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Coordinated Engagements

Finance Working Paper N° 721/2021
January 2021

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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. A two-tier engagement strategy, combining lead investors with supporting investors, is effective in successfully achieving the stated engagement goals and is followed by improved target performance. An investor is more likely to lead the collaborative dialogue when the investor's stake in and exposure to the target firm are higher, and when the target is domestic. Success rates are elevated when lead investors are domestic, and when the investor coalition is capable and influential.

Keywords: Engagement; dialogue; collaboration; coordination; corporate social responsibility (CSR); environmental, social, and governance (ESG); socially responsible investing (SRI)

JEL Classifications: G15, G23, G32, G34, G39.

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Coordinated Engagements

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Coordinated Engagements

Small investors, activists and NGOs were for a long time the driving force to persuade big companies to take environmental and social (E&S) issues seriously. They protested outside business headquarters, filed shareholder resolutions and spoke out at annual meetings. In contrast, large investors tended to remain silent, at least in public, and only in recent years did they begin to pay more attention and play a more significant role. For instance, following the 2016 Paris Agreement an increasing proportion of investors began to focus on climate change. In 2019 one of the largest business groups in the United States released a statement urging companies to deliver value to customers, invest in employees, deal fairly and ethically with suppliers, and support communities, while also generating long-term value for shareholders (Business Roundtable (2019)). By 2020 the Climate Action 100+ campaign, backed by 518 global investors with $47 trillion in assets, committed to cutting emissions from 161 companies that generate 80% of global industrial greenhouse gas emissions. Worldwide assets managed according to responsible investment criteria will next be quantified in 2021 by the Global Sustainable Investment Alliance, who are expected to report an asset base substantially higher than the previous estimate of $31 trillion (GSIA (2019)). The Coalition for Inclusive Capitalism, with 31 organizations representing over $30 trillion in assets, is promoting metrics for assessing value creation while also focusing on business stakeholders (EPIC (2019)).

Coordinated activities like these have emerged from efforts to engage business, government and civil society leaders in making capitalism more sustainable and inclusive, and to encourage responsible behavior in a community that includes leading investment managers, asset owners, corporations and advisors. The importance of E&S issues has become elevated in the investment world and the pressures are increasingly global (Krüger, Sautner, and Starks (2020)). At the same time, thought-leaders such as Henderson (2020), Elkington (2020) and Mazzucato (2021), have demanded a "reset" in capitalism and promoted a new agenda for business emphasizing that the long-term health of business depends on delivering profit with purpose. In recent research North American executives have argued that a high-quality corporate culture is both desirable and value enhancing (Graham, Grennan, Harvey, and Rajgopal (2019)) and empirical evidence supports this contention (Guiso, Sapienza, and Zingales (2015), Edmans, Li, and Zhang (2020)). The desire to work for a shared goal has underpinned collaborative initiatives such as those discussed above. However, there is still a need for rigorous evidence on the effectiveness of this process and on how best to organize it.

This paper examines coordinated engagements on corporate social responsibility (CSR). It is the first to study the nature and benefits of coordinated, collaborative and international efforts to influence investee companies on E&S 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 (the UN), PRI has become the leading network and the largest initiative worldwide for investors with a commitment to responsible ownership and long-term, sustainable returns. The PRI Collaboration Platform provides objectively collected, carefully logged, and accurately dated records on environmental, social and governance (ESG) engagements (see Section 2.2 for additional discussion).

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. In addition, 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. Furthermore, collaboration in ESG engagements facilitates risk-sharing among active owners.

Collaborative efforts 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 (and outside) the group. Relatedly, competition between institutions (through reputation and superior performance) makes collaboration difficult and requires incentives in the coalition to be set carefully. Additionally, 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. Lastly, 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.

Our study focuses on coordinated engagements that address E&S concerns. Our dataset is granular and comprehensive, including 31 PRI engagement projects initiated between 2007 and 2015. Each project is originated and coordinated by PRI but is carried out by a group of investment organizations, including investment managers, asset owners, and service providers. A project involves dialogues 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, a group comprises 26 organizations (2 domestic and 24 foreign) 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 1,654 engagement sequences targeting 960 unique publicly listed

firms located in 63 countries. These engagements encompass a total of 224 unique investment organizations. There are 87 asset owners and 121 investment managers from 24 countries, representing aggregate assets under management (AUM) of $23 trillion and an average AUM of $112 billion. Additionally, there are 16 service providers. Most 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 or retail trade, and mining sectors. Targeted companies are most commonly located in the United States (US), United Kingdom (UK), 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 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". We also find that target firms have higher overall ESG ratings, relative to peers. This reflects PRI's proactive approach of identifying potential ESG issues in an industry or region rather than reactively fixing ESG problems as they arise. It is also consistent with a strategy of targeting bellwether firms who already have a reputation for being responsible and (on balance) would wish to avoid a downgrade.

We document that, in collaborative engagements, leadership is decisive. Success rates are substantially elevated 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 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

[1] An example is the Climate Action 100+ initiative. This initiative, aligned with the Paris Agreement, involves engaging with firms to improve governance on climate change, curb emissions and strengthen climate-related financial disclosures. Coordination is provided by PRI and four partner organizations: Asia Investor Group on Climate Change (AIGCC), Ceres, Investor Group on Climate Change (IGCC), and Institutional Investors Group on Climate Change (IIGCC).

[2] The two-tier engagement strategy resembles the collaborative style of VC investors with general partners as the leading investors and limited partners as the supporting investors (Gompers and Lerner (2004)). 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)).

interventions with target firms.[3] In the model of Brav, Dasgupta, and Mathews (2019), wolf-pack members, as delegated portfolio managers, are incentivized to overcome the free-rider problem through their reputational concerns about attracting investment flows. 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 (Dimson, Karakaş, and Li (2015)). 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—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.[4] More importantly, the PRI Collaboration Platform facilitates explicit coordination of E&S activities.

Being part of a coalition is a mutual decision made by both PRI and the signatory. To understand the economic incentives behind the formation of a coalition, we analyze the determinants of a signatory becoming a collaborating organization in E&S engagements. Among 1,733 PRI signatories in our sample, only 224 have joined a coalition at least once during our sample period. Compared with the remaining 1,509 PRI signatories, we find the collaborating signatories more likely to be pension plans and more likely to have signed up early in the life of PRI. Such collaborating signatories tend to have a formal engagement process involving internal staff, and to be active within non-PRI collaborations, suggesting that having internal resources dedicated to E&S engagement is important.

We observe an inverse U-shaped relation between signatory size (measured by AUM) and the likelihood of joining a coalition. We attribute this to two contrasting aspects of investor influence on engagements. On the one hand, large signatories may prefer to engage alone if they have sufficient resources and their influence over target firms is substantial. On the other hand, engagements also require commitment, resources and a certain clout over the target firm, and when the signatory is too small it may not have the means to contribute adequately to the coalition. These opposing forces make collaboration particularly appealing for mid-sized

[3] In wolf-pack activism, one or more sizeable blockholders act as "lead" activist, with other smaller blockholders serving as supporting "wolf-pack" members (Brav, Dasgupta, and Mathews (2019)). The implicit, rather than explicit, coordination among the hedge fund activists in the US helps to avoid the regulatory costs of acting in concert (Wong (2020)). Doidge, Dyck, Mahmudi, and Virani (2019) discuss how explicit coordination mechanisms for institutional investors in engaging target firms for governance issues may help overcome the free-rider problem.

[4] Consistent with this assertion, Gibson, Glossner, Krüger, Matos, and Steffen (2020) find higher investor flows to PRI signatories, compared to non-PRI institutions, controlling for past returns, past flows and portfolio characteristics.

investors. We also find that an investor is more likely to engage when the target is domestic. This may reflect home bias in institutional portfolio management, reputational concerns among a local client base, shared interests, ease of communication and information sharing between the investor and local firms.

Like the decision to be part of the coalition, the decision about leading an engagement is also mutually agreed between PRI and the lead.[5] We therefore analyze the economic incentives for becoming a lead investor. An average two-tier engagement has 1.4 lead and 21 supporting investors. Engagement costs are substantially higher for lead investors relative to supporting ones, as the former bear the major responsibility for meetings with target firms, reporting back to PRI, and coordinating with supporting organizations. To achieve a favorable engagement outcome and overcome disincentives from free-riding concerns within the coalition, lead investors should have the necessary resources, skill, motivation, and "skin in the game". Comparing characteristics across all investors, we find that lead investors tend to be from Scandinavian countries, have a formal process to engage using internal staff, and actively collaborate in E&S initiatives besides PRI. Pension plans are less likely to lead an engagement. At the engagement level, holding investor characteristics constant, we find that an investor is more likely to lead the collaborative dialogue when its stake in and 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. An investor often allocates more effort to monitor firms to which it has larger exposure, as measured by the weight of its holding value in the target relative to the investor's overall portfolio value (Fich, Harford, and Tran (2015)). In addition, we find an investor is more likely to lead when the target firm is domestic, suggesting that it may benefit from lower logistical costs, better local knowledge, and higher engagement gains through reputational enhancement. This is consistent with the finding in Kim, Wan, Wang, and Yang (2019) that institutional shareholders are especially likely to commit resources to ESG engagement with companies that are located nearby. The evidence also suggests that leading a coordinated engagement is costly and time-consuming: an investor is less likely to lead if the organization is already busy with leading other ongoing PRI projects.

After the lead investors are decided for each engagement, PRI and the lead turn to other investors for additional support.[6] To overcome free-riding by supporting investors, PRI expects supporting organizations to contribute actively to the engagement, although in an abridged way relative to the lead. Conditional on

[5] 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. Lead investors for engagement are likely to be drawn from roundtable participants, while some participants may play a supporting role.

[6] Supporting investors are either invited by PRI or the leader to join an engagement, or they could elect to join via PRI's Collaboration Platform available online.

knowing the lead investor(s) in the coalition, we next analyze the determinants of being a supporting investor. Interestingly, we find that having a target firm that is domestic no longer plays an important role in determining the choice of supporting signatory. 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 that supporting investors will be actively involved in each engagement. We also find that having a domestic lead increases, while having a pension plan as a lead decreases, the likelihood of an investor joining an engagement as supporting investor. These findings, along with the earlier results discussed above, suggest that supporting investors expect their leads to be effective in the engagement.

We now turn to 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 signatories' aggregate holding in the target firm, total AUM, and incorporation of formal process of engagements by internal staff—is positively related to engagement success. We also find that firms in countries with French legal origin are more likely to achieve the objectives set by signatories in the E&S engagements, compared to the ones with English legal origin. More strikingly, having a lead investor(s) increases the success rates substantially (by 26%–39%, depending on the specification). Success rates are substantially improved when the proportion of pension plans in the coalition is higher, though pension plans tend to lead less and when they lead the chances of success is lower. Analyzing the engagements conditioning on a two-tier structure, we find that the success rate is higher when the lead investor is from the same country as the targeted firm. This is consistent with home bias, namely an actual or aspired holding in companies whose shares are traded on a market in which the investor would typically hold an overweight position. The success rate is further improved by the influence of the lead (particularly local leads) and supporting investors, 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 and help retain the existing investors (Lewellen and Lewellen (2019)). Our research indicates that leadership, local expertise, and influential impact all play important roles in achieving successful engagement outcomes.

An important issue for investment managers is the financial performance of target firms after engagement. To evaluate stock market performance, we examine abnormal annual buy-and-hold returns and annual cumulative abnormal returns (CARs) over the MSCI benchmark. 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. These results provide further support for our finding that leadership in coalitions is associated with a positive shareholder outcome. Similarly, analyzing performance conditioning on engagement outcome, we find positive abnormal returns for the subsample of successful engagements, especially for the engagements with lead investors. In contrast, we find no change in stock market performance among target firms with unsuccessful engagements (regardless of whether the engagement was undertaken with or without a lead). Collectively, these findings suggest that coordinated engagements are value-enhancing for shareholders, especially when engagements are headed by a lead investor and/or are successful.

To provide further insights, we investigate return on assets (ROA), sales growth, stock return volatility, and the investors' post-engagement holdings in the target. We compare ROA, sales growth, and volatility in the target firms three years after the engagement commenced, relative to the pre-engagement levels of the respective measures for the target firms. Corroborating the results based on stock market performance, for the subsample of engagements with lead investors we find significant improvements in ROA and sales growth and decrease in the stock return volatility. This contrasts with engagements without lead, which are followed by no material change in ROA or stock return volatility, and by smaller improvement in sales growth. Conditioning on engagement outcome, we find improvements in ROA and sales growth for the subsample of successful engagements, especially for the engagements with lead investors. Lastly, we investigate investor shareholdings in target firms. We find a slight decrease in shareholdings by supporting investors when the engagements are successful, but there is no evidence of change in shareholdings by lead investors. The latter finding indicates that lead investors engaging with target firms on E&S issues are committed for the long-term (over three years) and do not exit from their investments after favorable returns from their successful engagements – a marked contrast to hedge fund activists.

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.[7] Our evidence indicates that, for maximum effect, coordinated engagements should preferably be headed by a leader that is well suited geographically, 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 (internal) resources.

[7] An alternative explanation is that PRI or collaborating investors are good at picking target firms who would outperform even in the absence of coordinated engagement. This is unlikely because not all engagements end with success and outperformance is only present in targets where success was achieved and/or a lead was present. See Section 4 for more discussion.

Our paper makes new contributions in four ways. First, to our knowledge this is the first research study examining the nature and impact of internationally coordinated engagements on E&S issues. Second, we analyze the dynamics of coordination and highlight the economic incentives 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.

1. Literature Review

Academic work on active ownership and investor engagement on ESG/CSR issues has extended recently in both breadth and depth. However, there are still major gaps in the literature. More than 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, and this is the challenge that we address in this paper.

1.1 Shareholder action on ESG

Although there have been several thousand published studies on ESG investing (Friede, Busch, and Bassen (2015)), the research fails even to indicate whether investors who pursue a responsible E&S approach can anticipate an enhanced or impaired portfolio return, including over the very long term. An exception is Dimson, Karakaş, and Li (2015), an investigation of an investment company's 2,152 engagements with US target companies. In that study, successful engagements were followed by positive abnormal returns, improved performance and governance, and increased institutional ownership, while unsuccessful engagements generated zero abnormal returns.

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. In a theoretical framework, Pastor, Stambaugh, Taylor (2021) model the investor's tradeoff between favorable CSR attributes and financial rewards.

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 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, Franks, Mayer, and Rossi (2009) analyze the private engagements of a UK activist fund and find that the fund outperformed 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)). Building upon this, Broccardo, Hart, and Zingales (2020) argue that in a competitive world, voice (engagement) is more effective than exit (divestment) in pushing firms to act in a socially responsible manner. 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 providing 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. It is informative to make a comparison with hedge fund activists whose holdings in target companies are typically smaller than institutional ownership in investee companies. Kedia, Starks and Wang (2020) find that cooperation between hedge funds and like-minded institutions increases the likelihood of success in engagements with investee companies.

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 can enable active owners to mitigate this risk. Fourth, many E&S issues, such as climate change and labor standards in supply chains, are borderless by nature. A successful resolution of these issues thus requires cross-border collaborations from various parties.

