Incident-Driven ESG Engagement*

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Abstract

We examine when and why institutional investors engage portfolio firms on ESG issues using proprietary engagement records from a European asset manager. Salient negative incidents emerge as a powerful trigger—second only to firm size—because they heighten reputational accountability for investors and reveal new information about hidden ESG weaknesses, particularly at firms perceived as ESG leaders. Monitoring also extends along the supply chain: incidents at key suppliers prompt investor engagement with focal firms. Finally, engagement is associated with higher firm value, stronger ESG performance, and increased cash flows. Together, the findings illuminate the drivers and mechanisms of ESG engagement and underscore its role as an effective channel of external corporate governance.

Keywords: Shareholder engagement; institutional investors; ESG incidents; ESG sentiments; firm value.

JEL classifications: G34, G23, G14, M14, Q56

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1 Introduction

In recent years, institutional investors have been increasingly expected to promote sustainable practices and hold firms accountable for environmental, social, and governance (ESG) failures. Taking climate issues as an example, a survey of over 800 finance academics, practitioners, and economists shows that pressure from institutional investors is viewed as one of the most influential forces driving firms to cut carbon emissions and manage climate risks (Stroebel and Wurgler, 2021). Many countries, including the UK, Japan, and Singapore, have adopted stewardship codes to guide such responsibilities to ESG issues.[1] The public also expects institutional investors to play a highly responsible role, frequently criticizing them for inadequate commitment to ESG issues.[2]

One key channel for institutional investors to influence the ESG practices of portfolio firms is engagement (Krueger et al., 2020; Broccardo et al., 2022; Kahn et al., 2023), which refers to a set of actions taken to influence corporate behavior, typically involving private dialogues, meetings, and other forms of communications. Yet engagement appears to be highly selective, involving only a small subset of portfolio firms. For example, Heath et al. (2024) find that 11 major institutional investors engage, on average, with about 12% of their portfolio firms each year.[3] In the ESG context, Dimson et al. (2015) document roughly 196 engagements per year by one asset manager, while Hoepner et al. (2024) report about 103 per year for another. Derrien et al. (2024a) show that BlackRock targeted only 11% of its portfolio firms for climate-related engagement in 2020. These patterns raise a natural question: what drives institutional investors' decisions to engage on ESG issues? More specifically, why do they choose to engage with certain firms at a given point in time rather than with others or at other times?

Prior research has analyzed the characteristics of targeted firms and found that they often differ from non-targeted firms in dimensions such as size, ownership structure, stakes of focal investors, financial performance, discretionary spending, capital structure, and ESG profiles (e.g., Dimson et al., 2015; Barko et al., 2022; Derrien et al., 2024a; Azar et al., 2021; Heath et al., 2024). However, these characteristics are largely static. While they help describe cross-sectional differences between engaged and non-engaged firms, they cannot fully explain when

[1] Specifically, the UK Stewardship Code 2020, Japan's Stewardship Code 2020, and the Singapore Stewardship Principles for Responsible Investors 2022.

[2] See, for example, Financial Times, 2019; Financial Times, 2020.

[3] The authors hand-collected the list of engaged firms each year from the stewardship reports of eleven large institutional investors. However, they do not provide detailed descriptions of the engagement topics in their paper, although they note that a large proportion of engagements are related to proxy voting issues, with some addressing ESG matters.

and why an investor makes the engagement decision.

The rationale for ESG engagement is also less clear-cut, given that such engagement is often characterized by uncertain financial returns and significant costs. To begin with, it can be hard to assess the expected payoff of engagement on ESG issues *ex ante*, as the financial materiality of such issues can vary substantially across topics (Krüger, 2015) and across contexts such as firm size or industry (Derrien et al., 2024b). Moreover, engagement can entail a non-trivial amount of costs. For example, investors may need to conduct research, such as on-site inspections, to monitor ESG practices, which requires dedicated manpower and funds. Acquiring such information can be even more challenging given the lack of robust, verifiable ESG information from firms (see Christensen et al., 2021; Krueger et al., 2024, for discussions) and the considerable divergence in ESG performance assessments by external agencies (Berg et al., 2022).

In this research, we argue that ESG incidents, which are salient, negative, and publicly observable events that reveal failures in a firm's ESG practices, are a significant trigger of engagement decisions. Such events can alter the calculus of engagement at least in two ways. First, they elevate public and market scrutiny, creating reputational pressure for asset managers to demonstrate their stewardship credentials through proactive engagement (reputational accountability). This pressure often originates from asset owners, who have been shown to prefer financial products with stronger sustainability profiles, including mutual funds (Hartzmark and Sussman, 2019), hedge funds (Liang et al., 2022), and private equity funds (Duevski et al., 2024). Survey evidence shows that protecting reputation is the most common reason institutional investors cite for engaging on climate issues (Krueger et al., 2020). Thus, ESG incidents can raise the expected return to engagement by enabling asset managers to safeguard their ESG reputation.

Second, ESG incidents serve as informational shocks that reveal hidden ESG risks, prompting investors to monitor more intensively (informational updating). ESG incidents are public signals that can change how various market participants assess a firm's future prospects. For example, such incidents can lead investors to reassess firm value, as reflected in negative stock market reactions (Krüger, 2015; Yun, 2024); they can cause analysts to update their expectations, resulting in downward revisions to earnings forecasts (Derrien et al., 2024b); and they can alter customer perceptions, triggering product boycotts or demand reductions (Duan et al., 2024; Houston et al., 2024; Bisetti et al., 2024). Therefore, ESG incidents offer timely information that lowers the cost for asset managers to identify ESG failures, thereby mitigating the frictions to information acquisition. Together, these mechanisms help explain when and why investors

choose to engage.

