apr 06

Table 7: Determinants of decision to engage

This table reports OLS regression results on the determinants of a signatory becoming a lead or supporting investor in an engagement. The first two columns analyze the determinants of being involved in engagements for (1) engagements as a whole and (2) for engagements without lead investors, respectively. In Columns (1) and (2), the dependent variable is defined as one if a signatory pledges involvement in a particular engagement, and zero otherwise. For each engagement, all 224 signatories in our sample are potential candidates for involvement. Columns (3) and (4) analyze the determinants of being a lead investor and a supporting investor for engagements with lead investors. In Columns (3) and (4), the dependent variable is defined as one if an investor in a particular engagement takes the lead and supporting role, respectively, and zero otherwise. Only engagements with lead investors are used in this analysis. In Column (3), only signatories that are involved in the engagement are considered as candidates for the lead role. Target firm market capitalization is measured at the end of fiscal year immediately before the project's start date. Signatory holdings in the target and signatory portfolio value are measured at the end of the calendar quarter immediately before the engagement start date. All variables are defined in Appendix C. All regressions incorporate target firm fixed effects, signatory fixed effects, project fixed effects and calendar year of engagement start date fixed effects. Standard errors are clustered at the target firm level and signatory level. All continuous variables are winsorized at 1st and 99th percentile levels. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Engagements with all investors	**Engagements w/o lead investors**	**Engagements with lead investors**	
	Becoming involved	*Becoming involved*	*Becoming a Lead Investor*	*Becoming a Supporting Investor*
	(1)	**(2)**	**(3)**	**(4)**
Target market cap ($tr)	0.000	0.002	0.162	0.007
	(0.01)	(1.42)	(0.95)	(0.50)
Target is Domestic	0.029***	0.028**	0.214***	0.009
	(3.35)	(2.51)	(3.83)	(0.95)
Long-term institutional holding in target	0.001	0.000	0.086	-0.008
	(0.96)	(0.01)	(1.16)	(-1.14)
Joined PRI before Project Start	0.084***	0.060***	0.000	0.092**
	(4.44)	(2.99)	(0.01)	(2.67)
Signatory has Past Projects	-0.114*	-0.119		-0.055*
	(-1.88)	(-1.47)		(-2.01)
Signatory has Other Ongoing Projects	-0.056*	-0.052		-0.072***
	(-1.95)	(-1.11)		(-3.29)
Signatory has Past Projects as Lead			-0.015	
			(-0.79)	
Signatory has Other Ongoing Projects as Lead			-0.044***	
			(-4.26)	
Signatory Exposure to Target	-0.003	-0.022	0.093***	0.010
	(-0.16)	(-1.09)	(3.04)	(0.83)
Signatory Holding in Target	-0.005	-0.003	0.088**	-0.004
	(-0.42)	(-0.17)	(2.30)	(-0.38)
Holding in Target by Lead Investors				0.055
				(0.53)
Engagement has Domestic Lead(s)				0.002
				(1.01)
Observations	374,304	281,344	9,241	91,264
Adj. R-squared	0.231	0.316	0.179	0.172
Target Fixed Effects	Y	Y	Y	Y
Project Fixed Effects	Y	Y	Y	Y
Signatory Fixed Effects	Y	Y	Y	Y
Year Fixed Effects	Y	Y	Y	Y

Table 8: Determinants of successful engagements

This table examines the determinants of success by comparing successful and unsuccessful engagements using probit regressions. The dependent variable D_Success is defined as one for the successful engagements and zero for unsuccessful engagements. Coefficients are presented as marginal effects. Target firm characteristics are measured from the fiscal year immediately before the engagement project start date. The first three columns include all engagements with data on success and regression variables and the last three columns only include engagements with at least one lead investor. Engagement has lead investor(s) is defined as one if an engagement has at least one lead investor. In Panel A, investor influence is measured as the total value of shareholding in the target, total AUM, and average employee ratings within the investor group, supporting investors, or lead investors. Employee rating is the latest overall employee rating hand-collected from the Glassdoor website in July 2018 and it ranges from 0 to 5, with a higher value indicating superior employee satisfaction. In Panel B, we classify investors based on the geographic location of their headquarters. Domestic (Foreign) investors are those with headquarters located in the same (different) country as the target firm. All variables are defined in Appendix C. All regressions incorporate calendar year of engagement start date fixed effects. Standard errors are clustered at the target firm level. All continuous variables are winsorized at 1st and 99th percentile levels. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Panel A: Influence of lead investor