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 participants, while benefits are shared with a wider group of investors inside (or even outside) the coalition. 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 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 with its Collaboration Platform team, can substantially reduce these challenges.

In a recent theoretical work, Oehmke and Opp (2020) argue that coordination is one of the necessary conditions for socially responsible investors to have impact on firm behavior. Focusing on wolf-pack

activism, Brav, Dasgupta, and Mathews (2019) 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 theoretical 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.[8]

Empirical evidence supports the formation of implicit coordination among activist investors. Brav, Jiang, and Li (2019) 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. Defining the connected institutions as those each of which have more than 5% of the same firm, Crane, Koch, and Michenaud (2019) find that such connected institution act as coordinated group by voting together, particularly against low quality management proposals. Examining the trading patterns prior to 13D filings, Wong (2020) finds evidence consistent with coordinated effort among activist hedge funds, that is, lead activists orchestrate the "wolf packs" in hedge fund activism.

The evidence on the effectiveness of implicit coordination is mostly positive. Studying a sample of international hedge fund activists, Becht, Franks, Grant, Wagner (2017) report that engagements by multiple investors perform better than those by a single organization. Wong (2020) finds that the presence of a wolf pack is positively associated with the success of hedge fund campaigns. Crane, Koch, and Michenaud (2019) find that coordination strengthens governance via voice. An exception is Song and Szewczyk (2003), who study the effectiveness of implicit coordination among institutional investors via the Focus List released by the Council of Institutional investors (CII), an organization of public and private pension funds. The Focus List encourages institutional investors to direct activism to certain underperforming target firms without requiring explicit consultation among investors. They find very little evidence supporting the efficacy of shareholder activism coordinated via the Focus List.

Doidge, Dyck, Mahmudi, and Virani (2019) study explicit coordination via an investor collective action organization (ICAO). They analyze private engagements on corporate governance issues by Canadian

[8] In a recent work, Liang, Sun, and Teo (2020) find that PRI signatory hedge funds attract an economically and statistically meaningful 20.2% more flows per annum than do non-signatories.

Coalition for Good Governance (CCGG). They find that CCGG is more likely to target firms in which their collective voting power is higher. Firms engaged by CCGG are more likely to adopt corporate governance reforms on majority voting, say-on-pay, and compensation structure relative to those not engaged. Our study differs from theirs in several ways. First and foremost, we study the coordinated engagements on E&S issues while they study those on corporate governance topics. Second, whereas Doidge at al. examine targets and investors from a single country, we research a global collaboration with international targets and investors, and investigate the impact of location. Third, in contrast to Doidge et al. whose investor coalition is static, our investor group composition changes from project to project and from target to target, allowing us to explore the dynamics in engagement structure within the coalition and their effect on engagement outcome.

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.

The engagements studied in our paper are conducted by a large number of major institutional investors whose size and breadth of shareholdings should incentivize them to behave as universal owners. They are members of a global association (the PRI) that elevates the importance of taking a broad, social view, so smaller asset owners are likely to be favorably inclined to a universal-owner approach to investing. Evidence supports the claim that long-horizon investors prefer firms with better ESG practices; see, for example, Starks, Venkat, and Zhu (2018). In a similar vein, Dyck, Lins, Roth, and Wagner (2019) report that institutional investors demand stronger E&S performance from the firms in which they invest worldwide. This is in line with Hart and Zingales (2017), who argue that asset managers should invest according to the preferences of their investors.

If responsible investors are willing to pay more for the shares of companies that adhere to social values, subsequent investment returns can be expected to be impaired, at least marginally. This is confirmed in a comparison of PRI signatories relative to non-signatories which reports that signatories have slightly lower returns; see Gibson, Glossner, Krüger, Matos, and Steffen (2020). Consistent with this finding, Aragon, Jiang, Joenväärä, and Tiu (2019) report that adoption of socially responsible policies imposes a drag on the

performance of endowment funds. Dimson, Marsh and Staunton (2020a) report that over a period of 120 years, sin sectors (alcohol and tobacco) in the largest stock markets (the US and UK) have on average sold at a lower price-to-dividend ratio than other sectors and consequently performed better than any other sector with a complete history. There is thus some evidence that investors seek a larger return from stocks that are non-compliant with ESG values, and are willing to accept a modest reduction in investment returns as the price to be paid for a higher standard of investment behavior.

Bebchuk, Brav, Jiang, and Keusch (2020) 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 resonate with ours, illustrating that the chances of success in E&S engagements increase with investor influence which, in our study, is proxied by activist holdings in the target, and the quantum of the activist's assets under management.

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 UN -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 2020 PRI had 3,038 signatories from 71 countries, representing over $103 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, 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, representing the PRI's founding partners, the UNGlobal Compact and the UN Environment Programme Finance Initiative (https://www.unpri.org/pri/pri-governance).

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 UN. The annual signatory fee is scaled according to each signatory's category, type and assets under management. For instance, the 2019/20 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 £8,609, £13,943, and £8,609, respectively. The PRI Board increases fees in line with UK inflation. 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 (https://www.unpri.org/signatory-resources/become-a-signatory/318.article).

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 engagement 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 for direct signatory collaboration bypassing 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.[9] 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 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 (but diverse) resources. Such an engagement structure alleviates the coordination problems. Further, the free-rider problem in engagements through PRI Collaboration Platform is 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 configuration that bears some resemblance to private equity structures. 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.*"[10] 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, 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 and under the control of a third party. Second, each engagement involves a substantial number of independent organizations, which extends the potential insights from the research

[9] 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).

[10] Of course, these benefits of cooperation are not limited to E&S engagements. More broadly, Fisch and Sepe (2019) note 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).

compared to a study focusing on a single investor. Third, each engagement draws on contributions from multiple types of 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 examine the effect on location and 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 an ad hoc basis, whereas half are headed by a small number of leaders who initiate and proactively coordinate the activity. Finally, the dataset is granular. There is a detailed record for each engagement, including the beginning and completion date, the identity of the target firm, the identity and role of each investor, and engagement outcome, which does not rely on scores or ratings from ESG advisory businesses.[11] 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.

Our dataset covers 31 PRI-coordinated engagement projects in four broad areas as defined by PRI: Environmental, Social, Governance, and (reflecting the UN origins of PRI) work related to the UN Global Compact (UNGC) and its sustainable development goals (SDGs). However, PRI-linked engagements on Governance and the UNGC are inherently related to Environmental and Social issues, and hence the underlying engagement areas in our dataset are all related to 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" continuation addressing related matters. **Table 1** summarizes these projects, which started as early as January 2007 and only one of which was still ongoing when PRI last updated the data (May 2019). The mean (median) project duration is 795 (798) days.

[11] For a comparison and criticism of ESG ratings see Doyle (2018), who 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 spirit, Berg, Koelbel, and Rigobon (2020) quantify the sources of rating disagreement. Yang (2019) argues that ESG ratings have limited informative signals about important stakeholder outcomes; Diebecker, Rose, and Sommer (2019) find substantial qualitative differences between two market-leading sustainability datasets; Dimson, Marsh, and Staunton (2020b) report a low correlation between ESG scores and component scores (E, S, and G) from the providers; and Gibson, Krüger, Riand, and Schmidt (2020) report a low correlation between the ESG scores from six prominent rating providers.

The unit of analysis in this study is an engagement sequence or dialogue, 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 1,654 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 (COP6) with a sample mean (median) of 53 (32). 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 26 investors participating in each dialogue.

For each project, the PRI Collaboration Platform team evaluates success by comparing scorecards prepared for each target firm in the pre- and post-engagement periods. The scorecards cover areas from policy and strategy, implementation, disclosure and other material objectives. Appendix A provides examples of PRI-coordinated projects. Success is recorded when there is an increased post-engagement score relative to the pre-engagement score.[12] In the only ongoing project, Palm Oil Growers, success has been judged by PRI using interim reports in mid-2016, and these evaluations are included in the dataset. Appendix B lists the success measures used for coordinated engagements. Because of a lack of evaluation data or the nature of the engagement, success could not be evaluated for some of the target firms (see Appendix B).

The success rate, for those engagements where success has been evaluated ranges from 0% (Forest Footprint Disclosure 2012) to 100% (Corporate Climate Lobbying) (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 project completion. For Corporate Climate Lobbying, a reason for the high success rate is the substantial global investor support for a measurable target of limiting the rise in global temperatures to less than 2 degrees centigrade by 2030, called to action at the United Nations Summit in 2015 as part of the 17 Sustainable Development Goals in the 2030 Agenda for Sustainable Development (sustainabledevelopment.un.org). In total, PRI can evaluate the success of 1,077 engagements in our sample with an average success rate of 52.7% (untabulated). This number is comparable to the success rate of 45.2% documented by Dimson, Karakaş and Li (2015, Table 4) for the subsample of the E&S engagements that were undertaken in collaboration with other shareholders.

The new dataset used in this study has been assembled by us in careful and painstaking collaboration with

[12] The only exception is the project on 'Human Rights in Extractives', in which success is only recorded when the target's score increased by a minimum of 5 points after the engagement.

PRI and has not been academically analyzed previously. Our 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, Li and Zhang's (2020) observation that prior work based on US data 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 investor, and the influence of investors on engagement success. Furthermore, many investors are involved in multiple engagements in our dataset with differing roles. We can obtain insights on the dynamics of coordinated engagements by analyzing the economic incentives behind investors' decisions to participate in or lead 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 1,729 engagements to 1,654 engagements. In **Table 2** we provide summary statistics on the location of engaged companies (Panel A) and their industrial classification (Panel B).

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 US, France, and UK. 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, Pakistan, and the Netherlands. A further 14 countries have a double-digit number of engagement sequences, with an average of 15 such dialogues per country. The next 31 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. Consistent with our observations, Flammer, Hong, and Minor (2019) demonstrate that CSR contracting in executive compensation is more prevalent in emissions-intensive industries and is becoming more prevalent over time.

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 peer firms from the same country and 3-digit SIC, we relax the industry classification to 2-digit SIC. If there are more than 10 peer firms for a particular target, we keep only the 10 with the closest market capitalizations. We then calculate the difference between the target firm and the average control 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. 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-coordinated engagements target large firms in their respective country and industry, who face greater scrutiny 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 by the group is only 1.48%, this number is 0.9%, or 1.6 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 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 by outside investors. The information on institutional ownership is obtained from FactSet using target firms' ISINs. We identify a holding institution as long-term 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 suggests target firms had mixed performance before they were targeted. This also highlights the importance of comparing within the target firms (e.g., success vs. unsuccess) in our subsequent performance analysis. Fourth, targets have lower stock return volatility and lower sales growth, consistent with the target being larger and more mature. Last, target firms also have lower cash holdings, lower R&D expenses and higher capital expenditures. This is consistent with the strategy of targeting industry leaders, who might have already invested in ESG, and have less capacity for discretionary spending.

We also extend this analysis to ESG ratings from Refinitiv (formerly Thomson Reuters Asset4) and MSCI in the pre-engagement year. The Refinitiv ratings are reported on a scale of 0 to 100 with a mean of 78 for target firms in our sample; MSCI ratings run from 0 to 10 with a mean of 6 for our sample. A higher score denotes a superior rating. Target firms have a high overall rating for ESG, measured by both Refinitiv's overall ESG rating and MSCI ESG rating, compared to their peers. 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. This is also consistent with a strategy of targeting industry leaders who already have a reputation for being responsible and (on balance) would wish to avoid a downgrade.

We conduct a multivariate analysis of the choice of 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 lead investors. In these models, we control for industry and year fixed effects, and use robust standard errors to account for heteroskedasticity.[13] Due to data availability, including ESG ratings in the regressions reduces our sample size substantially. Therefore, we separately report the results with and without ESG ratings. For brevity, we only tabulate the results using Refinitiv ratings, which give us a slightly larger sample size. The results using MSCI ESG ratings are qualitatively similar and are tabulated in our Internet Appendix. The findings are largely consistent with those in the univariate analysis and across the subsamples with a few exceptions. The coefficients on long-term institutional holding and insider holding are insignificant, suggesting that holdings by long-term institutions and insiders do not play a role in the target choice after controlling for other factors.

In our targeting analysis, we also examine whether a target firm's legal environment plays a role. We classify legal origin based on the commercial law in a target firm's home country (Djankov, McLiesh, and

[13] We use robust standard errors instead of clustered standard errors, as the structure of variation in the dependent variable is unknown. We get similar results by using standard errors clustered by firm.

Shleifer (2007)). Four categories of legal system are included, namely English, French, Scandinavian, and German. The omitted category in the regressions is countries with a legal system of English origin. We find that target firms in countries with French, Scandinavian, and German legal origins are more likely to be engaged, compared to firms in countries with English legal origin. This is in line with Liang and Renneboog's (2017) finding that firms in countries with French, Scandinavian, and German legal origins have higher CSR ratings than firms in countries with an English legal origin. Focusing on the engagements with lead investor, we find that firms that operate in a legal environment that has a French origin are more likely to be engaged compared to the firms in countries whose legal origin is English.

3.2 Characteristics of engaging investors

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 identities of all the investors and their roles within the coalition. 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 (e.g., in AUM). We manually match investors in each engagement with the signatory list by name. In total, we have 224 unique engaging investors 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 fill in the missing information via internet search. The information on their headquarter location, category, and AUM has thus been collected at the time such firms 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, US, 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.

For each group, we report on a country-by-country basis the number of investors in each category and their average AUM. As Table 5 shows, the US and UK have the largest number of engaging investors in our sample. For every country, we list the three asset owners and investment managers with the largest AUM and all service providers (for whom AUM is unavailable). For example, for the US, 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 service providers 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. For example, at the time of our study Japan had never had an asset owner participate in any PRI coordinated engagement,[14] and the world's "Big Three" asset managers (Blackrock, Vanguard, and State Street) had never participated in PRI engagements.[15] Below, we discuss the investors who participated most in PRI 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, 87 are asset owners, 121 are investment managers and 16 are service providers. An average investor in our sample participated in 194 engagements or 4 unique projects. The average AUM of an asset owner or investment manager in our sample is $112 billion, with the median being $23 billion. 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 ($95 billion, not tabulated).

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 (not tabulated). 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.[16] On average, these inactive signatories have lower AUM ($45 billion, untabulated).

[14] Analyzing hedge fund activism in Japan, Buchanan, Chai, and Deakin (2012) concluded that activism was not received favorably and was generally resisted in Japanese public firms. Our conversations with PRI confirmed this finding.

[15] The lack of participation in PRI-coordinated engagements by ultra-large investment managers is apparent even on 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 (2019) point that the Big Three dominate the index fund sector in the US owning more than 20% of 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.

[16] Based on conversations with PRI, around 860 out of more than 1,700 signatories in 2017 did not have publicly listed equity in their portfolios. In 2017, PRI signatories had 38% of their AUM invested in listed equity (https://tinyurl.com/PRIReportingFramework2017).

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 1.48% or $424 million in the target firm in the quarter before the engagement starting date (Table 3). 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. Among the 1,654 engagements in our sample, 393 have lead investor(s). Focusing on the subsample of engagements with lead investor, an engagement 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 leads, with the maximum number of leads being seven. The combined AUM of lead investors is $162 billion and their combined shareholdings in the target are 0.42% or $65 million (Table 3).

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. This table also reports the date when the organization became a PRI signatory. Among them, four 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).