Following extant literature, we use a proprietary dataset of detailed ESG engagement records from a large European asset management company to examine the role of ESG incidents in triggering engagement decisions. The asset manager operates globally and has a long history of integrating ESG considerations into its investment practices. From January 2010 to March 2023, the asset manager recorded 1,802 engagements involving 1,220 firms worldwide.

We begin by testing the effects of firms' own ESG incidents on engagement decisions. Following prior literature (Dimson et al., 2015; Brav et al., 2008; Barko et al., 2022), we match each engaged firm with up to five non-engaged portfolio firms that are most similar in terms of market-to-book ratio and firm size, within the same industry and country. This matching approach allows us to construct a comparable group of non-engaged firms. We find that ESG incidents significantly increase the likelihood of engagement. Benchmarking the economic significance of ESG incidents against other firm characteristics, we find that the effect is non-trivial and ranks second only to firm size, after controlling for industry-by-month and country-by-month fixed effects. A combined model including all three ESG incident types shows that engagements are generally most responsive to incidents in the same domain, suggesting that we indeed capture meaningful effects of incidents on engagement rather than spurious correlations. We document the main effects even after controlling for firm ESG ratings, suggesting that conventional ESG measures do not fully capture this relationship.

To test the underlying mechanisms of shareholder responses to incidents, we first use a novel ESG sentiment dataset to assess their impact and find that such incidents significantly worsen public perceptions of firms' ESG performance. We then examine the reputational accountability mechanism by testing whether responses are stronger when the potential reputational cost is higher. We focus on two firm characteristics: firm size and media exposure. Since larger firms and those with greater media exposure typically attract more public attention, we expect ESG incidents involving such firms to pose a greater reputational cost for the asset manager. We find that the asset manager is indeed more likely to respond to ESG incidents involving larger and more visible firms, providing evidence for the reputational accountability channel.

Next, we test the informational updating mechanism by examining whether incidents elicit stronger responses when they are more likely to convey new information. Given that ESG incidents are salient negative events, they should be a stronger informational shock for firms perceived to have good ESG performance. Consistent with this prediction, we find that the asset manager is more likely to engage higher-ESG firms following incidents, suggesting informational

updating as another channel.

Recent research increasingly shows that ESG failures can propagate to economically linked entities. One important channel of such transmission is the supply chain. For example, Lin et al. (2024) finds that corporate customers perform worse when their suppliers are involved in ESG controversies. This raises a natural question: do firm investors pay attention to these more implicit threats, and if so, how? Prior work shows that corporate customers respond to ESG risks in their supply chains by adjusting partner choices (Dai et al., 2021), reallocating trade away from problematic suppliers (Bisetti et al., 2024), or even terminating supplier relationships (Schiller, 2018). These findings also raise the question of whether institutional investors play a role in shaping such reactions.

Leveraging our unique dataset, we examine these questions as an extension of our discussion on engagement triggers. We find that the asset manager is more likely to engage with portfolio firms following ESG incidents involving their suppliers. While prior evidence highlights the transmission of ESG failures from suppliers to customers, no evidence suggests that the reverse happens. Indeed, Dai et al. (2021) show that while corporate customers affect the ESG performance of their suppliers, the reverse effect is not significant. As a placebo test, we examine whether the asset manager also responds to customer ESG controversies and find no such evidence. Taken together, these results suggest that the asset manager monitors implicit ESG threats along the supply chain and responds through engagement. Our findings also indicate that institutional investors may be one force influencing how corporate customers respond to supply chain ESG issues.

As the final part of our research, we examine whether engagement is associated with higher shareholder value in our setting and, if so, through what channels. Using the same matched-sample design, we find that engaged firms outperform their peers by about 3.3 percentage points in buy-and-hold abnormal returns over the twelve months following engagement. We also document significant improvements in firms' ESG performance following engagement, whether the performance is measured based on firm-reported or external information. Lastly, we find that engagement is followed by stronger sales growth, but no material decline in several implied cost-of-capital measures, despite increased ownership by sustainability-focused investors. Taken together, the evidence suggests that the higher firm value associated with engagement is more likely to stem from improved cash flows rather than a lower discount rate.

2 Related Literature

Our research is most related to literature on shareholder engagement concerning ESG issues. This stream of research lies within the broader literature on shareholder activism that either explicitly aims to address ESG issues or affect them indirectly, including hedge fund activism (Akey and Appel, 2019; Chu and Zhao, 2019), shareholder proposals (Flammer et al., 2021; Naaraayanan et al., 2021), the threat to exit (Gantchev et al., 2022; Saint-Jean, 2024), voting (He et al., 2023; Lowry et al., 2025; Schmidt et al., 2024; Saint-Jean, 2024), and public campaigns (Gormley et al., 2023), in addition to engagement. Because engagement typically takes the form of letters, private meetings, or dialogues, which are largely unobservable (McCahery et al., 2016; Krueger et al., 2020; Becht et al., 2009), existing studies usually identify it indirectly through activist ownership (Kahn et al., 2023; Azar et al., 2021), via natural or field experiments (Becht et al., 2023; Heeb and Kölbel, 2024), or using proprietary records from specific institutional investors or institutions (Dimson et al., 2015; Bauer et al., 2023; Barko et al., 2022; Hoepner et al., 2024; Derrien et al., 2024a; Dimson et al., 2025). Much of the engagement literature has concentrated on engagement outcomes. For example, the seminal work by Dimson et al. (2015) shows that engagement is associated with positive market reactions and subsequent improvements in financial performance, institutional ownership, and corporate governance. Later studies find that engagement improves ESG performance (Barko et al., 2022; Becht et al., 2023), reduces downside risk (Hoepner et al., 2024), stimulates corporate climate initiatives (Derrien et al., 2024a), and is associated with lower carbon emissions (Azar et al., 2021). Bauer et al. (2023) highlight that engagement targeting financially material issues are more likely to succeed and bring about positive financial outcomes. Dimson et al. (2025) study coordinated engagement and highlight the crucial role of a team leader in ensuring engagement success and positive outcomes.