	Prob (D_Success=1)					
	Engagements with all investors			Engagements with lead investor		
	Investor influence measured as:					
	Log(1+Total investors holding $m in target)	Log(1+Total AUM $b)	Avg. Employee Rating	Log(1+Total investors holding $m in target)	Log(1+Total AUM $b)	Avg. Employee Rating
	(1)	(2)	(3)	(4)	(5)	(6)
Target market cap ($tr)	-0.424***	-0.340***	-0.318***	-0.253	-0.206	-0.214
	(-3.25)	(-2.83)	(-2.78)	(-1.27)	(-1.05)	(-1.14)
Target market-to-book	-0.020***	-0.019**	-0.017**	-0.019*	-0.019*	-0.036**
	(-2.61)	(-2.52)	(-2.28)	(-1.69)	(-1.68)	(-2.00)
Target leverage	-0.087	-0.119	-0.112	-0.109	-0.316	-0.502*
	(-0.76)	(-1.07)	(-1.00)	(-0.50)	(-1.44)	(-1.68)
Long-term institutional holding in target	0.081	0.281***	0.278***	-0.031	0.262**	0.124
	(0.84)	(3.58)	(3.54)	(-0.21)	(2.05)	(0.80)
Engagement has lead investor(s)	0.163***	0.252***	0.208***			
	(3.09)	(4.26)	(3.67)			
Investor group influence	0.029***	0.076***	0.430**			
	(3.39)	(3.37)	(2.41)			
Supporting investor influence				0.031**	0.041***	0.473
				(2.49)	(3.20)	(1.48)
Lead investor influence				0.037**	0.039**	0.215***
				(2.45)	(2.29)	(2.97)
Observations	1,007	1,007	1,002	267	267	162
Pseudo R-squared	0.130	0.130	0.128	0.132	0.137	0.192
Year Fixed Effects	Y	Y	Y	Y	Y	Y

Table 8: Determinants of successful engagements (continued)

Panel B: Influence of investor location

	Prob (D_Success=1)			
	Engagements with all investors		Engagements with lead investor	
	Investor influence measured as:			
	Log(1+Total investors holding $m in target)	Log(1+Total AUM $b)	Log(1+Total investors holding $m in target)	Log(1+Total AUM $b)
	(1)	(2)	(3)	(4)
Target market cap ($tr)	-0.426***	-0.336***	-0.267	-0.197
	(-3.15)	(-2.77)	(-1.27)	(-0.97)
Target market-to-book	-0.020***	-0.018**	-0.016	-0.018
	(-2.59)	(-2.51)	(-1.53)	(-1.64)
Target leverage	-0.085	-0.106	-0.122	-0.324
	(-0.75)	(-0.95)	(-0.57)	(-1.52)
Long-term institutional holding in target	0.100	0.244***	-0.045	0.209
	(1.06)	(3.01)	(-0.31)	(1.60)
Engagement has lead investor(s)	0.160***	0.229***		
	(3.05)	(3.91)		
Foreign investor group influence	0.024***	0.058***		
	(2.86)	(2.74)		
Domestic investor group influence	0.009	0.010		
	(1.02)	(1.45)		
Foreign supporting investor influence			0.023*	0.036***
			(1.75)	(2.79)
Domestic supporting investor influence			0.010	0.005
			(0.67)	(0.30)
Foreign lead investor influence			0.023	0.031**
			(1.41)	(2.07)
Domestic lead investor influence			0.074***	0.052**
			(3.23)	(2.51)
Observations	1,007	1,007	267	267
Pseudo R-squared	0.129	0.128	0.140	0.142
Year Fixed Effects	Y	Y	Y	Y