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 leads 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 proactivity and responsiveness to the concerns of E&S conscious investors. Among them, Boston Common Asset Management, Robeco and MN are also listed as top 10 investors in Panel B of Table 6. Hermes Investment Management, PGGM Investments and BMO Global Asset Management (through F&C Asset Management) are among PRI's founding signatories.

3.3 Determinants of decision to engage

In this section, we first analyze the determinants of a PRI signatory becoming a collaborating organization, i.e., being one of the 224 out of 1,733. Columns (1) and (2) of **Table 7**, Panel A report the signatory-level probit regression results on the likelihood of becoming involved in at least one engagement. This analysis essentially compares signatory characteristics between those involved in collaborative engagements and those being inactive. Since signatory size information is not available for service providers, we exclude them from this analysis. We find that signatories that are (i) founder members of PRI, (ii) early members of PRI, (iii) with formal process to engage by internal staff, and (iv) active at collaborative initiatives besides PRI, are more likely to be involved in collaborative engagements.

These findings suggest that being part of PRI's network and having internal resources dedicated to engagement is an important determinant for joining the coalition. Interestingly, we also find an inverse U-shaped relation between signatory size measured by AUM and the likelihood of joining the coalition (column 1).[17] This result could be due to two opposing effects of investor influence on engagements: On the one hand, large signatories may prefer to engage alone if they have enough resources and their sole influence over target firm is already substantial. On the other hand, since engagements require commitment, resources, and certain clout over the target firm, if the signatory is too small, it may not have the means to engage. However, signatory size no longer matters after we control for the presence of a formal process to engage by internal staff and the number of collaborative initiatives besides PRI (column 2). This finding confirms the view that signatory size captures both the signatory's ability to engage and its willingness to collaborate.

We also analyze the determinants of a PRI signatory becoming a lead investor conditioning on participating in the coalition, i.e., being one of the 90 out of 224. Columns (3) and (4) of Table 7, Panel A report the probit regression results for the likelihood of being a lead at least once. Again, we exclude service providers from this analysis. Similar to the decision to join, we find that signatories with formal process to engage by internal staff and signatories that are active at collaborative initiatives outside PRI are more likely to lead. This is consistent with the pattern observed in Table 6, Panel A: 96% of lead investors have formal process of engagements by internal staff, and a lead investor participates in 9.1 other collaborative initiatives, while these numbers are 80% and 7.5 respectively across all participating investors. This finding suggests that having internal resources dedicated to E&S engagements is particularly important for lead investors.

Interestingly, we find that the coefficient on pension is negative and significant in Columns (3) and (4) of

[17] In unreported analysis, we find very similar results by using the number of staff as an alternative measure for signatory size.

Table 7, Panel A, in contrast with the positive and marginally significant coefficient observed in Columns (1) and (2) of Table 7, Panel A. This result suggests that although pension plans are likely to participate in the coalition, they are less likely to be leaders, potentially due to lower need to establish the reputation in order to attract outside fund flows and less capacity to handle the responsibilities of the lead investors. Kahan and Rock (2007) argue that public pension funds, unlike hedge funds, do not have to compete intensively for investment capital, and are subject to political constraints and conflicts of interest, which in turn shape how they engage in shareholder activism. We no longer find signatory size plays a role in the decision to lead, probably because the level of resources is not a constraining factor once the minimum infrastructure for an engagement is set up, and other factors such as reputational concerns may outweigh.

Liang and Renneboog (2017) find that the legal origin of a firm's country is a strong determinant of the firm's (assessed) ESG ratings. Gibson, Krüger, Riand, and Schmidt (2020) find that the legal origin of a rating agency's country shapes the ESG ratings the agency (assessor) assigns. We therefore examine whether a signatory's legal origin plays a role in its decision to be a participant and to lead. We classify a signatory's legal origin based on the commercial law in the country in which it is headquartered (Djankov, McLiesh, and Shleifer (2007)). Four legal origin categories are included: English, French, Scandinavian, and German legal origins; the omitted category in the regressions is English. We find that compared with signatories with an English origin, those with Scandinavian origin are more likely to lead once they decide to participate in the coalition.[18] This result, together with those in Table 4, suggests that legal origins of the countries of both the target firms (assessed) and the investors (assessor) are material in decisions about E&S engagements.

We next analyze a signatory's decision to engage with a particular target firm in a project, after controlling for signatory characteristics analyzed above. The purpose of this exercise is to understand the economic incentives behind each engagement after holding signatory-level incentive and resources constant. 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 have used the platform at least once during our sample period due to their arguably fundamentally different characteristics from the remaining 1,509 inactive ones. We thus limit the pool to these 224 active signatories. Again, we exclude service providers from this analysis due to the lack of information on their shareholdings of the target. In sum, for each engagement, there are 208 potential candidates to become involved.

Column (1) of Table 7, Panel B reports the regression results on a signatory's decision to become involved in

[18] Among the 224 active investors, 58%, 21.4%, 8%, 12.5% have English, French, German and Scandinavian legal origin, respectively. Among the 90 lead investors, 53.3%, 23.3%, 8.9%, and 14.4% have English, French, German and Scandinavian legal origin, respectively.

an engagement. In order to isolate the economic incentives behind a signatory's decision to engage with a particular target in a particular project, we include signatory fixed effects to control for time-invariant signatory characteristics, such as 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)). Since the dependent variable is a decision made by individual signatories, we cluster standard errors at the signatory level to account for potential correlations in error terms within the group.

We find that an important role in incentivizing the signatory to become involved is being in the same country as the target firm, i.e., being domestic. 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, in addition to geographic distance, are likely to create incentives for engagement. This finding 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 closer to home. A domestic focus would not be surprising: Barber, Morse, and Yasuda (2020) report considerable bias in the holdings of limited partners in dual-objective venture/growth equity funds. Chowdhry, Davies, and Waters (2019) analyze the decisions of socially committed investors who invest for impact; for these market participants a degree of home bias seems natural. We also find that a signatory is more likely to engage when the target firm is larger in size. This result is consistent with Dimson, Karakaş, and Li's (2015) finding that firm size is positively related to targeting and success probabilities of E&S engagements, suggesting that economies of scale and reputational concerns faced by large-sized target companies are considered by the engaging signatories.

We also find that an important contribution to the decision to be involved is having joined PRI as a signatory before project initiation, which increases the likelihood of being part of the coalition.[19] 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 being lower once the

[19] 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 become a signatory. However, this practice is uncommon. Only in 5% of our sample did an institution join an engagement before becoming a signatory.

investor is involved and has "checked the box". The latter is likely due to the fact that staying active in an ongoing engagement requires commitment and signatories often face limited resources.[20]

We also examine whether financial incentives play a role in a signatory's decision to engage with a particular target by analyzing the signatory's stake in and exposure to the target. A larger stake in the target increases the credibility and strength of the investor's voice and the potential benefits of the engagement. An investor is more likely to expend more resources on a particular target to which it has a larger exposure (Fich, Harford, and Tran (2015)). We use the percentage shareholding in a target to quantify the signatory's stake. We measure a signatory's exposure to a target by calculating the weight of the signatory's holding value in the target relative to its overall equity portfolio value. A signatory's overall equity portfolio value is calculated as the sum of all holdings as recorded by FactSet. We do not find a significant impact on the engagement decision from a signatory's stake in or exposure to the target firm. This suggests that financial incentives do not play a leading role in a signatory's decision to participate in an engagement after controlling for other economic incentives. This is likely due to the relatively low costs associated with being part of the collaboration without playing the lead role (discussed below).

Column (2) of Table 7, Panel B 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 those for the full sample analyzed in Column (1), though with a (slightly) reduced statistical significance in the coefficients of interest, likely due to the reduced sample size and to decreased variation left in target firm size among these earlier projects, after controlling for target firm fixed effects.

Column (3) of Table 7, Panel B 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

[20] Some institutions may join coordinated engagements to appear active in front of their clients. Once they participate in a number of engagements within a certain period, they do not have the same incentive to contribute to an engagement. In 2018 PRI strengthened its signatory accountability, and implemented minimum requirements for maintaining membership and showcasing leadership activity on responsible investment (RI) for its existing and future signatories. Requirements include: (i) investment policy that covers the firm's RI approach, embracing >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 first be informed privately and then delisted following unsuccessful engagement over the two-year period (unpri.org/signatories).

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 a higher stake in the target, i.e., has more "skin in the game". Like the results on becoming involved in an engagement, a signatory is more likely to lead when the target is domestic, likely due to lower engagement costs and/or higher familiarity with or interest in the matter. Consistent with the argument that being a lead is costly and time-consuming, we find that a signatory is less likely to be a lead when it already leads other ongoing projects.

Column (4) of Table 7, Panel B reports the incentives for a signatory to become a supporting investor, conditional on knowing who leads the engagement. Similar to results in Columns (1) and (2) of Table 7, Panel B, we find that a signatory is less likely to join a coalition as a supporting investor if it already has past engagement experience or is busy with other projects. We also find that characteristics of the lead investor also play a role in attracting supporting investors to join the coalition: Having a domestic lead increases, while having a pension plan as lead decreases, the likelihood of being a supporting investor. This finding suggests that supporting investors prefer their leads to be local and fit for purpose. Interestingly, target firm being domestic is no longer a determinant for the supporting investors. This suggests that supporting investors do not necessarily prefer local targets, probably because they rely on lead investors for local expertise.

3.4 Determinants of engagement outcome

We now seek to identify the determinants of success in engagements. We first examine whether success can be explained by target firm characteristics as examined in Table 4. 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.

Next, we examine whether the influence that can be mobilized by the investor 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' positions in the target company, a proxy to capture both existing voting power in the target (after controlling for target market capitalization) and the economic significance of the target, and their aggregate assets under management (AUM), a proxy for potential investment or potential voting power. The non-monetary influence is the percentage of investors in the group with formal process of engagements by internal staff. This proxy captures human resources that

investors could utilize to influence targets. These three measures capture distinct, albeit correlated, aspects of investor group influence. We thus include one measure at a time in the regressions.[21]

We also examine whether the composition of the investors involved in engagements, including the percentage of pension plans and the percentage of PRI founding signatories, affects the success of an engagement. We expect both pension plans and PRI founding signatories to have a positive impact on the engagement outcome given their influence over local economy and engagement experience.

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. We exclude engagements in which information on success is not available (577 observations). Observations without data on target characteristics are also excluded. We include target industry fixed effects to control for industry-specific factors. We conduct the analysis separately for all engagements (Columns 1 to 3 of **Table 8**, Panel A), and for engagements with lead investor(s) (Columns 4 to 6 of Table 8, Panel A). For the latter subsample, we additionally include year fixed effects, which cannot be included in the former sample, as our main variable of interest, the indicator for an engagement to have lead investor(s) is highly correlated with year indicators: All projects with lead investor(s) started in or after year 2010 and all projects initiated after mid-2012 and with data on success have lead investor(s). For brevity, coefficients on some firm level (control) variables are omitted in Table 8 and tabulated in the Internet Appendix. We use robust standard errors to account for heteroskedasticity.

In the first three columns of Table 8, Panel A, we find that success is more probable when there is (i) more dividend payout, (ii) less sales growth, and (iii) larger long-term institutional holding in the target company, which enhances receptivity to long-term value-enhancing changes. We also find that, compared to firms in countries with English legal origin, firms that are in countries with French legal origin are more likely to achieve the objectives set by the signatories in the E&S engagements (see Liang and Renneboog (2017)). The most striking result is that the presence of lead investor(s) is associated with a substantial increase in the probability of success, i.e., 26–39% increase depending on the model specification. This finding suggests a tiered structure with a clear division of roles played by various participants is most effective in coordinated engagements. The enhanced success rates with lead investors may 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,

[21] We also use employee ratings as an alternative non-monetary measure for investor influence and find qualitatively similar results. The results using this measure of integrity/culture are presented in the Internet Appendix.

and Yasuda (2020)), there may be learning opportunities that drive innovations in engagements.

Consistent with the influence of investor group playing a role in determining engagement outcome, we find that success is more probable when the investor group has greater shareholding value in targets, larger AUM, and higher percentage of investors with formal process of engagements by internal staff. These findings are in line with Dimson, Karakaş, and Li (2015) who illustrate 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 of Table 8, Panel A, we limit the sample to engagements with lead investor(s) to separately examine the effect of lead investor influence and supporting investor influence on engagement outcome. Consistent with findings for the whole sample, we find that holdings in the target and the AUM of both the lead and supporting investors influence the success of engagements.[22] Having a higher proportion of supporting investors with a formal engagement process increases success rate, but this does not matter for lead investors probably due to a lack of variation: More than 75% of engagements in our sample have all lead investors with a formal engagement process. We are also able to analyze the location and type of lead investors. We find that having a domestic lead increases the success rate by 16–25%. Proximity of the lead investor to the target firm provides local expertise and knowledge, and thus improves the effectiveness of engagements. Again, this finding provides a rationale for the results reported in Table 7 that home bias drives signatories' decision to lead and supporting investors prefer domestic leads. The legal origin of the target's home country seems to play a limited role within the subsample of engagements with lead investor.

In columns 4 to 6 of Panel A, we find that having a pension plan as lead(s) decreases the success rate by 18–25%, and having a PRI founding signatory as lead decreases the success rate by 10–20%. The former result resonates with the findings in Table 7 that pension plans have a disincentive to become lead, and supporting investors dislike their leads being pension plans. This is probably because pension plans face less reputational pressure to stay active and attract fund flows, and are subject to political constraints and conflicts of interest, as discussed in Kahan and Rock (2007). Pension plans are better equipped to support engagements. Indeed, in all columns of Panel A, we find that success is more likely when the investor group has a larger percentage of pension plans. The economic significance is considerable: Increasing the percentage of pension plans from zero (minimum value) to 100% (maximum value) is associated with an increase in the success rate of 47–57% for all engagements and of 70–75% for engagements with lead(s).

[22] To include an engagement in the regression, we require at least one lead (supporting) investor to have non-missing data on shareholding, AUM, or formal engagement process to calculate lead (supporting) investor influence.

But why might having a PRI founding signatory as lead be associated with a relative decrease in the likelihood of success? There are particular pressures on founding signatories who take on a leadership role. On the one hand, they can bring broader information, accumulated skills, and greater influence to the dialogue. On the other hand, the cohort of founders runs the risk of being more formulaic, less innovative, and more likely to work on multiple engagements than non-founding signatories (64% vs. 49%, untabulated). The finding that greater experience with PRI does not necessarily make the leadership more effective supports calls for seeking additional leaders who may extend the power and influence of the group.

In Panel B of Table 8, we include target firms' ESG rating, sourced from Refinitiv and measured by the Asset4 overall rating, as an additional determinant for success. We analyze the ESG ratings separately, since their inclusion decreases the sample size significantly. We find that having a high ESG rating increases success rate for the overall sample, but not for the subsample with lead investors. The former finding is consistent with PRI's targeting strategy observed in Tables 3 and 4. The latter finding suggests that once a structured engagement strategy is established, target firm characteristics play a limited role in the determinant of success.[23] The results on engagement structure variables and investor influence variables remain similar to those reported in Panel A. In Internet Appendix Table 2, we tabulate results using MSCI ESG rating as an alternative to the Refinitiv rating and find very similar results. Interestingly, in contrast to the results in the first three columns of Table 8, Panel A, the legal origins of the firms' countries do not seem to play a differential role in the first three columns of Table 8, Panel B. A possible reason is that a firm's ESG rating is correlated with its legal origin (Liang and Renneboog (2017)).