In contrast, we focus on the determinants of engagement. Current research found that the targeted firms often differ from non-targeted firms in features such as size, ownership structure, stakes of focal investors, financial performance, discretionary spending, capital structure, and ESG profiles (Dimson et al., 2015; Barko et al., 2022; Derrien et al., 2024a; Azar et al., 2021). We contribute to these findings by documenting a new and important trigger of engagement decisions. While these characteristics help explain the cross-sectional differences between engagement and non-engaged firms, our research shows that the timing of engagement decisions are largely driven by ESG incidents, which have a stronger explanatory power than

many documented firm attributes. Our work thus highlights the incident-driven nature of engagement decisions. Notably, a contemporaneous study by Derrien et al. (2024a) shows that climate-related incidents trigger climate-focused engagement. While their analysis focuses only on climate-related issues, we adopt a broader ESG perspective and propose informational updating and reputational accountability as the underlying rationale for this response. Relatedly, Schmidt et al. (2024) document that active mutual fund investors employ both voice and exit to manage ESG risks after experiencing ESG scandals in their portfolio firms. Whereas they treat portfolio-wide ESG scandals as belief shocks for the investor and focus on voting as the channel of voice, we study how investors respond to firm-specific ESG incidents through private engagement, driven by reputational pressure and informational updating.

Our research is also related to the growing literature on the various consequences of ESG incidents. Prior studies document that such incidents are associated with negative market reactions (Krüger, 2015; Yun, 2024), downward revisions of earnings forecasts by financial analysts (Derrien et al., 2024b), and lower demand from customers (Duan et al., 2024; Houston et al., 2024). Firms also adjust their operations after experiencing such events by increasing investment in reputation-repairing activities (Akey et al., 2024), appointing directors with charitable backgrounds (Gertsberg et al., 2024), adjusting managerial compensation (Kuang et al., 2025), or increasing communications with the public on social media (Pu et al., 2024). While this stream of research highlights the implications of ESG incidents for market prices, analyst forecasts, consumer demand, and corporate strategies, our study shows that such events also affect institutional investors' monitoring behavior, thereby providing new evidence on the role of ESG incidents in shaping external governance.

Finally, our research is related to recent studies on the propagation of ESG accountability. Prior work shows that ESG failures can transmit to economically linked entities, such as corporate customers along the supply chain, and impose negative consequences on them (Lin et al., 2024). Firms downstream in the supply chain have been shown to respond to such threats by assortative matching (Dai et al., 2021), reducing business with problematic partners (Bisetti et al., 2024), or even terminating relationships altogether (Schiller, 2018). We contribute to this literature by documenting that institutional investors monitor ESG threats along the supply chain and are one potential force behind corporate customers' responses to supply chain ESG issues. Beyond the supply chain, Duevski et al. (2024) find that ESG failures can spill over to investors themselves, for example by impairing funds' ability to raise capital. Building on this insight, our evidence suggests that institutional investors react to such threats by enforcing

greater monitoring of their portfolio firms involved in ESG incidents.

3 Data

3.1 Engagement Data

The engagement data come from the internal records of a major European asset management company. The firm has a long-standing commitment to sustainable investing, with approximately 75% of its assets under management being ESG-aligned or in sustainable strategies. The asset manager practices active ownership to promote sustainable business conduct among portfolio firms through direct engagement, proxy voting, and exclusion policies.

The asset manager conducts engagements on behalf of all its funds. The engagement dataset offers comprehensive and detailed records of its engagement activities from January 2010 to March 2023. Over this period, the asset manager recorded 1,802 engagements involving 1,220 firms worldwide. Each engagement record contains detailed information such as the target firm, relevant ESG issues, main objectives, initiation date, collaboration status, and engagement outcome. Each engagement typically consists of a series of activities that may span several years. For each activity, the dataset records the date and the specific engagement approach used. It also records the personnel contacted within the target firm throughout the whole process.

Figure 1 presents the number of engagements by year, disaggregated by ESG category. Most engagements occurred after 2016, although few occurred in 2017. Governance engagements represent the largest share, while environmental and social engagements have increased in recent years. Figure 2(a) shows that the asset manager most frequently engages with firms in the Materials, Energy, and Capital Goods sectors. According to Figure 2(b), while the asset manager engages firms globally, the majority of engagements are concentrated in the United States, followed by Japan, Sweden, and Germany. Table A.2 illustrates the thematic focus of ESG engagements. Governance remains the most common category, followed by environmental and social issues. The asset manager places particular emphasis on four main topics: Good Governance, Climate, Human Rights, and Biodiversity. At a more granular level, the most frequently addressed sub-topics include transparency, greenhouse gas (GHG) emissions, and human rights.

Table 1 summarizes other engagement characteristics. Approximately 40% of engagements are conducted internally by the asset manager, and around 37% turned out to be successful.[4] On

[4]In fact, 40% of the observations have missing values in the engagement result field. Among the non-missing observations, 37% are classified as successful, 3.6% as neutral, 8.8% as "None," and 10.4% as unsuccessful.

average, each engagement comprises 1.43 actions. The average duration between the creation of an engagement and its last recorded action is about 15 months. In terms of engagement approaches, written communication is the most frequently used, with letters involved in 47% of cases and emails in 12%. Another common approach is digital meetings, which account for 21% of engagements. Direct approaches such as meetings (2%) and phone calls (3%) are less prevalent. Although the data on personnel contacted are rather incomplete, they indicate that a range of company representatives are involved, most frequently investor relations (3%) and CEOs (2%).