Table 9: Target long-term stock market performance

This table examines the long-term stock market performance of target firms after engagements. The dependent variables are abnormal annual buy-and hold returns, defined as target firm 12-month buy-and-hold return minus market 12-month buy-and-hold return calculated using MSCI return index, and annual cumulative abnormal returns (CARs), defined as target firm monthly return minus MSCI monthly return cumulated over 12 months. We keep 24 months before and 36 months after the engagement start date. Year+1 includes month 0 to month 11. Year+2 includes month 12 to month 23. Year+3 includes month 24 to month 35. Month 0 is the monthly return at the same month when the project started. Post-engagment$_{Year+1}$ is defined as one for event window Year+1. Post-engagment$_{Year+2\&3}$ is defined as one for event window Year+2 and Year+3. Target firm characteristics are obtained from the corresponding fiscal year end. All variables are defined in Appendix C. Panel A contrasts engagements with lead investors with those without. Panel B contrasts successful engagements with unsuccessful ones. Panel C contrasts successful engagements with lead investors with unsuccessful engagements without lead. Bold numbers indicate the coefficients are statistically different across the subsamples. All regressions incorporate target firm fixed effects and calendar year fixed effects. Standard errors are clustered at the target firm level. All continuous variables are winsorized at 1st and 99th percentile levels. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Abnormal Annual Buy-and-Hold Returns (MSCI)		**Annual CARs (MSCI)**	
Panel A: Engagements with vs. without lead				
	w Lead	**w/o Lead**	**w Lead**	**w/o Lead**
Post-engagement$_{Year+1}$	**0.046*** **	-0.008	**0.035** **	0.001
	(2.66)	(-0.70)	**(2.16)**	(0.13)
Post-engagement$_{Year+2\&+3}$	**0.034***	-0.007	**0.033***	-0.001
	(1.91)	(-0.70)	**(1.97)**	(-0.07)
Target Market Cap ($t)	0.197	-0.195	0.352***	-0.121
	(1.41)	(-0.93)	(2.86)	(-0.69)
Target Market-to-book	0.030***	0.040***	0.034***	0.033***
	(4.36)	(5.04)	(4.79)	(5.03)
Target Leverage	-0.414***	-0.488***	-0.389***	-0.365***
	(-3.20)	(-3.20)	(-2.98)	(-2.69)
Target Return Volatility	1.410***	1.917***	1.666***	1.943***
	(4.29)	(7.77)	(4.75)	(9.55)
Observations	1,948	5,559	1,948	5,559
Adj R-squared	0.211	0.122	0.204	0.142
Panel B: Engagements successful vs. unsuccessful				
	Success	**Unsuccess**	**Success**	**Unsuccess**
Post-engagement$_{Year+1}$	**0.036** **	-0.036*	**0.041** **	-0.025
	(2.08)	(-1.91)	**(2.54)**	(-1.54)
Post-engagement$_{Year+2\&+3}$	0.004	-0.020	0.011	-0.016
	(0.19)	(-0.91)	(0.62)	(-0.82)
Target controls	Y	Y	Y	Y
Observations	1,988	2,647	1,988	2,647
Adj R-squared	0.157	0.166	0.160	0.196
Panel C: Successful engagements with lead vs. unsuccessful engagements without lead				
	Success & Lead	**Unsuccess & w/o Lead**	**Success & Lead**	**Unsuccess & w/o Lead**
Post-engagement$_{Year+1}$	**0.064** **	-0.051**	**0.060** **	-0.035*
	(2.43)	(-2.29)	**(2.37)**	(-1.87)
Post-engagement$_{Year+2\&+3}$	0.026	-0.020	0.033	-0.015
	(0.84)	(-0.80)	(1.10)	(-0.70)
Target controls	Y	Y	Y	Y
Observations	887	2,249	887	2,249
Adj R-squared	0.157	0.157	0.152	0.192