To sum up, findings in this section suggest that the most effective structure of a coordinated E&S engagement involves appointing local non-pension investors with high influence as leads and including influential supporting investors and pension plans in the coalition. Such a structure has a clear division of roles and at the same time broadens the resources and influence that can be utilized by the engaging group.

3.5 Long-term stock market performance of target companies

How do target-firm shareholders view coordinated E&S engagements? To address this question, we analyze the long-term stock market performance of 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, we contrast annual abnormal stock returns three years after the engagement initiation with those two years before the engagement, as the median engagement in our sample takes two years to conclude (Table 1).

[23] Consistent with this argument, we find that coefficients on many other firm-level variables, such as dividend payout, sales growth, long-term institutional holding, insider holding, and French legal origin also lose their significance.

The dependent variables in Table 9 are (i) 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 (ii) 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. $Year_{+1\&+2}$ includes month 0 to month 23. $Year_{+3}$ includes month 24 to month 35. Month 0 is the calendar month when the engagement started. $Post\text{-}engagement_{Year+1\&+2}$ is defined as one for event window $Year_{+1\&+2}$. $Post\text{-}engagement_{Year+3}$ is defined as one for event window $Year_{+3}$. Target firm characteristics are obtained from the corresponding fiscal year end. All regressions incorporate target firm fixed effects and calendar year fixed effects. We cluster standard errors at the target firm level to account for heteroskedasticity and correlation of error terms within each firm. 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 4.1–4.6% increase in annual abnormal stock returns at target firms within the first two years after the engagement initiation, relative to the pre-engagement level for the subsample of engagements with lead investors. This increase in annual abnormal stock returns widens to 8.8–9.2% in the third year. This finding further supports the conjecture that leadership in engagement coalitions is associated with a positive shareholder outcome. In contrast, we observe no change in target firms' stock performance among engagements without a lead (Table 9, Panel A). The coefficients on post-engagement indicators are statistically different across subsamples with and without lead. These contrasting results suggest the observed improvements in stock performance are unlikely driven by PRI's superior stock picking, as not all target firms experience improvements in stock performance after engagement.

Similarly, analyzing stock performance conditioning on engagement outcome, we find about 2.9–3.2% increase in annual abnormal returns within the first two years, and 5.8–6.7% in the third year after the engagement initiation, relative to the pre-engagement level for the subsample of successful engagements. In contrast, there is no change in target firms' stock performance among unsuccessful engagements, although the difference across these two subsamples is only statistically significant in the first two years (Table 9, Panel B). Focusing on the successful engagements with lead investors, we find about 5.0–6.1% increase in annual abnormal returns within the first two years, and 10.2–12.6% in the third year after the engagement initiation, relative to the pre-engagement level (Table 9, Panel C). In contrast, there is no change in stock performance among target firms with unsuccessful engagements and without a lead. Collectively, these findings indicate that coordinated engagements are worthwhile 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 three years of the engagement initiation. Our results chime with the findings in Dimson, Karakaş, and Li (2015) who report 7–8% abnormal returns to successful ESG engagements in their sample. Our results also suggest that the market, on average, can distinguish and reward the successful engagements. This finding yields support to the objectivity of the success measures that PRI uses in evaluating 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. In **Table 10**, we analyze ROA, sales growth, and stock return volatility. In Table 11, we analyze total investor holdings, lead investor holdings and supporting investor holdings of target firm in percentages. We include firm fixed effects and year fixed effects in all regressions. We also include firm size (market capitalization) and market-to-book ratio to control for firm characteristics and include within country industry medians of the dependent variable to control for potential industry trends. We cluster standard errors at the target firm level. To assess the change in target firm performance, we limit the sample to two years before and three years after the engagement initiation date. Similar to before, the two post-engagement indicator variables, i.e., $Post\text{-}engagement_{Year+1\&+2}$ and $Post\text{-}engagement_{Year+3}$ are defined as one for event window $Year_{+1\&+2}$ and $Year_{+3}$, respectively. Panel A of Table 10 compares 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 ones without lead. Bold numbers indicate the coefficients are statistically different across the subsamples.

We find an increase in ROA in post-engagement period for the engagements with lead investors (Panel A). The increase in ROA is modest 0.9% in the first two years, and 2.4% in the third year after the engagement initiation. We also observe a similar trend in ROA following the successful engagements (Panel B): a modest 0.7% increase in the first two years and 1.5% increase in the third year. Successful engagements with lead enjoy an increase of 1.3% in ROA in the first two years and an increase of 3.2% in the third year. Such a trend is consistent with the engagement horizon: On average it takes two years for a project to complete. These findings are in line with those in Dimson, Karakaş, and Li (2015) who find a 1.4% increase in ROA following successful E&S engagements. We do not observe any improvement in ROA in the subsample of engagements without a lead or in the unsuccessful engagement subsample. The coefficients on post-engagement indicators are statistically different across subsamples in each panel. These contrasting results suggest the observed improvements in ROA are unlikely driven by PRI choosing well-performing firms to

engage, as not all target firms experience improvements in accounting performance after engagement.

We also find significant increases in sales growth three years after engagements for the subsample of engagements with lead investor and successful engagement subsample and these increases are higher than those in the subsample of engagements without lead and unsuccessful engagement subsample (Panels A and B). There is no change in sales growth among target firms in the subsample of engagements without lead and being unsuccessful (Panel C). This suggests that successful engagements lead to improvements in firm sales.

In Table 10, Panel C, we also find that successful engagements with lead investors decrease the stock return volatility whereas the engagements without lead or unsuccessful do not experience any change in 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, Oikonomou, Sautner, Starks, and Zhou (2020) that ESG engagements reduce firms' downside risk. Relatedly, the CFA Institute (2017) finds that 73% of their survey respondents take ESG issues into consideration in their investment analysis and decisions, and that 65% take ESG issues into consideration to help manage investment risks.

Additionally, in **Table 11**, we analyze the holdings in target firms by all the investors in engagements without lead, and holdings by lead investors and the supporting investors in engagements with lead. We find no change in shareholdings by investors in engagements without lead and no change in shareholdings by lead investors in engagements with lead in spite of the engagement outcome. These findings suggest that (lead) investors engaging with target firms on E&S issues are committed for the long-term and do not exit from their investments after favorable returns from their successful engagements, in contrast to the hedge fund activists. We find a slight decrease in shareholdings by supporting investors in the first two years after engagements when the engagements are successful, but no change in shareholdings when engagements are unsuccessful, although the differences are not statistically significant across two subsamples. This finding may be caused by some supporting investors exiting target firms after projects complete.

4. Discussion and Conclusion

Two findings in our paper are subject to potential endogeneity concerns. First, the positive association between a two-tier engagement structure and a successful outcome might be a result of reverse causality. That is, investors select a two-tier approach when they perceive engagement success or performance improvements to be more probable. We argue this is unlikely, because the two-tier engagement structure has been exogenously imposed by PRI on 15 out of the 31 engagement projects, and the presence of an engagement structure with lead(s) is neither a choice by the target firm nor by investors. There is also no

indication that PRI imposed the two-tier engagement structure on easy-to-succeed projects. To the contrary, depletion of "low-hanging fruits" may bias against achieving success. In fact, based on our discussions with PRI staff, the two-tier engagement system reflects a structural change in PRI's engagement strategy over time. A higher success rate with two-tier engagement is consistent with PRI moving up a learning curve and with improved efficacy from this structure. Second, the improvements in targets' performance could be attributed to superior stock-picking skill by PRI or by engaging investors – a tendency to target firms that are expected to outperform in the future. We argue this is also unlikely, because not all engagements end with success and outperformance is only present in targets where success was achieved and/or a lead was present.

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 substantially 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 stake in the target company, and have a formal process for internal staff to engage with target businesses. These findings suggest that, for maximum effect, coordinated engagements on E&S issues would preferably have a lead investor who is well suited geographically, 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 resources.

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: Illustrative Engagement Projects

This appendix summarizes four selected coordinated engagement projects from our sample. See Piani (2013) for more detail and further examples of engagement projects

Project	Brief description
Carbon Disclosure Leader-ship Index: CDLI 2011	In 2011, a group of 13 PRI signatories representing $1.8 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. Success is evaluated based on whether targeted firms have moved out of the lowest quartile of respondents in CDP questionnaire on the climate disclosure score, i.e., the Leadership Index.
Anti-corruption (Phase 1)	During 2010 and 2013, 27 PRI signatories with assets of $2.3 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 are considered successful.
Conflict minerals	During 2010 and 2013, 16 PRI signatories with assets of $760 billion engaged with 15 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 are considered successful.
Fifth annual engage-ment with UNGC companies	In 2012, 35 PRI signatories representing $3 trillion engaged with 115 UNGC member companies regarding their Communication on Progress. They welcomed advanced reporting by 91 companies and encouraged 24 non-communicating companies to respond and thereby reactivate their UNGC status. Phone and email follow-up with the 24 non-communicating companies was undertaken by investors and the PRI Secretariat and by the UNGC's local networks. By end-2012, 18 of the 24 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. Six non-communicating companies remained inactive. Success is recorded when the non-communicating company became active. Success cannot be evaluated for the 91 companies with advanced reporting at the beginning.

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. For COP projects, some engagements were in the form of congratulatory letters sent to target companies, for which success cannot be evaluated. For palm oil buyers, success was not evaluated by PRI.

Project name	Success measure
Anti-corruption (Phase 1)	Scorecards
Anti-corruption (Phase 2)	Scorecards
CDLI 2011	Whether target's leadership index improved
CDLI 2012	Whether target's leadership index improved
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 year after engagement
CDP Water Disclosure 2011	Whether the target disclosed to CDP Water in year after engagement
CDP Water Disclosure 2012	Whether the target disclosed to CDP Water in year after engagement
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	Scorecards
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
Indigenous rights	Scorecards
Labor standards in agricultural supply chain: phase 1	Scorecards
Palm oil buyers	N/A
Palm oil growers	Scorecards (based on interim evaluation)
Conflict minerals	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	Scorecards

Appendix C: Variable Definitions

Variable Name	Definition
Target fundamental data (*Source: WorldScope and Compustat, downloaded in March 2018*)	
Market cap	Market capitalization in $b or $t. Converted 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 (ROA)	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, downloaded in March 2018*)	
Long-term institutional holding	% of shareholdings by institutions with Churn ratio below sample median
Total involved investors holding	% of shareholdings by all involved investors
Total involved investors holding $m	% of shareholdings by all involved investors multiplied by target's market cap.
Total lead investors holding	% of shareholdings by all lead investors
Total lead investors holding $m	% of shareholdings by all lead investors multiplied by target's market cap.
Total supporting investors holding	% of shareholdings by all supporting investors
Total supporting investors holding $m	% of shareholdings by all supporting investors multiplied by target's market cap.
Signatory exposure to target	The value of a signatory's shareholdings in target divided by the signatory's total portfolio value at the end of calendar quarter immediately before engagement start-date.
Signatory holding in target	% of shareholdings of target by a signatory at the end of calendar quarter immediately before engagement start-date.
ESG rating data (*Sources: Refinitiv and MSCI*)	
Refinitiv rating	Overall equal-weighted rating based on the four Asset44 pillars: environmental, social, governance, and economic
MSCI ESG rating	MSCI Intangible Value Assessment (IVA) weighted average key issue score. The score is based on all the key issues contributing to the final rating of the company.
Legal origin data (*Source: Djankov, McLiesh, and Shleifer* (*2007*))	
Legal origin	Legal origin is one of four categories: English, French, Scandinavian, or German, based on the commercial law legal origin of a target firm's home country or a signatory's headquarter country. We reclassify Russia as having German rather than socialist origin.
Signatory/Investor data (*Source: PRI*)	
AUM (assets under management)	Signatories' self-reported AUM as of 2017. AUMs are unavailable for service providers and for 16 signatories due to delisting from PRI signatory list. We manually fill in their AUM at the year before delisting by using internet search.
PRI's Founding Signatory	Indicator of whether the signatory is identified on PRI website as founding signatory.
Formal Process of Engagements by Internal Staff	Indicator of whether the signatory self-reports a formal process for identifying and organizing engagement activities by internal staff. We take the maximum value in PRI's annual reporting surveys during 2014–2018. Data is missing for a few signatories.
Number of Collaborative Initiatives Participated Besides PRI	Non-PRI participations include UN Global Compact, CDP Climate Change, CDP Forest, CFP Water, Asian Corporate Governance Association, Association for Sustainable & Responsible Investment in Asia, Global Real Estate Sustainability Benchmark (GRESB), Institutional Investors Group on Climate Change (IIGCC), International Corporate Governance Network (ICGN), etc. We take the maximum number in PRI's annual reporting surveys for 2014–2018. Data is missing for a few signatories.
Signatory is Pension Fund	Indicator of whether the signatory is a pension plan.

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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. All projects have concluded at the time of this draft, except Palm Oil Growers, which is still ongoing.

Project name	Project duration	Number of Engagements	Number of Countries	Avg. Number 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	91	19	13	No
Carbon Disclosure Leadership Index: CDLI 2012	01 Mar 12 - 31 Jan 13	69	20	21	No
CDP Carbon Action	16 Nov 12 - 19 Dec 14	25	12	2	Yes
CDP Engagement on Emissions Reduction Plans	01 Sep 09 - 31 Dec 11	81	19	34	No
CDP Water Disclosure 2011	01 Feb 11 - 30 Sep 11	123	30	33	No
CDP Water Disclosure 2012	01 Mar 12 - 31 Oct 12	40	21	30	No
CEO Water Mandate	01 Aug 08 - 30 Sep 10	94	25	15	No
COP1 - First Annual UNGC Engagement	01 Jan 07 - 31 Dec 08	78	28	20	No
COP2 - Second Annual UNGC Engagement	01 Dec 08 - 31 Dec 09	102	35	35	No
COP3 - Third Annual UNGC Engagement	01 Jan 10 - 31 Dec 10	109	37	36	No
COP4 - Fourth Annual UNGC Engagement	01 Jan 11 - 31 Dec 11	103	39	39	No
COP5 - Fifth Annual UNGC Engagement	01 Feb 12 - 28 Feb 13	115	41	35	No
COP6 - Sixth Annual UNGC Engagement	10 Mar 14 - 16 Apr 14	163	41	22	No
Corporate Climate Lobbying	03 Mar 15 - 31 Dec 18	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 - 01 Nov 17	32	17	51	Yes
Indigenous Rights	01 Jun 10 - 31 Dec 12	10	5	16	Yes
Labor Standards in the Agr Supply Chain: phase 1	19 Oct 12 - 31 Dec 15	32	14	39	Yes
Palm Oil Buyers	25 Jan 13 - 31 Dec 15	45	15	25	Yes
Palm Oil Growers	26 Mar 14 -	13	4	10	Yes
Conflict Minerals	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	01 Jan 15 - 30 Sep 17	30	13	23	Yes
Sample Mean	795 days	53	18	26	
Sample Median	798 days	32	14	25	

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 960 unique target firms from 63 countries, involved in 1,654 engagement sequences.