The original engagement dataset contains an internally generated ID for each firm and provides a mapping table between these firm IDs and ISINs. Since most of our analysis relies on the FactSet database, we use the FactSet security identifier (*fsym_id*) as the primary identifier for the engagement data. To enable this, we rely on a one-to-one linking table between ISINs and *fsym_id*s from FactSet. Using this table, we identify all possible *fsym_id*s associated with each firm ID via its ISINs. With this approach, 152 engagement observations could not be automatically matched to any *fsym_id*. For the remaining unmatched cases, a research assistant manually identified the corresponding *fsym_id* by searching firm names in the FactSet universe. Matched results from these two sources are combined together. We retain only those *fsym_id*s designated as the primary security ID by FactSet and manually ensure that each firm is linked to a single *fsym_id*. Through this whole process, we successfully identify *fsym_id*s for 1,137 unique firms (93.2%) involved in 1,713 engagement cases (95.1%).

3.2 ESG Incident and ESG Sentiment Data

We obtain data on ESG incidents from RepRisk, a data provider that tracks ESG-related incidents. RepRisk screens a broad range of public sources in 23 languages on a daily basis to identify such incidents. It covers over 290,000 public and private companies globally and starts from 2007. Each incident is categorized into environmental, social, governance, or cross-cutting issues, and further classified into 28 specific ESG topics. The database also includes assessments of each incident's severity, influence, and recency in relation to the affected firm. This allows us to construct firm-level measures of ESG incident frequency. A more detailed description of the dataset is provided in Derrien et al. (2024b).

We use ESG sentiment data from the FactSet Truvalue SASB Scores dataset. It leverages machine learning and natural language processing to assess the semantic content of millions of third-party media articles related to firms' ESG practices on a daily basis and covers both positive

and negative events. As such, the data offers a comprehensive view of firm ESG behavior from an external perspective. Compared to measures based on self-reported information, the reliance on third-party sources enhances objectivity. Focusing on the semantic analysis of external texts, the Truvalue methodology helps mitigate the well-documented inconsistency across ESG ratings from different providers (Berg et al., 2022). The high-frequency nature of the data also allows us to track real-time changes in firms' ESG performance.

Truvalue provides two types of sentiment scores. The *Pulse* score is a short-term measure that reflects real-time reactions to new events and updates instantaneously as new information emerges. The *Insight* is a smoothed version of the *Pulse* score, designed to capture longer-term ESG sentiment. Both scores are reported for each of the 26 ESG issues defined by SASB. In addition, the dataset provides an overall score that reflects sentiment on all 26 issues, and a "material overall score" that reflects sentiment on ESG issues considered financially material to a firm's industry by SASB. Both the *Pulse* score and the *Insight* score range from 0 to 100, with 50 indicating neutral sentiment, values above 50 indicating positive sentiment, and values below 50 indicating negative sentiment. The dataset starts from 2007 and covers a broad range of public and private firms globally. For our analysis, we use the daily *Pulse* score to quantify the impact of ESG incidents and the *Insight* score at the end of each month as a measure of ESG performance based on external information. The Truvalue data also provides the number of ESG-related articles for each firm over a trailing window of 12 months, which we use to measure a firm's media exposure.

3.3 Financial Data

Institutional ownership data are obtained from the FactSet Ownership database. This database also provides data on fund holdings, which allows us to identify the asset manager's portfolio firms. To obtain the portfolio firms, we first search among all funds covered by FactSet for those that are either managed by the asset manager, have the asset manager's name in the fund family name, or include the asset manager's name in the fund name. This yields 608 unique funds. We then retrieve monthly holdings for these funds from January 2009 to December 2023. Among those holdings, we retain only those classified as equities. The final holding list contains 7,737 unique securities in total and an average of 2,528 unique securities at the end of each month. The FactSet Ownership database also reports the list of institutional holders and their positions in each security at the end of each quarter. We use this data to aggregate the asset manager's holdings in individual securities on a quarterly basis.

Monthly returns of global stocks are provided by Jensen et al. (2023).[5] The authors calculate returns using CRSP stock return data and Compustat stock price data, with all prices converted to USD using exchange rates from Compustat. Following the authors' suggestion, we retain only primary securities, common stocks, and stocks listed on major exchanges, with a preference for CRSP-based returns. Market returns are computed as the value-weighted average of all securities in each country, with firm market values winsorized at the NYSE 80th percentile. Daily returns involved in the event study are obtained from CRSP and Compustat.

Estimates of global implied cost of capital (ICC) are obtained from Eskildsen et al. (2024). The dataset provides security-level ICC estimates on a monthly basis using analyst forecasts from IBES and stock price data from CRSP and Compustat.[6] It provides ICC measures based on four widely used models: Gebhardt et al. (2001), Claus and Thomas (2001), Easton (2004), and Ohlson and Juettner-Nauroth (2005). When both CRSP- and Compustat-based estimates are available for a security, we prioritize the CRSP-based estimate.

Firm financial data are obtained from Compustat. Information on firms' suppliers and customers is obtained from the FactSet Revere Supply Chain Relationship database. ESG ratings are from Refinitiv, which is now named LSEG.

4 ESG Incidents and Engagement Decisions

4.1 Method

Following prior literature (Dimson et al., 2015; Brav et al., 2008; Barko et al., 2022), we match the engaged firm in each engagement observation with up to five non-engaged portfolio firms that are most similar in terms of market-to-book (MB) ratio and firm size, within the same industry and headquarter country. We first standardize the MB ratio and firm size across the Compustat universe by subtracting the sample mean and dividing by the sample standard deviation, so that each variable has a mean of 0 and a standard deviation of 1. We then calculate the Euclidean distance between the engaged firm and all other firms in the same industry and country within the asset manager's portfolio at the end of the month preceding the engagement, based on financial data from the year prior to engagement. For each engagement observation, we then retain up to five firms with the smallest Euclidean distance. We require both the engaged firm

[5] The dataset is available on WRDS via the "Global Stock Returns and Characteristics" query form. It is also accessible at: https://jkpfactors.com/factor-returns. We thank the authors for generously sharing their data.