Table 10: Target accounting performance

This table examines the change in target firm's accounting and E&S engagements. For each target firm, we keep the data two years before and three years after the start of the engagement whenever the information is available. Post *Year+N* is defined as one for observations obtained from the *Nth* year after the start of engagement. Country-industry controls are sample median of the dependent variable for all non-target peer firms as defined in Table 3. All variables are defined in Appendix C. Panel A contrasts engagements with lead investors with those without. Panel B contrasts successful engagements with unsuccessful ones. Panel C contrasts successful engagements with lead investors with unsuccessful engagements without lead. Bold numbers indicate the coefficients are statistically different across the subsamples. All regressions incorporate target firm fixed effects and calendar year fixed effects. Standard errors are clustered at the target firm level. All continuous variables are winsorized at 1st and 99th percentile levels. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	ROA		**Sales growth**		**Stock return volatility**	
Panel A: Engagements with vs. without lead						
	w Lead	**w/o Lead**	**w Lead**	**w/o Lead**	**w Lead**	**w/o Lead**
Post-engagement$_{Year+1}$	0.002	0.000	0.008	0.010	-0.002	0.001
	(0.71)	(0.29)	(0.72)	(1.51)	(-1.30)	(0.84)
Post-engagement$_{Year+2\&+3}$	**0.012*** **	0.002	0.027**	0.017***	-0.003	-0.002
	(2.86)	(1.11)	(2.10)	(2.77)	(-1.29)	(-1.61)
Target Market Cap ($tr)	0.218**	0.100*	0.709***	0.525***	-0.084***	-0.042*
	(2.16)	(1.95)	(3.23)	(2.98)	(-3.63)	(-1.70)
Target Market-to-book	0.005**	0.006***	0.017***	0.009**	-0.000	0.000
	(2.30)	(4.96)	(3.21)	(2.19)	(-0.48)	(0.25)
Country-industry control	0.110***	0.089***	0.301***	0.342***	0.178***	0.204***
	(2.68)	(2.84)	(7.66)	(10.85)	(5.09)	(8.07)
Observations	1,915	5,711	1,898	5,671	1,889	5,577
Adj R-squared	0.724	0.755	0.418	0.300	0.650	0.598
Panel B: Engagements successful vs. unsuccessful						
	Success	**Unsuccess**	**Success**	**Unsuccess**	**Success**	**Unsuccess**
Post-engagement$_{Year+1}$	**0.005**	-0.004*	**0.033*** **	-0.004	**-0.003**	0.003
	(1.44)	(-1.72)	**(2.95)**	(-0.30)	**(-1.21)**	(1.37)
Post-engagement$_{Year+2\&+3}$	**0.009** **	-0.003	**0.033** **	-0.001	-0.001	-0.003
	(2.49)	(-0.72)	**(2.57)**	(-0.05)	(-0.24)	(-1.20)
Target controls	Y	Y	Y	Y	Y	Y
Country-industry control	Y	Y	Y	Y	Y	Y
Observations	1,983	2,671	1,968	2,655	1,947	2,608
Adj R-squared	0.707	0.737	0.437	0.398	0.630	0.606
Panel C: Successful engagements with lead vs. unsuccessful engagements without lead						
	Success w Lead	**Unsuccess w/o Lead**	**Success w Lead**	**Unsuccess w/o Lead**	**Success w Lead**	**Unsuccess w/o Lead**
Post-engagement$_{Year+1}$	**0.009**	-0.004	0.035*	-0.002	**-0.005***	0.004*
	(1.18)	(-1.50)	(1.91)	(-0.17)	**(-1.97)**	(1.76)
Post-engagement$_{Year+2\&+3}$	**0.021** **	-0.004	0.038	-0.007	-0.003	-0.002
	(2.58)	(-1.09)	(1.54)	(-0.41)	(-0.85)	(-0.51)
Target controls	Y	Y	Y	Y	Y	Y
Country-industry control	Y	Y	Y	Y	Y	Y
Observations	871	2,280	864	2,265	856	2,227
Adj R-squared	0.678	0.741	0.400	0.256	0.639	0.599

Table 11: Target shareholding by investors

This table examines the change in target firm's shareholdings by investors and E&S engagements. For each target firm, we keep the data two years before and three years after the start of the engagement whenever the information is available. Post *Year+N* is defined as one for observations obtained from the *Nth* year after the start of engagement. Country-industry controls are sample median of the dependent variable for all non-target peer firms as defined in Table 3. All variables are defined in Appendix C. The first two columns report the results of the analyses with the subsample of engagements without a lead. The last four columns report the results of the analyses with the subsample of engagements with lead. Bold numbers indicate the coefficients are statistically different across the subsamples with successful and unsuccessful engagements. All regressions incorporate target firm fixed effects and calendar year fixed effects. Standard errors are clustered at the target firm level. All continuous variables are winsorized at 1st and 99th percentile levels. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Engagements w/o lead		**Engagements with lead**			
	Log(1+Total investors holding $m in target)		**Log(1+Lead investor holding $m in target)**		**Log(1+Supporting investor holding $m in target)**	
	Success	**Unsuccess**	**Success**	**Unsuccess**	**Success**	**Unsuccess**
Post-engagement$_{Year+1}$	**0.067**	-0.147**	0.557**	0.134	-0.609***	-1.247*
	(1.08)	(-2.15)	(2.24)	(1.22)	(-2.91)	(-1.91)
Post-engagement$_{Year+2\&+3}$	**0.094**	-0.247**	**1.114****	-0.032	-1.006**	-2.429*
	(0.83)	(-1.97)	**(2.38)**	(-0.13)	(-2.55)	(-1.84)
Target Market Cap ($tr)	12.870***	0.730***	-5.303*	0.558	-0.678	0.284
	(3.27)	(3.56)	(-1.73)	(0.77)	(-0.28)	(0.37)
Target Market-to-book	0.144**	0.102***	0.108	0.011	0.079	0.066
	(2.50)	(3.77)	(1.64)	(0.13)	(1.47)	(0.60)
Country-industry control	0.139**	0.293***	0.426	-0.361	0.498***	0.302
	(2.02)	(5.04)	(1.62)	(-0.35)	(3.48)	(1.20)
Observations	1,116	2,287	871	390	871	390
Adj R-squared	0.941	0.925	0.744	0.791	0.869	0.870