Panel A: Country of targets

Target country	Number of engagements	Number of targets	Target country	Number of engagements	Number of targets
United States	286	161	Portugal	9	4
France	122	61	Taiwan	8	7
United Kingdom	110	67	Israel	7	5
Japan	95	62	Bermuda	7	4
Germany	83	44	Luxembourg	6	2
Canada	79	50	Turkey	5	5
India	78	57	Thailand	5	5
Spain	58	28	Colombia	5	4
Brazil	55	30	Croatia	5	4
Italy	54	27	Egypt	5	4
Australia	45	29	Sri Lanka	5	4
South Korea	44	24	Ireland	5	3
Sweden	41	23	Nigeria	4	4
Switzerland	41	21	Greece	4	3
China	34	20	Peru	4	3
South Africa	34	19	Bulgaria	4	2
Pakistan	32	17	Poland	4	2
Netherlands	32	13	Tunisia	3	3
Finland	29	13	New Zealand	3	3
Norway	23	13	Czech Republic	2	2
Singapore	23	9	Macedonia	2	2
Denmark	20	10	Bosnia-Herzegovina	2	1
Mexico	15	11	Czech Republic	2	1
Hong Kong	15	9	Hungary	2	1
Russia	15	9	Bangladesh	1	1
Chile	13	9	Cyprus	1	1
Indonesia	12	8	Kenya	1	1
Belgium	11	7	Latvia	1	1
Malaysia	10	7	Oman	1	1
Argentina	10	6	UAE	1	1
Lithuania	10	6	Zambia	1	1
Austria	10	5	Total	1,654	960

Panel B: Industry of targets

Target industry (One-digit SIC)	Number of engagements	Number of targets	Number of countries
Manufacturing	799	758	52
Infrastructure and 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
Total	1,654	960	63

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 capitalizations 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. ($b)	39.62	11.45	94.81	1,654	35.36	15.37	1,569
Market-to-Book	2.58	1.83	2.74	1,636	0.05	0.70	1,548
Stock Return	0.16	0.10	0.47	1,637	–0.07	–6.10	1,549
Stock Return Volatility	0.09	0.08	0.05	1,622	–0.04	–21.88	1,534
Return on Assets	0.13	0.12	0.09	1,651	0.07	16.98	1,566
Leverage	0.25	0.24	0.15	1,654	0.01	3.83	1,569
Dividend Payout	0.39	0.34	0.66	1,654	0.09	5.23	1,569
Sales Growth	0.09	0.06	0.21	1,643	–0.14	–12.06	1,555
Cash/Assets	0.06	0.04	0.07	1,644	–0.03	–13.27	1,557
Capex/Assets	0.06	0.05	0.05	1,654	0.00	2.69	1,569
R&D/Assets	0.01	0.00	0.02	1,654	0.00	–5.18	1,569
Long-term Institutional Holding (%)	33.51	37.43	25.34	1,654	15.8	29.53	1,569
Total Involved Investors Holding (%)	1.48	0.54	2.17	1,654	0.90	17.50	1,569
Total Involved Investors Holding ($m)	424.32	59.62	947.26	1,654	413.66	17.20	1,569
Total Lead Investor(s) Holding (%)	0.42	0.01	1.12	393	0.37	6.51	375
Total Lead Investor(s) Holding ($m)	65.01	1.82	148.89	393	66.13	8.45	375
Insider Holding (%)	27.91	18.26	28.67	1,654	–7.72	–10.88	1,569
Foreign Sales (%)	40.67	40.62	33.43	1,654	18.53	25.43	1,569
Refinitiv Rating	77.74	87.09	22.37	1,246	22.67	24.22	831
MSCI ESG Rating	5.72	5.59	1.84	1,077	0.48	7.18	664

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 from a probit model. 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 industry (2-digit SIC) and year fixed effects. Robust standard errors are used to calculate *z*-statistics reported in parentheses. 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. (log, $m)	0.050***	0.151***	0.034***	0.150***
	(24.67)	(17.56)	(10.16)	(10.64)
Market-to-Book	–0.001	0.001	–0.001	–0.001
	(–0.91)	(0.23)	(–1.04)	(–0.21)
Stock Return	–0.029***	–0.056***	–0.021***	–0.092**
	(–5.12)	(–2.68)	(–2.63)	(–2.30)
Stock Return Volatility	0.057	0.191	0.037	–0.664*
	(1.24)	(0.86)	(0.57)	(–1.78)
Return on Assets	0.062*	0.002	0.038	–0.112
	(1.95)	(0.02)	(1.17)	(–0.59)
Leverage	0.005	0.021	–0.008	–0.242**
	(0.28)	(0.33)	(–0.43)	(–2.23)
Dividend Payout	0.003	0.029*	0.004	0.061**
	(0.81)	(1.89)	(1.47)	(2.31)
Sales Growth	–0.033***	–0.127***	–0.029***	–0.091**
	(–3.18)	(–3.33)	(–3.09)	(–1.86)
Cash/Assets	–0.113**	–0.113	–0.093**	–0.387*
	(–3.31)	(–0.99)	(–2.34)	(–1.83)
Capex/Assets	–0.003	0.058	0.094**	0.818***
	(–0.06)	(0.33)	(2.04)	(3.08)
R&D/Assets	–0.839***	–2.866***	–0.291	–2.508***

	Prob(D_Target=1)			
	Engagements with all investors		Engagements with lead investor	
	(1)	(2)	(3)	(4)
	(–6.83)	(–7.93)	(–1.46)	(–3.39)
Long-Term Institutional Holding	–0.001	–0.047	0.020	–0.024
	(–0.09)	(–1.07)	(1.43)	(–0.32)
Insider Holding	–0.001	0.011	–0.018	0.022
	(–0.08)	(0.30)	(–1.53)	(0.23)
Foreign Sales	0.057***	0.109***	0.046***	0.094**
	(7.10)	(4.02)	(5.04)	(2.19)
French Legal Origin (target)	0.042***	0.180***	0.043***	0.182***
	(4.87)	(5.54)	(3.03)	(2.70)
Scandinavian Legal Origin (target)	0.084***	0.347***	0.008	0.080
	(5.43)	(6.47)	(0.44)	(0.82)
German Legal Origin (target)	0.011	0.148***	0.011	0.084
	(1.43)	(5.60)	(0.89)	(1.37)
Total Involved Investors Holding	0.666***	0.973***		
	(5.89)	(2.94)		
Total Lead Investors Holding			2.801***	8.975***
			(6.38)	(4.89)
Total Supporting Investors Holding			–0.016	–0.697
			(–0.10)	(–0.84)
Refinitiv Rating		0.003***		0.004***
		(9.48)		(5.99)
Observations	10,859	3,979	2,697	1,221
Pseudo R-squared	0.289	0.325	0.437	0.425
Industry 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) for asset owners and investment managers, and all service providers. Number denotes the number of investors, Num leads denotes number of lead investors. In the names, AM denotes Asset Management, CM Capital Management, GI Global Investors, IM Investment Management, IMs Investment Managers, PF Pension Fund, and SF Superannuation Fund.

The following abbreviated names are used below: 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 PF 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, and USS Universities Superannuation Scheme.

A: All Investors			B: Asset Owners			C: Investment Managers			D: Service Providers	
Investor location	**Num-ber**	**Num leads**	**Num-ber**	**Avg. AUM**	**Top 3 owners by AUM**	**Num-ber**	**Avg. AUM**	**Top 3 managers by AUM**	**Num-ber**	**Service providers**
UK	42	17	14	49	Old Mutual, USS, Railways Pension Trustee	24	183	LGIM, Insight Investment, Schroders	4	LAPFF, EOS, PIRC, Inflection Point CM
USA	40	15	14	64	CalPERS, CalSTRS, New York State Local Retirement System	21	119	T. Rowe Price, TIAA - CREF, AllianceBernstein	5	As You Sow, ICCF, ISS, Bloomberg, FAFN
Netherlands	21	10	5	69	Stichting Pensioenfonds Zorg en Welzijn, PME, Achmea	15	125	APG AM, AEGON AM, PGGM Investments	1	Sustainalytics
Canada	20	11	7	72	CDPQ, CPPIB, British Columbia Municipal Pension Plan	11	57	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	27	Colonial First State Global AM, Alphinity IM, Solaris IM	1	Australian Council of Superannuation Investors
France	14	8	4	439	AXA Group, FRR, ERAFP	10	313	Amundi, AXA IMs, BNP Paribas Investment Partners	0	
Germany	8	3	3	1	VERKA VK Kirchliche Vorsorge VVaG, Steyler Bank	4	595	Deutsche AM, Allianz GI, Union Investment	1	VIP eV
Norway	6	2	6	191	NGPFG, KLP, Storebrand AM	0			0	
South Africa	6	1	1	119	Government Employees PF of South Africa	5	24	Investec AM, Momentum Outcome Based Solutions, 27Four IMs	0	
Switzerland	5	2	1		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

A: All Investors			B: Asset Owners			C: Investment Managers			D: Service Providers	
Investor location	**Num -ber**	**Num leads**	**Num -ber**	**Avg. AUM**	**Top 3 owners by AUM**	**Num -ber**	**Avg. AUM**	**Top 3 managers by AUM**	**Num -ber**	**Service providers**
Finland	4	0	3	31	Keva, Ilmarinen Mutual Pension Insurance Co., Church PF	1	10	LocalTapiola AM	0	
New Zealand	4	0	4	13	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 EGFP, SA	0	
Austria	3	2	0			3	28	Erste AM GmbH, Raiffeisen CM, C-QUADRAT AM	0	
Ireland	2	0	1	9	Ireland Strategic Investment Fund	1	10	KBI GI	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	Sustainable Capital	0	
Singapore	1	1	0			1	4	Arisaig Partners (Asia) Pte	0	
Total	224	90	87			121			16	

Table 6: Characteristics of investors

This table presents selected characteristics of the investors involved in the collaborative engagements with target firms. For the 224 investors and 90 lead investors involved in collaborative engagements, Panel A summarizes the number of engagements and projects participated or led with PRI, as well as AUM, whether a founding signatory, and having a formal process for engagements by internal staff. AUM is not available for service providers. Panel B lists the top 10 investors by the number of engagements in which they participated. 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. IM denotes Investment Manager, AO denotes Asset Owner, and SP denotes Service Provider. PRI's founding signatories are highlighted in bold.

Panel A: Investors size, engagements, and holding

	N	Mean	StDev	Q1	Median	Q3
224 investors comprising 87 Asset Owners (*incl. 64 Pension Plans*)*, 121 Investment Managers, 16 Service Providers*						
Number of Engagements Participated	224	194	239	32	87	257
Number of Projects Participated	224	3.79	3.81	1	2	5
AUM ($b)	208	112	235	3	23	97
PRI's Founding Signatory	224	0.17	0.38	0	0	0
Formal Process of Engagements by Internal Staff	200	0.80	0.40	1	1	1
Number of Collaborative Initiatives Participated besides PRI	200	7.54	4.34	4.5	7	10
90 lead investors comprising 24 Asset Owners (*incl. 19 Pension Plans*)*, 61 Investment Managers, 5 Service Providers*						
Number of Engagements Participated	90	283	281	55	149	502
Number of Projects Participated	90	6.04	4.54	3	4	9
Number of Engagements Led	90	6.17	5.52	2	4	9
Number of Projects Led	90	2.42	1.84	1	2	3
AUM ($b)	85	136	244	8	36	146
PRI's Founding Signatory	90	0.24	0.43	0	0	0
Formal Process of Engagements by Internal Staff	84	0.96	0.19	1	1	1
Number of Collaborative Initiatives Participated besides PRI	84	9.11	4.21	6	9	12

Panel B: Top 10 investors by engagements

Investor name	Headquarter country	Category	AUM ($b)	Number of engagements participated	Number of engagements led	Number of projects participated	Signature date
Aviva Investors	**UK**	**IM**	**438.2**	**1,001**	**2**	**16**	**27 Apr 06**
Boston Common Asset Mgt.	USA	IM	2.2	975	21	21	17 Dec 08
Robeco	Netherlands	IM	146.2	908	13	14	4 Dec 06
Amundi	France	IM	1,158.7	898	3	11	27 Apr 06
NI LGO	UK	AO	7.4	864	0	10	18 Sep 07
Candriam Investors Group	**Luxembourg**	**IM**	**109.1**	**857**	**0**	**11**	**26 Jun 06**
CPPIB	**Canada**	**AO**	**210.1**	**832**	**2**	**9**	**27 Apr 06**
MN	Netherlands	IM	131.9	806	15	16	2 Mar 09
The Cooperative Asset Mgt.	UK	IM	2.6	803	8	13	13 Dec 07
NZ Superannuation Fund	**New Zealand**	**AO**	**23.2**	**799**	**0**	**14**	**27 Apr 06**

Panel C: Top 10 lead investors by engagements

Investor Name	Headquarter country	Category	AUM ($b)	Number of engagements participated	Number of engagements led	Number of projects led	Signature date
APG Asset Mgt.	Netherlands	IM	523.1	315	26	4	25 Sep 09
Hermes Investment Mgt.	**UK**	**IM**	**34.3**	**305**	**25**	**8**	**27 Apr 06**
Hermes Equity Ownership Services	UK	SP		211	25	8	4 Jul 13
Boston Common Asset Mgt.	USA	IM	2.2	975	21	9	17 Dec 08
MN	Netherlands	IM	131.9	806	15	6	3 Feb 09
ACTIAM	Netherlands	IM	58.6	716	15	7	7 May 06
PGGM Investments	**Netherlands**	**IM**	**220.3**	**607**	**14**	**5**	**1 Jan 08**
Robeco	Netherlands	IM	146.2	908	13	6	12 Apr 06
BMO Global Asset Management	**Canada**	**IM**	**237.0**	**525**	**13**	**7**	**27 Apr 06**
Boston Trust & Investment Mgt.	USA	IM	7.9	391	13	4	7 Jul 07

Table 7: Determinants of decision to engage

This table presents the analyses of the signatories' decision to engage or lead. Panel A reports probit regressions results on the signatory-level determinants of a signatory becoming involved in at least one engagement or a lead in at least one engagement. The sample includes all signatories that are either asset owners or investment managers with available information on regression variables. The table reports marginal effects. AUM^2 is the square of AUM. Years of being a Signatory is defined as 2017 minus the calendar year when the investor signed up as PRI signatory. It is missing for four signatories. Panel B reports OLS regression results on the determinants of a signatory becoming a lead or supporting investor in an engagement, incorporating target firm fixed effects, signatory fixed effects, project fixed effects and calendar year of engagement start date fixed effects. We classify investors based on the geographic location of their headquarters and target firms based on the country of incorporation. Target is Domestic suggests the target is located in the same country as the signatory. 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 208 signatories (excluding service providers) 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 investor(s). 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. In Column (4), all 208 signatories other than the lead(s) in the engagement are considered as candidate for the supporting role. In this column, we also include characteristics of the lead investor(s) as additional independent variables, including total holdings in target by all leads, indicators of whether there is at least one domestic lead, one founding signatory as lead, one pension plan as lead on the engagement, and the percentage of leads with formal process of engagements by internal staff. 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. Joined PRI before Project Start indicates that the signatory joined PRI before the starting date of the engagement. It is set as one for signatories without the signatory date (due to delisting from PRI later). Standard errors are clustered at the signatory level, and are used to calculate *z*-statistics (*t*-statistics) reported in parentheses in Panel A (Panel B). In both panels, all variables are defined in Appendix C. All continuous variables are winsorized at 1st and 99th percentile levels. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Panel A: Signatory-Level Determinants