[6] The data can be accessed at: https://sites.google.com/view/theis-ingerslev-jensen/data. We thank the authors for generously sharing their data.

and potential matches to have non-missing values for all four matching criteria. Each matched firm is assigned the same engagement date and ESG category as the engagement case to which it is matched. This procedure yields a matched sample of 6,396 observations. Industries are defined at the industry group level of the Global Industry Classification Standard (GICS).

We then merge the matched sample with firm financial and ESG rating data from the year preceding the engagement, ownership data at the end of the previous quarter of the engagement, and the number of ESG incidents that happened within the three months prior to the engagement. We exclude observations with missing or abnormal values in key variables.[7] The final regression sample contains 5,102 observations.

$$Engagement_{i,t} = \beta_0 + \beta_1 \cdot Number\ of\ Incidents_{i,t} + \boldsymbol{\beta}_2 \cdot \boldsymbol{X}_{i,t-1} + \lambda_{j,t} + \eta_{c,t} + \varepsilon_{i,t} \qquad (1)$$

To investigate the effects of ESG incidents on engagement decisions, we estimate the above cross-sectional regression model, in which i indicates firms, t indicates year-months, j indicates industries, and c indicates countries. The dependent variable, $Engagement_{i,t}$, is a dummy that equals to 1 if firm i was engaged in month t, and 0 otherwise. The key independent variable, $Number\ of\ Incidents_{i,t}$, is the logarithm of one plus the total number of ESG incidents that occurred within the three months preceding month t.

$\boldsymbol{X}_{i,t-1}$ is a set of control variables measured in the previous period of month t. Due to differences in data frequency, the timing of these variables varies. Specifically, *Size*, *Market-to-Book Ratio*, *Sales Growth*, *ROA*, *Leverage*, *Cash Holdings*, *Capital Expenditure*, and *Refinitiv ESG Score* are measured at the last year of month t, while *Institutional Ownership* and *Asset Manager Ownership* are measured at the last quarter of month t. Detailed definitions of all control variables are provided in Table 3. We include industry-by-month fixed effects ($\lambda_{j,t}$) and country-by-month fixed effects ($\eta_{c,t}$) throughout our analysis. These fixed effects allow for comparisons among firms within the same industry or the same country at a given point in time. They also control for time-varying industry- or country-specific shocks that may simultaneously affect ESG incidents and engagement decisions. All continuous variables except stock returns are winsorized at the 1% and 99% levels. Standard errors are clustered at the industry-by-month level.

[7] Specifically, we drop observations with a negative market-to-book ratio due to negative values of *Common/Ordinary Equity – Total (ceq)* in the Compustat database. This affects 138 observations. We also cap institutional ownership at 1, which affects 198 observations.

Panel A of Table 2 presents summary statistics for the key regression variables. Due to our matching approach, 22% observations are engaged. On average, the sample firms experience 0.69 ESG incidents over the past three months. When disaggregated by ESG category, firms experience an average of 0.24 environmental incidents, 0.37 social incidents, and 0.31 governance incidents. Institutional investors hold 61% of firm shares on average, whereas the focal asset manager has a relatively small stake in its portfolio firms, with an average ownership of 0.25%.

4.2 Results

Table 3 presents the regression results. Column (1) shows that ESG incidents significantly increase the likelihood of engagement. Columns (2) to (4) present subsample analyses by engagement type and show that incidents in each ESG category are positively associated with the likelihood of the corresponding type of engagement. The estimates also suggest potentially economically meaningful effects. In Column (1), a one-standard-deviation increase in the number of ESG incidents over the past three months (0.79) raises the probability of engagement by approximately 10 percentage points, or about 46% of the sample mean (0.22). However, we note that the analysis is based on a linear probability model, which allows for the inclusion of multiple fixed effects but may yield predicted probabilities outside the [0,1] range. In addition, the estimated level of economic significance may vary with the number of matched control firms per engagement, making direct interpretation less straightforward. To better assess the relative importance of ESG incidents, we benchmark its effect against other covariates.

The benchmarking results in Table 4 continue to indicate that ESG incidents are among the most influential predictors of engagement. Column (1) shows that their economic significance ranks just below firm size (90%). Another notable variable is asset manager ownership (36%), followed by leverage (25%), market-to-book ratio (20%), ROA (15%), and capital expenditure (13%), whereas cash holdings, sales growth, institutional ownership, and ESG rating have relatively modest effects. Column (2) to (4) further suggest a non-trivial effect for each kind of environmental, social, and governance incidents. Specifically, environmental incidents rank third in importance after firm size and asset manager ownership; social incidents rank second, following only firm size; and governance incidents rank fifth, below firm size, leverage, asset manager ownership, and market-to-book ratio.

4.3 Robustness

Since we estimate a cross-sectional regression, it is difficult to control for firm fixed effects, raising the concern that we might be capturing spurious correlations due to firm-specific unobserved factors. To address this concern, we conduct several robustness checks. First, we estimate a combined model in which each type of environmental, social, or governance engagement is regressed on all three categories of incidents. As shown in Table 5, engagements are generally most responsive to incidents in the corresponding ESG category. In particular, environmental engagements are primarily associated with environmental incidents, and a similar pattern holds for social engagements. Although governance engagements also respond to environmental incidents, the overall alignment across ESG domains suggests that the main effects capture a meaningful effect of incidents on engagement rather than reflecting pure spurious correlations.

We also examine the dynamic effects of ESG incidents by regressing the engagement indicator on the number of incidents occurring in each of the past twelve months. The results, reported in Figure A.1 in the Appendix, show no strong patterns of dynamic effects. There is some indication that incidents may matter more in the few months immediately preceding an engagement, but the month-by-month estimates are noisy, likely because incidents across months are highly correlated. We therefore interpret these results cautiously.

A particular concern is that our results may be confounded by firms' past ESG performance. Firms with weaker historical ESG profiles are more likely to experience incidents, and the asset manager may simply be targeting such firms based on their track record rather than on the incidents themselves. In this case, the observed correlation between ESG incidents and engagement could largely reflect past ESG performance. We argue, however, that ESG incidents have distinct implications for engagement that are not fully captured by conventional ESG performance measures. ESG ratings from major providers update infrequently and mainly reflect historical information, whereas incidents can arise suddenly and may reveal weaknesses even in firms with high ESG ratings. To account for this, we include firm ESG ratings in all specifications, and our results show that ESG incidents continue to play a significant role in explaining engagement decisions, highlighting their unique role in driving engagement decisions.

5 Engagement Motivation

This section examines the motivations behind engagement decisions. We first quantify the impact of ESG incidents and then conduct heterogeneity analyses to identify the cases in which

the asset manager is more likely to engage.

5.1 Quantifying the Impact of ESG Incidents

To understand what ESG incidents imply for firms, we examine how they affect public perceptions of a firm's ESG profile. For this purpose, we use ESG sentiment data from the FactSet Truvalue SASB Scores dataset. Specifically, we rely on the *Pulse* score, a real-time measure of the semantic content of external information about a firm's ESG practices generated through machine learning and natural language processing applied to daily third-party information. We focus on the overall measure of ESG dimensions that are deemed financially material to each firm's industry by SASB, referred to as the *Material Pulse Score*.

We then plot the average *Material Pulse Score* of sample firms involved in ESG incidents from 60 days before to 60 days after the incident date. As a benchmark, we repeat the analysis by replacing actual incident dates with randomly assigned dates between January 1, 2007 and December 31, 2023. The final sample includes 167,440 incidents out of 174,800 incidents (96%) involving the sample firms from 2007 to 2023. Figure 3 shows a significant decline in ESG sentiment around actual incident dates, whereas no such decline appears around pseudo event dates, indicating that incidents indeed lower public perceptions of firms' ESG practices.

5.2 Reputational Accountability

In this section, we try to examine whether the reputational concern of the asset manager drives engagement. If so, the asset manager should be more responsive to incidents at firms that are highly visible to the public, where potential reputational damage is greater. To test this hypothesis, we conduct heterogeneity analyses based on two proxies for firm visibility: firm size and media exposure. For media exposure, we use data on the number of ESG-related media reports referencing each firm provided in the FactSet Truvalue SASB Scores database. To mitigate concerns that article volume may be mechanically correlated with recent ESG incidents, we calculate the average number of annual articles for each firm from 2007 to 2022. We then interact the number of ESG incidents with each visibility proxy. We expect the interaction terms to be significantly positive.

Table 6 presents the results. Column (1) indicates that the asset manager is indeed more likely to engage with larger firms following ESG incidents: conditional on the same number of ESG incidents, a one-standard-deviation increase in firm size (1.37) is associated with a 4-percentage-point higher probability of engagement. Notably, Derrien et al. (2024b) find that the

negative impact of ESG incidents on firm value is more pronounced among smaller firms. This suggests that the observed heterogeneity is unlikely to be solely driven by differences in financial risk, but is instead more consistent with the reputational concern explanation. Column (2) further suggests that the asset manager is more responsive to ESG incidents at firms with greater media exposure: conditional on the same number of ESG incidents, a one-standard-deviation increase in the article number (1.67) is associated with a 4-percentage-point higher probability of engagement. Taken together, these heterogeneity results provide supporting evidence that reputational concerns are one motivation behind the asset manager's engagement decisions.

5.3 Informational Updating

We next examine the informational updating channel. If ESG incidents trigger engagement by providing new information about firms' ESG weaknesses, the response should be stronger when incidents are more informative. Such informativeness is likely higher for firms that were previously perceived to have good ESG performance. We use two measures of prior ESG perceptions. The first is the *Refinitiv ESG Score*, which primarily reflects firm-reported information. The second is the *Material Insight Score* from the FactSet Truvalue SASB dataset, a smoothed version of the high-frequency *Pulse* score. It captures longer-term ESG sentiment based on external information sources. We then interact the number of ESG incidents with either the *Refinitiv ESG Score* from the fiscal year prior to engagement or the *Material Insight Score* measured 12 months before the engagement.

Columns (3) and (4) of Table 6 report the results. We find that the asset manager is indeed more likely to engage firms that were previously viewed to have a better performance on ESG issues, regardless of whether the performance is measured based on firm-reported information or external information. Conditional on the same number of incidents, a one-standard-deviation increase in the *Refinitiv ESG Score* (0.18) is associated with a 3.8 percentage-point higher probability of engagement, while a one-standard-deviation increase in the *Material Insight Score* (0.13) is associated with a 2.9 percentage-point increase. These findings provide supporting evidence that incidents trigger engagement by revealing new information about firms' ESG performance.