	Becoming involved		**Becoming a lead investor**	
	(1)	(2)	(3)	(4)
PRI's Founding Signatory	0.154***	0.091**	0.176	0.135
	(3.07)	(2.05)	(1.61)	(1.19)
Signatory is Pension	0.036*	0.029	–0.232***	–0.181**
	(1.84)	(1.58)	(–2.83)	(–2.06)
French Legal Origin (signatory)	–0.018	–0.013	0.081	0.131
	(–1.11)	(–0.81)	(0.89)	(1.33)
Scandinavian Legal Origin (signatory)	0.035	0.029	0.195*	0.190*
	(1.37)	(1.20)	(1.76)	(1.71)
German Legal Origin (signatory)	–0.035*	–0.016	0.132	0.225
	(–1.70)	(–0.79)	(0.92)	(1.44)
Years of being a Signatory	0.030***	0.016***	0.020	–0.000
	(11.28)	(6.39)	(1.18)	(–0.01)
AUM ($tr)	0.466***	–0.141	0.473	–0.295
	(3.51)	(–1.03)	(1.02)	(–0.58)
AUM^2	–0.422**	0.096	–0.506	0.021
	(–2.42)	(0.57)	(–1.02)	(0.04)
Signatory has Formal Process of Engagements by Internal Staff		0.100***		0.356***
		(5.62)		(3.23)
Number of Collaborative Initiatives Participated besides PRI		0.018***		0.029**
		(7.89)		(2.50)
Observations	1,501	1,404	204	200
Adj. R-squared	0.284	0.412	0.067	0.169

Panel B: Determinants with fixed-effects

	All engagements	Engagements without a lead	Engagements with lead investors	
	Becoming involved	Becoming involved	Becoming a lead investor	Becoming a supporting investor
	(1)	(2)	(3)	(4)
Target Market Cap. ($m, log)	0.000**	0.000	0.023	–0.001
	(2.02)	(1.07)	(1.13)	(–0.32)
Target is Domestic	0.027***	0.025***	0.218***	0.006
	(3.52)	(2.70)	(7.35)	(1.07)
Long-term Institutional Holding in Target	0.001	0.000	0.016	0.000
	(0.87)	(0.70)	(0.19)	(0.00)
Joined PRI before Project Start	0.095***	0.073***	0.009	0.090****
	(5.46)	(3.41)	(0.30)	(3.63)
Signatory Exposure to Target	0.000	–0.006	0.079**	0.017
	(0.02)	(–1.48)	(2.59)	(1.51)
Signatory Holding in Target	–0.005	0.000	0.104***	–0.009
	(–0.51)	(0.13)	(2.90)	(–1.14)
Signatory has Past Projects	–0.110***	–0.112***		–0.075***
	(– 6.31)	(–4.79)		(–3.13)
Signatory has Other Ongoing Projects	–0.053***	–0.059*		–0.066***
	(–3.10)	(–2.57)		(–4.39)
Signatory has Past Projects as Lead			0.012	
			(0.63)	
Signatory has Other Ongoing Projects as Lead			–0.035**	
			(–2.18)	
Total Holding in Target by Lead				–0.069
				(–0.65)
Engagement has Domestic Lead(s)				0.004*
				(1.80)
Engagement has Founding Signatory as Lead(s)				0.003
				(1.63)
Engagement has Pension Plan as Lead(s)				–0.004*
				(–1.69)
Lead with Formal Process of Engagements by Internal Staff				–0.003
				(–0.62)
Observations	342,857	260,596	8,434	80,707
Adj. R-squared	0.243	0.328	0.186	0.175
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. Investor influence is measured as the total value of shareholding in the target, total AUM, and the percentage of signatories with a formal process of engagements by internal staff within the investor group. Holdings refer to log(1+total investors holding $m in target) and total AUM refers to log(1+total AUM $b). In Columns (4)-(6), the investor influence variables are calculated separately for the lead and supporting investor groups. We classify investors based on the geographic location of their headquarters and target firms based on the country of incorporation. Domestic (Foreign) investors are those located in the same (different) country as the target firm. Pension Plans in Investor Group is the number of pension plans divided by total number of investors. Founding Signatories in Investor Group is the number of founding signatories divided by total number of investors. Domestic Signatories in Investor Group is the number of domestic signatories divided by total number of investors. Other target firm controls include market-to-book, stock return, stock return volatility, return on assets, leverage, cash/assets, Capex/assets, R&D/assets, insider holding, foreign sales (%). In Panel B, we additionally introduce ESG ratings from Refinitiv. Variables are defined in Appendix C. All regressions incorporate industry fixed effects (2-digit SIC) and Columns (4)-(6) incorporate calendar year of engagement start date fixed effects. Robust standard errors are used to calculate *z*-statistics reported in parentheses. 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 investors	**Engagements with all investors**			**Engagements with lead investor**		
	Holding	**AUM**	**Formal process**	**Holding**	**AUM**	**Formal process**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Target Market Cap. ($m, log)	–0.000	0.011	0.031**	0.010	0.021	0.023
	(–0.02)	(0.95)	(2.43)	(0.38)	(0.82)	(0.94)
Target Dividend Payout	0.061*	0.062*	0.072**	0.046	0.036	0.072
	(1.73)	(1.80)	(2.10)	(0.88)	(0.65)	(1.00)
Target Sales Growth	–0.221**	–0.222**	–0.236**	–0.250	–0.203	–0.173
	(–2.26)	(–2.29)	(–2.40)	(–1.45)	(–1.17)	(–1.00)
Long-Term Inst. Holding in Target	0.209*	0.294***	0.321***	–0.148	0.058	0.160
	(1.84)	(2.89)	(3.14)	(–0.84)	(0.37)	(1.09)
French Legal Origin (target)	0.148***	0.163***	0.155***	0.031	0.026	0.016
	(2.78)	(3.03)	(2.87)	(0.39)	(0.33)	(0.22)
Scandinavian Legal Origin (target)	0.082	0.099	0.100	–0.186	–0.188	–0.160
	(0.93)	(1.12)	(1.14)	(–0.97)	(–0.93)	(–0.87)
German Legal Origin (target)	–0.005	0.001	0.007	0.030	–0.026	0.033
	(–0.09)	(0.02)	(0.12)	(0.23)	(–0.18)	(0.29)
Pension Plans in Investor Group	0.544***	0.472***	0.569***	0.695*	0.740*	0.754*
	(3.79)	(3.23)	(3.99)	(1.74)	(1.90)	(1.84)
Founding Signatories in Investor Group	0.016	0.091	–0.056	0.277	0.232	0.753**
	(0.11)	(0.60)	(–0.35)	(1.44)	(1.22)	(2.33)
Domestic Signatories in Investor Group	0.152	0.249	0.172	–0.045	–0.008	–0.008
	(1.03)	(1.59)	(1.06)	(–0.24)	(–0.04)	(–0.03)
Engagement has Lead Investor(s)	0.373***	0.391***	0.263***			
	(8.38)	(8.35)	(5.22)			
Investor Group Influence	0.020*	0.054**	1.067***			
	(1.91)	(2.33)	(4.14)			
Supporting Investor Influence				0.032**	0.031**	0.833*
				(2.05)	(1.98)	(1.80)
Lead Investor Influence				0.031**	0.050***	0.157
				(2.13)	(2.74)	(1.29)
Engagement has Pension Plan as Lead(s)				–0.182*	–0.245**	–0.201**
				(–1.72)	(–2.23)	(–2.11)
Engagement has Founding Signatory as Lead(s)				–0.162***	–0.197***	–0.103*
				(–2.72)	(–3.05)	(–1.83)

Engagement has Domestic Lead(s)				0.211***	0.249***	0.161**
				(2.92)	(3.10)	(2.46)
Observations	989	989	989	280	280	262
Pseudo R-squared	0.172	0.173	0.182	0.277	0.279	0.268
Target firm controls	Y	Y	Y	Y	Y	Y
Year Fixed Effects	N	N	N	Y	Y	Y
Industry Fixed Effects	Y	Y	Y	Y	Y	Y

Panel B: Influence of investors and ESG ratings

Panel B: Influence of investors and ESG ratings	**Engagements with all investors**			**Engagements with lead investor**		
	Holding	**AUM**	**Formal process**	**Holding**	**AUM**	**Formal process**
	(**1**)	(**2**)	(**3**)	(**4**)	(**5**)	(**6**)
Target Market Cap. ($tr, log)	–0.047**	–0.038**	–0.020	–0.015	0.002	–0.002
	(–2.37)	(–1.97)	(–1.04)	(–0.42)	(0.06)	(–0.05)
Target Dividend Payout	0.041	0.044	0.061	0.079	0.064	0.085
	(1.09)	(1.16)	(1.61)	(1.37)	(1.07)	(1.24)
Target Sales Growth	–0.278**	–0.268**	–0.267**	–0.091	–0.061	–0.040
	(–2.33)	(–2.25)	(–2.23)	(–0.50)	(–0.32)	(–0.21)
Long-Term Inst. Holding in Target	0.141	0.204*	0.215*	–0.194	0.037	0.078
	(1.06)	(1.70)	(1.76)	(–1.04)	(0.23)	(0.54)
French Legal Origin (target)	0.076	0.095	0.090	–0.011	–0.022	–0.020
	(1.14)	(1.42)	(1.34)	(–0.13)	(–0.24)	(–0.25)
Scandinavian Legal Origin (target)	0.035	0.064	0.077	–0.430*	–0.410*	–0.352
	(0.33)	(0.60)	(0.73)	(–1.91)	(–1.79)	(–1.53)
German Legal Origin (target)	–0.005	0.009	0.022	0.026	–0.047	0.006
	(–0.08)	(0.13)	(0.31)	(0.20)	(–0.34)	(0.05)
Pension Plans in Investor Group	0.627***	0.539***	0.838***	1.188**	1.116**	1.302***
	(3.37)	(2.86)	(4.54)	(2.39)	(2.20)	(2.86)
Founding Signatories in Investor Group	0.160	0.251	0.133	0.200	0.148	0.746**
	(0.95)	(1.43)	(0.70)	(1.04)	(0.75)	(2.16)
Domestic Signatories in Investor Group	0.055	0.169	0.099	–0.156	–0.167	–0.141
	(0.35)	(1.00)	(0.57)	(–0.76)	(–0.79)	(–0.48)
Engagement has Lead Investor(s)	0.363***	0.386***	0.221***			
	(7.43)	(7.63)	(3.91)			
Investor Group Influence	0.016	0.062**	1.400***			
	(1.36)	(2.48)	(4.72)			
Supporting Investor Influence				0.037**	0.039**	0.497
				(2.16)	(2.15)	(1.02)
Lead Investor Influence				0.027*	0.033*	0.151
				(1.84)	(1.72)	(1.19)
Engagement has Pension Plan as Lead(s)				–0.208*	–0.273**	–0.231**
				(–1.84)	(–2.38)	(–2.31)
Engagement has Founding Signatory as Lead(s)				–0.158**	–0.176***	–0.094*
				(–2.58)	(–2.61)	(–1.69)
Engagement has Domestic Lead(s)				0.227***	0.245***	0.177***
				(2.94)	(2.88)	(2.64)
Refinitiv Rating	0.004***	0.004***	0.004***	0.002	0.002	0.002
	(3.50)	(3.75)	(4.11)	(1.22)	(1.00)	(1.57)
Observations	780	780	780	254	254	236
Pseudo R-squared	0.191	0.195	0.209	0.306	0.302	0.300
Target firm controls	Y	Y	Y	Y	Y	Y
Year Fixed Effects	N	N	N	Y	Y	Y
Industry Fixed Effects	Y	Y	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$_{Year+1\&+2}$ is defined as one for event window Year+1 and Year+2. Post-engagment$_{Year+3}$ is defined as one for event window 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 and are used to calculate *t*-statistics reported in parentheses. 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	**with Lead**	**no Lead**	**with Lead**	**no Lead**
Post-engagement$_{Year+1\&+2}$	**0.046*****	–0.010	**0.041*****	–0.001
	(**3.02**)	(–0.97)	(**2.87**)	(–0.14)
Post-engagement$_{Year+3}$	**0.092*****	0.011	**0.088*****	0.010
	(**3.66**)	(0.78)	(**3.38**)	(0.88)
Target Market Cap. ($t)	0.147	–0.263	0.299**	–0.176
	(0.88)	(–1.22)	(2.19)	(–0.99)
Target Market-to-Book	0.034***	0.040***	0.039***	0.033***
	(4.50)	(4.74)	(4.78)	(4.73)
Target Leverage	–0.534***	–0.463***	–0.510***	–0.349**
	(–3.50)	(–2.84)	(–3.26)	(–2.38)
Target Return Volatility	1.448***	1.946***	1.722***	1.955***
	(3.87)	(7.47)	(4.44)	(8.99)
Observations	1,830	5,569	1,830	5,569
Adj R-squared	0.184	0.125	0.181	0.144
Panel B: Engagements successful vs. unsuccessful	**Success**	**Unsuccessful**	**Success**	**Unsuccessful**
Post-engagement$_{Year+1\&+2}$	**0.029****	–0.023	**0.032****	–0.016
	(**2.02**)	(–1.23)	(**2.40**)	(–0.96)
Post-engagement$_{Year+3}$	0.067***	0.038	0.058***	0.031
	(3.05)	(1.47)	(2.88)	(1.36)
Target Controls	Y	Y	Y	Y
Observations	2,205	2,660	2,205	2,660
Adj R-squared	0.151	0.166	0.153	0.194
Panel C: Successful engagements with lead vs. unsuccessful engagements without lead	**Success & Lead**	**Unsuccessful & without Lead**	**Success & Lead**	**Unsuccessful & without Lead**
Post-engagement$_{Year+1\&+2}$	**0.061*****	–0.038	**0.050*****	–0.026
	(**3.07**)	(–1.65)	(**2.63**)	(–1.30)
Post-engagement$_{Year+3}$	**0.126*****	0.035	**0.102*****	0.027
	(**3.43**)	(1.10)	(**2.72**)	(1.01)
Target Controls	Y	Y	Y	Y
Observations	1,104	2,236	1,104	2,236
Adj R-squared	0.150	0.160	0.143	0.194