6 Supply Chain Incidents and Engagement Decisions

Recent research highlights the growing importance of supplier ESG performance for corporate customers. Customers have been shown to exert influence over their suppliers' ESG practices (Dai et al., 2021; Schiller, 2018). Moreover, ESG controversies involving suppliers can prompt customers to reduce purchases (Bisetti et al., 2024) or even terminate the relationship (Schiller, 2018). Such responses are justified by both academic and anecdotal evidence indicating that supplier ESG controversies can impose either financial or reputational costs on corporate customers (Lin et al., 2024).[8]

Current research implies that investors may play a role in shaping corporate customers' concerns over supply chain ESG performance. For example, Bisetti et al. (2024) find that customers reduce imports from suppliers involved in environmental or social (E&S) incidents, especially when their investor base is more likely to be E&S-conscious. However, there is little direct evidence on whether, and through which channels, institutional investors actively influence such decisions. We leverage our unique dataset to examine whether investors monitor and respond to ESG issues along the supply chains of their portfolio firms to provide this evidence.

While prior work documents how ESG failures of suppliers may affect corporate customers, there is no such evidence for the reverse effect. This unilateral pattern is consistent with research showing that while corporate customers can affect the ESG performance of their suppliers, the reverse is not true (Dai et al., 2021). Given this asymmetry, we therefore examine whether ESG incidents occurring at corporate customers trigger engagement with their suppliers, and we expect to find no such effects.

Panel A of Table 7 presents the results for supplier-related ESG incidents. Column (1) shows that the asset manager is indeed more likely to engage with a firm when there were more incidents at its suppliers. The effects exist after we control for firms' own incidents. Columns (2) to (4) suggest that the results are especially driven by environmental incidents. Panel B reports the results for customer-related incidents. Across all specifications, we find no evidence that ESG incidents involving customers influence the probability of engagement. Overall, these results indicate that the asset manager's monitoring of ESG incidents goes beyond focal firms and extends to their suppliers. They also suggest that investors may be an important shaping force behind firms' concerns over supply chain ESG issues, with engagement serving as one

[8]For example, Nike has faced criticism over labor rights violations within its supply chain. Reuters, 2024. Similarly, JBS, a Brazilian meatpacking company, has been publicly criticized for deforestation linked to its cattle supply chain. Reuters, 2020.

channel of influence.

7 Engagement and Firm Value

In this section, we examine whether and how engagement is associated with firm value. Prior research documents various effects of engagement on financial performance, risk profiles, and ESG outcomes, but because those studies rely on data from different asset managers, it is not clear whether the same patterns hold in our setting. More importantly, there remains limited evidence on the specific channels through which engagement relates to firm value. We therefore analyze the association between engagement and firm value in our data, and further examine whether any such association is linked to improved cash flows or a reduced discount rate.

$$\Delta Outcome_{i,t} = \beta_0 + \beta_1 \cdot Engagement_{i,t} + \boldsymbol{\beta}_2 \cdot \boldsymbol{X}_{i,t-1} + \lambda_{j,t} + \eta_{c,t} + \varepsilon_{i,t} \tag{2}$$

We estimate the above cross-sectional regression model to compare changes in firm outcomes between engaged and matched non-engaged firms following engagement. The sample includes each engagement observation along with its matched non-engaged counterparts, as described in Section 4.1. The dependent variable is the change in various firm outcomes over different horizons after engagement, relative to their levels prior to engagement. The key independent variable is a dummy indicating whether the firm was engaged. Control variables and fixed effects are specified as in Equation (1) and detailed in Table 3. Standard errors are clustered at the industry-by-month level. Since prior research suggests that ESG incidents may adversely affect firm performance, we additionally include them as controls in the regression. By selecting matched firms from within the asset manager's portfolio, we mitigate concerns that differences in stock returns or other firm outcomes simply reflect the asset manager's stock selection.

7.1 Buy-and-hold Abnormal Returns

We begin by analyzing buy-and-hold abnormal returns (BHAR) following the engagement. We focus on long-term performance rather than conducting an event study around the engagement date for two reasons. First, many engagements could be conducted privately and may not be immediately observable to the market. Second, engagements typically involve a series of actions that take place over a long period of time. Therefore, their impact is more likely to be reflected in long-run stock performance.

$$BHAR[1M,\ TM]_{i,t} = \prod_{k=1}^{T}(1 + R_{i,t+k}) - \prod_{k=1}^{T}(1 + R_{m,t+k}) \tag{3}$$

BHAR is calculated as the compounded stock return over a given horizon minus the compounded market return over the same period, as shown in the equation above, where $R_{i,t}$ denotes the return of stock i in month t, and $R_{m,t}$ represents the market return in month t. In the regression analysis, we include lagged stock returns to control for momentum and reversal effects. By further controlling for a range of firm characteristics, we mitigate concerns that differences in stock performance between engaged and non-engaged firms are simply driven by the asset manager's propensity to engage with firms that are more or less likely to perform well.

Table 8 presents the regression results. After controlling for firm characteristics, past returns, and industry-by-month and country-by-month fixed effects, we find that engaged firms outperform non-engaged firms in the months following the engagement. The outperformance grows as we extend the time horizon and becomes statistically significant when the period reaches twelve months. This pattern is consistent with the idea that it may take time for the market to learn engagement-related information or for the engagement itself to begin having an effect, especially since one engagement typically lasts for several months. The magnitude is also economically meaningful. Column (4) shows that engaged firms outperform non-engaged firms by 3.3 percentage points over the twelve months following engagement. Taken together, the results suggest that engagement is indeed associated with improved firm value.

7.2 ESG Performance

The improvement in firm value may result from either an increased cash flow or a reduced discount rate. Previous research suggests that enhanced ESG performance could be the underlying mechanism through which engagement relates to higher firm value, as a better ESG performance could be associated with both an increased cash flow and a reduced discount rate. For example, previous research suggests that a better ESG performance could lead to a higher cash flow by increasing firm sales. This is because customers have been found to prefer products by firms with better ESG performance (Duan et al., 2024; Houston et al., 2024). ESG performance could also lower firm discount rate by attracting investors with sustainability preferences. This channel has been illustrated by both theoretical models (e.g., Pástor et al., 2021; Luo and Balvers, 2017) and empirical studies (e.g., Hong and Kacperczyk, 2009; Chava, 2014; Eskildsen et al., 2024).