Table 10: Target accounting performance

This table examines the accounting performance of target firms after engagements. The dependent variables are ROA, sales growth, and stock return volatility. 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$_{Year+1\&+2}$ is defined as one for event window Year+1 and Year+2. Post-engagment$_{Year+3}$ is defined as one for event window Year+3. Target firm characteristics are obtained from the corresponding fiscal year end. 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 and are used to calculate *t*-statistics reported in parentheses. All continuous variables are winsorized at 1st and 99th percentile levels. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Panel A: Engagements with vs. without lead	**ROA**		**Sales growth**		**Stock return volatility**	
	with Lead	**without Lead**	**with Lead**	**without Lead**	**with Lead**	**without Lead**
Post-engagement$_{Year+1\&+2}$	**0.009****	0.001	0.023**	0.012*	**–0.004****	–0.000
	(**2.40**)	(0.68)	(2.11)	(1.90)	(**–2.32**)	(–0.11)
Post-engagement$_{Year+3}$	**0.024*****	0.002	**0.062*****	0.023***	–0.005*	–0.002
	(**4.01**)	(0.78)	(**3.55**)	(2.94)	(–1.89)	(–1.14)
Target Market Cap. ($tr)	0.222**	0.100*	0.667***	0.525***	–0.086***	–0.042
	(1.98)	(1.82)	(2.75)	(2.78)	(–3.44)	(–1.58)
Target Market-to-Book	0.005**	0.006***	0.016***	0.009**	–0.001	0.000
	(2.17)	(4.63)	(2.79)	(2.05)	(–0.79)	(0.22)
Country-Industry Control	0.112**	0.089***	0.299***	0.341***	0.185***	0.205***
	(2.29)	(2.64)	(6.87)	(10.14)	(4.59)	(7.57)
Observations	1,816	5,714	1,799	5,675	1,790	5,581
Adj R-squared	0.714	0.755	0.409	0.304	0.642	0.598
Panel B: Engagements successful vs. unsuccessful	**Success**	**Unsuccessful**	**Success**	**Unsuccessful**	**Success**	**Unsuccessful**
Post-engagement$_{Year+1\&+2}$	**0.007****	–0.002	**0.031*****	0.002	–0.002	0.002
	(**2.38**)	(–0.85)	(**3.10**)	(0.13)	(–0.78)	(1.00)
Post-engagement$_{Year+3}$	**0.015*****	0.003	0.047***	0.028*	0.001	0.003
	(**3.40**)	(0.72)	(3.11)	(1.77)	(0.38)	(1.03)
Target Controls	Y	Y	Y	Y	Y	Y
Country-Industry Control	Y	Y	Y	Y	Y	Y
Observations	2,230	2,701	2,215	2,686	2,194	2,638
Adj R-squared	0.702	0.739	0.331	0.284	0.637	0.607
Panel C: Successful with lead vs. unsuccessful without lead	**Success with Lead**	**Unsuccessful without Lead**	**Success with Lead**	**Unsuccessful without Lead**	**Success with Lead**	**Unsuccessful without Lead**
Post-engagement$_{Year+1\&+2}$	**0.013****	–0.004	**0.039****	0.000	**–0.004***	0.004
	(**2.58**)	(–1.25)	(**2.48**)	(0.02)	(**–1.83**)	(1.54)
Post-engagement$_{Year+3}$	**0.032*****	–0.001	**0.086*****	0.022	**–0.003**	0.006
	(**4.09**)	(–0.15)	(**3.21**)	(1.11)	(**–0.96**)	(1.61)
Target Controls	Y	Y	Y	Y	Y	Y
Country-Industry Control	Y	Y	Y	Y	Y	Y
Observations	1,117	2,286	1,110	2,272	1,102	2,233
Adj R-squared	0.683	0.743	0.412	0.264	0.647	0.599

Table 11: Target shareholding by investors

This table examines the change in target firm's shareholdings by investors after engagements. The dependent variables are total involved investors holdings in target, total lead investors holding in target, and total supporting investors holding in target. 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$_{Year+1\&+2}$ is defined as one for event window Year+1 and Year+2. Post-engagment$_{Year+3}$ is defined as one for event window Year+3. Target firm characteristics are obtained from the corresponding fiscal year end. 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 table contrasts successful engagements with unsuccessful ones. All regressions incorporate target firm fixed effects and calendar year fixed effects. Standard errors are clustered at the target firm level and are used to calculate *t*-statistics reported in parentheses. All continuous variables are winsorized at 1st and 99th percentile levels. ∗∗∗, ∗∗, and ∗ denote significance at the 1%, 5%, and 10% level, respectively.

	Engagements without lead		**Engagements with Lead**			
	Total involved investors holding in target		**Total lead investors holding in target**		**Total supporting investors holding in target**	
	Success	**Unsuccessful**	**Success**	**Unsuccessful**	**Success**	**Unsuccessful**
Post-engagement$_{Year+1\&+2}$	–0.000	–0.002	0.000	–0.004	–0.006**	–0.012
	(–0.39)	(–1.24)	(0.62)	(–0.93)	(–2.05)	(–1.52)
Post-engagement$_{Year+3}$	–0.002	–0.004	0.000	–0.009	–0.008	–0.020
	(–1.12)	(–1.28)	(0.22)	(–1.00)	(–1.56)	(–1.49)
Target Market Cap. ($tr)	–0.057	0.000	–0.021***	0.000	–0.053	0.001
	(–1.43)	(0.31)	(–4.21)	(0.26)	(–0.87)	(0.05)
Target Market-to-Book	0.001	0.000	0.000*	–0.000	–0.000	–0.000
	(1.06)	(1.38)	(1.74)	(–0.58)	(–0.87)	(–0.25)
Country-Industry Control	–0.031	0.828*	0.941	0.948	0.802**	0.284
	(–0.15)	(1.95)	(1.07)	(0.24)	(2.26)	(0.53)
Observations	1,118	2,293	1,106	414	1,106	414
Adj R-squared	0.792	0.754	0.686	0.706	0.739	0.634

Internet Appendix (Not for publication)

Coordinated Engagements

This is an addendum to our paper 'Coordinated Engagements'. In that paper we report on the characteristics of target companies selected through the PRI Collaboration Platform for coordinated engagements, and we present summary information using alternative measures for ESG (Table 3). In the interests of brevity, our subsequent analysis (Tables 4 and 8) uses ESG information from a single provider, namely Refinitiv, which we select as it provides slightly broader coverage than the widely used alternative, MSCI. We state in our paper that our findings are qualitatively similar if we utilize MSCI ESG data. In this Internet Appendix we report alternative estimations using MSCI rather than Refinitiv. In addition, we have hand-collected employee ratings as an indicator of corporate culture. Unfortunately, we have these ratings for only 104 out of our total of 224 investors, and we therefore defer reporting our findings to this Internet Appendix.

ESG Ratings

We have noted in our paper the lack of correlation between alternative ESG ratings (see footnote 1111). We have used Refinitiv's Asset4 service as our primary source, so here we substitute the MSCI ESG rating for the Refinitiv data, and examine the impact on our key results. In **Table IA.1** we re-estimate Table 4 of our paper, and in **Table IA.2** we a re-estimate Table 8. Our tests indicate that the conclusions drawn in the paper are robust when an alternative ESG data source is employed. Below, we provide full details of the material presented more briefly in Table 8 of the paper.

Employee Ratings

Guiso, Sapienza and Zingales (2015) and Graham, Grennan, Harvey, and Rajgopal (2019) argue that corporate culture matters for firm performance and value. Consistent with this view, Edmans, Li, and Zhang (2020) report that companies with an organizational culture cultivating employee satisfaction tend to outperform. Graham et al (op. cit.) document that the 'Culture & Values' rating on the Glassdoor website, which provides crowd-sourced employee reviews, externally validates their survey measure of an effective culture, which is defined as the one that "*promotes the behaviors needed to successfully execute the firm's strategies and achieve its goals.*" Following the latter authors, for each institution in our sample we hand-collected the 'culture & value' ratings together with the 'overall' employee ratings from the Glassdoor website on July 2018. The correlation between 'culture & value' ratings and 'overall' ratings is 0.86.

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. Employee ratings are available for 104 investors in our sample, and our results are reported in **Table IA.3** and **Table IA.4**. 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 (untabulated). We also find that the average employee rating of the lead, but not the supporting, investors plays a significant role for the success of engagements (untabulated). 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.

Conclusion

We report in this Internet Appendix detailed results that are omitted from our paper. The findings reported here are consistent with the conclusions drawn in our paper.

Table IA.1: Determinants of targeting – MSCI ESG rating

This table repeats Table 4 with MSCI ESG rating, instead of Refinitiv rating, and 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 from a probit model. 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 industry (2-digit SIC) and year fixed effects. Robust standard errors are used to calculate *z*-statistics reported in parentheses. 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)
Market Cap. (log, $m)	0.216***	0.200***
	(19.46)	(11.72)
Market-to-Book	–0.003	–0.001
	(–0.55)	(–0.12)
Stock Return	–0.077***	–0.068*
	(–2.85)	(–1.65)
Stock Return Volatility	0.126	–0.463
	(0.42)	(–1.24)
Return on Assets	–0.293**	–0.325*
	(–2.11)	(–1.92)
Leverage	0.071	–0.198*
	(0.92)	(–1.93)
Dividend Payout	0.042**	0.046**
	(2.32)	(2.16)
Sales Growth	–0.211***	–0.109**
	(–4.79)	(–2.32)
Cash/Assets	–0.251*	–0.576***
	(–1.86)	(–2.76)
Capex/Assets	–0.002	0.272
	(–0.01)	(1.12)
R&D/Assets	–3.055***	–2.234***
	(–7.03)	(–2.81)
Long-Term Institutional Holding	–0.040	–0.070
	(–0.77)	(–0.90)
Insider Holding	–0.011	–0.026
	(–0.26)	(–0.39)
Foreign Sales	0.141***	0.156***
	(4.39)	(3.74)
French Legal Origin	0.202***	0.243***
	(4.94)	(2.94)
Scandinavian Legal Origin	0.416***	0.158
	(5.99)	(1.38)
German Legal Origin	0.074**	0.049
	(2.47)	(0.80)
Involved Investors Holding	1.209***	
	(2.84)	
Lead Investors Holding		6.774***
		(3.39)
Supporting Investors Holding		–0.680
		(–0.80)
MSCI ESG Rating	0.011**	0.009
	(2.11)	(1.24)
Observations	3,178	1,136
Pseudo R-squared	0.346	0.475
Industry Fixed Effects	Y	Y
Year Fixed Effects	Y	Y

Table IA.2: Determinants of successful engagements – MSCI ESG rating

This table repeats Table 8, Panel B with MSCI ESG rating, instead of Refinitiv rating, and 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. Investor influence is measured as the total value of shareholding in the target, total AUM, and the percentage of signatories with a formal process of engagements by internal staff within the investor group. Holdings refer to log(1+total investors holding $m in target) and total AUM refers to log(1+total AUM $b). In Columns (4)-(6), the investor influence variables are calculated separately for the lead and supporting investor groups. We classify investors based on the geographic location of their headquarters and target firms based on the country of incorporation. Domestic (Foreign) investors are those located in the same (different) country as the target firm. Pension Plans in Investor Group is the number of pension plans divided by total number of investors. Founding Signatories in Investor Group is the number of founding signatories divided by total number of investors. Domestic Signatories in Investor Group is the number of domestic signatories divided by total number of investors. All variables are defined in Appendix C. Other target firm controls include market-to-book, stock return, stock return volatility, return on assets, leverage, cash/assets, Capex/assets, R&D/assets, insider holding, foreign sales (%). In Panel B, we additionally introduce ESG ratings from Refinitiv. All regressions incorporate industry fixed effects (2-digit SIC) and Columns (4)-(6) incorporate calendar year of engagement start date fixed effects. Robust standard errors are used to calculate *z*-statistics reported in parentheses. All continuous variables are winsorized at 1st and 99th percentile levels. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Prob (D_Success=1)					
	Engagements with all investors			**Engagements with lead investor**		
Investor influence measured as:	**Holding**	**AUM**	**Formal process**	**Holding**	**AUM**	**Formal process**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Target Market Cap. ($tr, log)	–0.024	–0.012	0.007	–0.069**	–0.058*	–0.067***
	(–1.01)	(–0.52)	(0.30)	(–2.01)	(–1.67)	(–2.62)
Target Dividend Payout	0.081**	0.083**	0.095**	0.079	0.087	0.162***
	(2.12)	(2.23)	(2.55)	(1.24)	(1.32)	(2.61)
Target Sales Growth	–0.328**	–0.321**	–0.344***	–0.071	–0.044	0.062
	(–2.55)	(–2.51)	(–2.66)	(–0.41)	(–0.25)	(0.41)
Long-Term Inst. Holding in Target	0.254	0.328**	0.356**	–0.149	0.049	0.273**
	(1.63)	(2.34)	(2.49)	(–0.76)	(0.30)	(2.28)
French Legal Origin	0.090	0.117	0.106	0.026	0.002	0.052
	(1.16)	(1.49)	(1.35)	(0.33)	(0.02)	(0.94)
Scandinavian Legal Origin	–0.066	–0.025	–0.042	–0.346	–0.415	–0.518**
	(–0.56)	(–0.21)	(–0.36)	(–1.39)	(–1.58)	(–2.31)
German Legal Origin	–0.062	–0.047	–0.053	0.002	–0.078	0.033
	(–0.78)	(–0.57)	(–0.65)	(0.01)	(–0.60)	(0.44)
Pension Plans in Investor Group	0.813***	0.696***	0.989***	1.040**	1.108**	1.053***
	(3.76)	(3.19)	(4.58)	(2.50)	(2.51)	(3.28)
Founding Signatories in Investor Group	0.275	0.358*	0.237	0.271	0.227	0.856***
	(1.42)	(1.82)	(1.08)	(1.37)	(1.08)	(2.91)
Domestic Signatories in Investor Group	0.099	0.258	0.103	–0.018	0.022	0.284
	(0.58)	(1.40)	(0.55)	(–0.10)	(0.11)	(1.42)
Engagement has Lead Investor(s)	0.428***	0.453***	0.303***			
	(8.00)	(8.10)	(4.90)			
Investor Group Influence	0.022	0.072***	1.202***			
	(1.58)	(2.69)	(3.80)			
Supporting Investor Influence				0.040**	0.041**	0.505
				(2.46)	(2.36)	(1.39)
Lead Investor Influence				0.019	0.040**	0.068
				(1.38)	(2.08)	(0.65)
Engagement has Pension Plan as Lead(s)				–0.205*	–0.274**	–0.204**
				(–1.86)	(–2.49)	(–2.44)
Engagement has Founding Signatory as Lead(s)				–0.141**	–0.147**	–0.055
				(–2.42)	(–2.36)	(–1.21)
Engagement has Domestic Lead(s)				0.173**	0.215***	0.123**
				(2.39)	(2.58)	(2.28)
MSCI ESG Rating	0.040**	0.047***	0.042**	–0.004	–0.001	–0.018
	(2.32)	(2.60)	(2.36)	(–0.19)	(–0.07)	(–1.36)
Observations	668	668	668	238	238	221
Pseudo R-squared	0.231	0.236	0.244	0.291	0.297	0.331
Target firm controls	Y	Y	Y	Y	Y	Y
Year Fixed Effects	N	N	N	Y	Y	Y
Industry Fixed Effects	Y	Y	Y	Y	Y	Y

Table IA.3: Determinants of successful engagements – Influence of investors (Full details)

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 four columns include all engagements with data on success and regression variables and the last four 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. Investor influence is measured as the total value of shareholding in the target, total AUM, and the percentage of signatories with a formal process of engagements by internal staff within the investor group. Holdings refer to log(1+total investors holding $m in target) and total AUM refers to log(1+total AUM $b). In Columns (5)-(8), the investor influence variables are calculated separately for the lead and supporting investor groups. We classify investors based on the geographic location of their headquarters and target firms based on the country of incorporation. Domestic (Foreign) investors are those located in the same (different) country as the target firm. All other variables are defined in Appendix C. All regressions incorporate industry fixed effects (2-digit SIC) and Columns (5)-(8) incorporate calendar year of engagement start date fixed effects. Robust standard errors are used to calculate *z*-statistics reported in parentheses. All continuous variables are winsorized at the 1st and 99th percentile levels. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Prob (D_Success=1)							
	Engagements with all investors				**Engagements with lead investor**			
Investor influence measured as:	**Holding**	**AUM**	**Formal process**	**Employee rating**	**Holding**	**AUM**	**Formal process**	**Employee rating**
	(**1**)	(**2**)	(**3**)	(**4**)	(**5**)	(**6**)	(**7**)	(**8**)
Target Market Cap. ($m, log)	–0.000	0.011	0.031**	0.017	0.010	0.021	0.023	–0.027
	(–0.02)	(0.95)	(2.43)	(1.40)	(0.38)	(0.82)	(0.94)	(–0.80)
Target Dividend Payout	0.061*	0.062*	0.072**	0.062*	0.046	0.036	0.072	0.139
	(1.73)	(1.80)	(2.10)	(1.70)	(0.88)	(0.65)	(1.00)	(1.58)
Target Sales Growth	–0.221**	–0.222**	–0.236**	–0.221**	–0.250	–0.203	–0.173	–0.314
	(–2.26)	(–2.29)	(–2.40)	(–2.24)	(–1.45)	(–1.17)	(–1.00)	(–1.34)
Market-to-Book	–0.015	–0.015	–0.017*	–0.016	–0.020	–0.020	–0.015	–0.033
	(–1.51)	(–1.57)	(–1.73)	(–1.57)	(–1.15)	(–1.11)	(–0.90)	(–1.43)
Stock Return	0.017	0.022	0.014	0.008	0.030	0.005	0.009	0.199**
	(0.38)	(0.52)	(0.33)	(0.18)	(0.40)	(0.06)	(0.13)	(2.16)
Stock Return Volatility	–1.048**	–1.007*	–0.926*	–1.214**	0.729	0.592	0.390	–0.203
	(–2.01)	(–1.95)	(–1.79)	(–2.33)	(0.73)	(0.57)	(0.40)	(–0.13)
Return on Assets	–0.225	–0.166	–0.142	–0.162	–0.201	0.115	0.127	0.547
	(–0.76)	(–0.56)	(–0.48)	(–0.54)	(–0.37)	(0.20)	(0.24)	(0.68)
Leverage	–0.056	–0.060	–0.047	–0.065	0.356	0.233	0.160	0.159
	(–0.38)	(–0.41)	(–0.32)	(–0.44)	(1.24)	(0.79)	(0.58)	(0.45)
Cash/Assets	–0.018	–0.050	0.064	0.080	–0.107	–0.053	–0.091	0.021
	(–0.06)	(–0.16)	(0.20)	(0.25)	(–0.18)	(–0.09)	(–0.16)	(0.03)
Capex/Assets	0.057	–0.021	–0.124	–0.020	0.948	0.604	–0.272	0.471
	(0.13)	(–0.05)	(–0.27)	(–0.04)	(1.22)	(0.77)	(–0.36)	(0.50)
R&D/Assets	1.072	1.105	1.080	1.038	11.154**	8.541**	6.735*	4.334
	(1.10)	(1.13)	(1.10)	(1.06)	(2.53)	(2.02)	(1.86)	(1.12)
Foreign Sales (%)	–0.097	–0.077	–0.092	–0.084	–0.030	–0.028	0.066	0.338**
	(–1.47)	(–1.17)	(–1.39)	(–1.27)	(–0.26)	(–0.24)	(0.60)	(2.13)

Investor influence measured as:	Prob (D_Success=1)							
	Engagements with all investors				Engagements with lead investor			
	Holding	AUM	Formal process	Employee rating	Holding	AUM	Formal process	Employee rating
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Long-Term Inst. Holding in Target	0.209*	0.294***	0.321***	0.321***	–0.148	0.058	0.160	0.221
	(1.84)	(2.89)	(3.14)	(3.13)	(–0.84)	(0.37)	(1.09)	(1.13)
French Legal Origin (target)	0.148***	0.163***	0.155***	0.149***	0.031	0.026	0.016	0.064
	(2.78)	(3.03)	(2.87)	(2.77)	(0.39)	(0.33)	(0.22)	(0.60)
Scandinavian Legal Origin (target)	0.082	0.099	0.100	0.096	–0.186	–0.188	–0.160	–0.589***
	(0.93)	(1.12)	(1.14)	(1.10)	(–0.97)	(–0.93)	(–0.87)	(–2.69)
German Legal Origin (target)	–0.005	0.001	0.007	0.000	0.030	–0.026	0.033	0.133
	(–0.09)	(0.02)	(0.12)	(0.01)	(0.23)	(–0.18)	(0.29)	(1.16)
Pension Plans in Investor Group (%)	0.544***	0.472***	0.569***	0.428***	0.695*	0.740*	0.754*	0.588
	(3.79)	(3.23)	(3.99)	(2.84)	(1.74)	(1.90)	(1.84)	(0.97)
Founding Signatories in Investor Group (%)	0.016	0.091	–0.056	0.066	0.277	0.232	0.753**	0.865**
	(0.11)	(0.60)	(–0.35)	(0.43)	(1.44)	(1.22)	(2.33)	(2.00)
Domestic Signatories in Investor Group (%)	0.152	0.249	0.172	0.168	–0.045	–0.008	–0.008	0.093
	(1.03)	(1.59)	(1.06)	(1.01)	(–0.24)	(–0.04)	(–0.03)	(0.28)
Engagement has Lead Investor(s)	0.373***	0.391***	0.263***	0.374***				
	(8.38)	(8.35)	(5.22)	(8.53)				
Investor Group Influence	0.020*	0.054**	1.067***	0.486***				
	(1.91)	(2.33)	(4.14)	(3.12)				
Supporting Investor Influence					0.032**	0.031**	0.833*	0.143
					(2.05)	(1.98)	(1.80)	(0.36)
Lead Investor Influence					0.031**	0.050***	0.157	0.152**
					(2.13)	(2.74)	(1.29)	(2.11)
Engagement has Pension Plan as Lead(s)					–0.182*	–0.245**	–0.201**	0.023
					(–1.72)	(–2.23)	(–2.11)	(0.18)
Engagement has Founding Signatory as Lead(s)					–0.162***	–0.197***	–0.103*	0.010
					(–2.72)	(–3.05)	(–1.83)	(0.13)
Engagement has Domestic Lead(s)					0.211***	0.249***	0.161**	0.108
					(2.92)	(3.10)	(2.46)	(1.19)
Observations	989	989	989	982	280	280	262	155
Pseudo R-squared	0.172	0.173	0.182	0.175	0.277	0.279	0.268	0.270
Year Fixed Effects	N	N	N	N	Y	Y	Y	Y
Industry Fixed Effects	Y	Y	Y	Y	Y	Y	Y	Y

Table IA.4: Determinants of successful engagements – Influence of ESG ratings (Full details)

In this table, we introduce ESG ratings from Refinitiv into the analysis presented in Table IA.3. As before, we examine 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 four columns include all engagements with data on success and regression variables and the last four 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. Investor influence is measured as the total value of shareholding in the target, total AUM, and the percentage of signatories with a formal process of engagements by internal staff within the investor group. Holdings refer to log(1+total investors holding $m in target) and total AUM refers to log(1+total AUM $b). In Columns (5)-(8), the investor influence variables are calculated separately for the lead and supporting investor groups. We classify investors based on the geographic location of their headquarters and target firms based on the country of incorporation. Domestic (Foreign) investors are those located in the same (different) country as the target firm. 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. All other variables are defined in Appendix C. All regressions incorporate industry fixed effects (2-digit SIC) and Columns (5)-(8) incorporate calendar year of engagement start date fixed effects. Robust standard errors are used to calculate *z*-statistics reported in parentheses. All continuous variables are winsorized at 1st and 99th percentile levels. ∗∗∗, ∗∗, and ∗ denote significance at the 1%, 5%, and 10% level, respectively.

	Prob (D_Success=1)							
	Engagements with all investors				**Engagements with lead investor**			
Investor influence measured as:	**Holding**	**AUM**	**Formal process**	**Employee rating**	**Holding**	**AUM**	**Formal process**	**Employee rating**
	(**1**)	(**2**)	(**3**)	(**4**)	(**5**)	(**6**)	(**7**)	(**8**)
Target Market cap ($tr, log)	–0.047**	–0.038**	–0.020	–0.029	–0.015	0.002	–0.002	–0.071**
	(–2.37)	(–1.97)	(–1.04)	(–1.48)	(–0.42)	(0.06)	(–0.05)	(–2.01)
Target Dividend Payout	0.041	0.044	0.061	0.047	0.079	0.064	0.085	0.208***
	(1.09)	(1.16)	(1.61)	(1.16)	(1.37)	(1.07)	(1.24)	(3.16)
Target Sales Growth	–0.278**	–0.268**	–0.267**	–0.253**	–0.091	–0.061	–0.040	–0.139
	(–2.33)	(–2.25)	(–2.23)	(–2.07)	(–0.50)	(–0.32)	(–0.21)	(–0.62)
Market-to-Book	–0.005	–0.006	–0.006	–0.006	–0.007	–0.010	–0.006	–0.025
	(–0.43)	(–0.50)	(–0.52)	(–0.52)	(–0.41)	(–0.54)	(–0.40)	(–1.40)
Stock Return	0.040	0.059	0.058	0.051	0.089	0.063	0.072	0.243***
	(0.70)	(1.04)	(1.05)	(0.88)	(1.09)	(0.74)	(0.98)	(2.77)
Stock Return Volatility	–1.196*	–1.165*	–1.117	–1.282*	1.928	1.622	0.448	0.700
	(–1.69)	(–1.66)	(–1.61)	(–1.79)	(1.53)	(1.24)	(0.41)	(0.53)
Return on Assets	–0.468	–0.414	–0.428	–0.445	–0.439	–0.145	–0.119	0.009
	(–1.27)	(–1.12)	(–1.17)	(–1.19)	(–0.79)	(–0.24)	(–0.22)	(0.01)
Leverage	–0.151	–0.172	–0.184	–0.204	0.493	0.393	0.250	0.188
	(–0.82)	(–0.93)	(–1.00)	(–1.10)	(1.61)	(1.26)	(0.90)	(0.57)
Cash/Assets	–0.306	–0.337	–0.186	–0.127	–0.184	–0.093	–0.163	0.181
	(–0.79)	(–0.87)	(–0.48)	(–0.32)	(–0.30)	(–0.15)	(–0.30)	(0.32)
Capex/Assets	–0.044	–0.146	–0.307	–0.086	1.240	0.945	0.438	1.429*
	(–0.08)	(–0.27)	(–0.55)	(–0.16)	(1.50)	(1.10)	(0.61)	(1.81)
R&D/Assets	1.189	1.264	1.131	1.332	4.355	2.219	1.211	0.364
	(1.01)	(1.08)	(0.96)	(1.13)	(1.14)	(0.61)	(0.42)	(0.11)
Insider Holding	0.233**	0.240***	0.233**	0.278***	0.061	0.009	0.050	0.359**
	(2.57)	(2.62)	(2.55)	(3.03)	(0.44)	(0.07)	(0.39)	(2.45)

Investor influence measured as:	Prob (D_Success=1)							
	Engagements with all investors				Engagements with lead investor			
	Holding	AUM	Formal process	Employee rating	Holding	AUM	Formal process	Employee rating
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Foreign Sales (%)	–0.101	–0.084	–0.113	–0.095	–0.049	–0.011	0.092	0.339**
	(–1.30)	(–1.09)	(–1.46)	(–1.23)	(–0.39)	(–0.09)	(0.76)	(2.38)
Long-Term Inst. Holding in Target	0.076	0.095	0.090	0.239*	–0.194	0.037	0.078	0.350**
	(1.06)	(1.70)	(1.76)	(1.96)	(–1.04)	(0.23)	(0.54)	(2.25)
French Legal Origin (target)	0.076	0.095	0.090	0.081	–0.011	–0.022	–0.020	0.001
	(1.14)	(1.42)	(1.34)	(1.20)	(–0.13)	(–0.24)	(–0.25)	(0.01)
Scandinavian Legal Origin (target)	0.035	0.064	0.077	0.059	–0.430*	–0.410*	–0.352	–0.822***
	(0.33)	(0.60)	(0.73)	(0.56)	(–1.91)	(–1.79)	(–1.53)	(–3.49)
German Legal Origin (target)	–0.005	0.009	0.022	–0.001	0.026	–0.047	0.006	0.124
	(–0.08)	(0.13)	(0.31)	(–0.01)	(0.20)	(–0.34)	(0.05)	(1.58)
Pension Plans in Investor Group (%)	0.627***	0.539***	0.838***	0.499***	1.188**	1.116**	1.302***	2.640***
	(3.37)	(2.86)	(4.54)	(2.60)	(2.39)	(2.20)	(2.86)	(3.73)
Founding Signatories in Investor Group (%)	0.160	0.251	0.133	0.273	0.200	0.148	0.746**	1.296***
	(0.95)	(1.43)	(0.70)	(1.48)	(1.04)	(0.75)	(2.16)	(2.78)
Domestic Signatories in Investor Group (%)	0.055	0.169	0.099	0.055	–0.156	–0.167	–0.141	0.632
	(0.35)	(1.00)	(0.57)	(0.31)	(–0.76)	(–0.79)	(–0.48)	(1.58)
Engagement has Lead Investor(s)	0.363***	0.386***	0.221***	0.371***				
	(7.43)	(7.63)	(3.91)	(7.70)				
Investor Group Influence	0.016	0.062**	1.400***	0.596***				
	(1.36)	(2.48)	(4.72)	(3.43)				
Supporting Investor Influence					0.037**	0.039**	0.497	–0.612
					(2.16)	(2.15)	(1.02)	(–1.41)
Lead Investor Influence					0.027*	0.033*	0.151	0.062
					(1.84)	(1.72)	(1.19)	(1.01)
Engagement has Pension Plan as Lead(s)					–0.208*	–0.273**	–0.231**	–0.002
					(–1.84)	(–2.38)	(–2.31)	(–0.02)
Engagement has Founding Signatory as Lead(s)					–0.158**	–0.176***	–0.094*	0.116*
					(–2.58)	(–2.61)	(–1.69)	(1.78)
Engagement has Domestic Lead(s)					0.227***	0.245***	0.177***	–0.002
					(2.94)	(2.88)	(2.64)	(–0.03)
Refinitiv Rating	0.004***	0.004***	0.004***	0.004***	0.002	0.002	0.002	0.005**
	(3.50)	(3.75)	(4.11)	(3.87)	(1.22)	(1.00)	(1.57)	(2.53)
Observations	780	780	780	773	254	254	236	143
Pseudo R-squared	0.191	0.195	0.209	0.198	0.306	0.302	0.300	0.391
Year Fixed Effects	N	N	N	N	Y	Y	Y	Y
Industry Fixed Effects	Y	Y	Y	Y	Y	Y	Y	Y

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