To understand through which channel engagement relates to firm value, we first examine

whether firms have a better ESG performance following engagement. We use two ESG performance measures. First, we use external, perception-based ESG performance measures from the FactSet Truvalue SASB Scores dataset. These scores are constructed using machine learning and natural language processing techniques that analyze the semantic content of millions of third-party media articles related to firms' ESG practices. Compared to traditional ESG ratings from various data vendors, Truvalue offers higher-frequency measures that capture real-time changes in ESG performance. Its reliance on external media sources enhances objectivity, expands firm coverage, and avoids the well-documented inconsistencies across ESG ratings (Berg et al., 2022). In contrast to incident data from RepRisk, which primarily captures negative events, Truvalue incorporates both positive and negative ESG events, enabling a more comprehensive assessment of public discourse around a firm's ESG performance. This distinction is important because engagement may generate favorable media coverage that would be missed by negative-event-only datasets like RepRisk. We focus on the *Material Insight Score*, which provides a longer-term assessment of performance on ESG issues deemed financially material by SASB for each industry. Second, we use the *Refitiv ESG Score*, which relies more on firm-reported ESG information.

Table 9 presents the results. Panel A reports the effect of engagement on the *Material Insight Score*, while Panel B shows the results for the *Refinitiv ESG Score*. We find that firms exhibit better ESG performance following engagement, regardless of whether performance is measured with firm-reported or external information. For example, Column (4) shows that twelve months after engagement, the *Material Insight Score* of engaged firms increases by 1.9 percentage points more than for matched non-engaged firms, while Column (5) shows a 1.9 percentage point increase in the *Refinitiv ESG Score* by the next year of engagement. These findings suggest that engagement is associated with improvements in firms' ESG performance, particularly on issues most relevant to their industries, providing a plausible channel through which engagement may contribute to higher firm value.

7.3 Cash Flow vs. Discount Rate

We next examine whether there is a higher cash flow or a lower discount rate, which potentially explain where the improvement in firm value stems from. To assess the cash flow channel, we focus on firm sales. Table 10 shows that engaged firms experience stronger sales growth in the years following engagement. The effects are also economically meaningful. Columns (1) to (3) indicate that engaged firms exhibit sales growth that is 2.8, 5.0, and 6.9 percentage points higher than matched firms in the engagement year, the first year after engagement, and the second year

after engagement, respectively. These findings suggest that part of the improvement in firm value following engagement may be driven by enhanced firm cash flows.

To assess the discount rate channel, we focus on firm implied cost of capital (ICC). Specifically, we analyze ICC measures calculated based on four different models: Gebhardt et al. (2001) (ICC_GLS), Claus and Thomas (2001) (ICC_CT), Easton (2004) (ICC_PEG), and Ohlson and Juettner-Nauroth (2005) (ICC_OJ). For each measure, we compare the percentage change in ICC for engaged firms over various post-engagement horizons, relative to matched non-engaged firms. Table 11 presents the results. Across all four ICC measures and time windows, we find no evidence that engagement leads to a greater reduction in ICC for engaged firms.

Although we find no direct evidence supporting the discount rate channel, we further examine there's a significant change in firm's ownership base. Following Ilhan et al. (2023), we construct three measures of socially responsible institutional ownership. The first, *Universal Inst. Own.*, refers to ownership by universal investors, defined as those who hold the largest number of portfolio stocks (top 1% across all institutions at the end of a given quarter). Universal investors are considered socially responsible because their broad holdings make them more exposed to externalities, thereby giving them stronger incentives to internalize ESG risks. The second measure, *Stewardship Inst. Own*, captures ownership by institutions based in countries that passed any stewardship codes, which aim to promote responsible investing practices. The third, *High-Norm Inst. Own*, reflects ownership by institutions headquartered in countries with an above-median Environmental Performance Index score, used by Dyck et al. (2019) as a proxy for stronger environmental norms.

Table 12 presents the results. We find that engagement is associated with a greater increase in overall institutional ownership. According to Column (4) in the upper panel, institutional ownership in engaged firms rises by an additional 1.5 percentage points relative to non-engaged firms four quarters after engagement. We also observe a stronger increase in socially responsible ownership. For example, Column (8) in the upper panel shows that *Universal Inst. Own.* increases by 3 percentage points more for engaged firms, while Column (8) in the lower panel shows a roughly 2-percentage-point greater increase in *High-NormInst. Own.* These findings indicate that engaged firms do attract more institutional investors, particularly those with a stronger focus on sustainability. However, the magnitude of these increases may not be sufficient to significantly reduce the firm's cost of capital. Taken together, the evidence suggests that improved cash flows, rather than a reduced discount rate, may be the primary channel through which engagement is associated with firm value.

8 Conclusion

This paper examines when and why institutional shareholders engage their portfolio firms on ESG issues. Using a proprietary dataset of ESG engagements from a European asset manager, we show that external salient events are among the most powerful triggers for engagement when benchmarked against firm characteristics. We further find that investors respond to such incidents because these events put the investors' ESG reputation under pressure and reveal new information about firm ESG failures, especially for firms perceived as strong ESG performers. In addition, we document that investors' monitoring of ESG issues extends beyond focal firms to their suppliers, with engagement used to address supply chain ESG issues. Finally, we show that engagement is associated with improved firm value, enhanced ESG performance, and stronger cash flows.

While prior research on ESG engagement has largely emphasized its outcomes, our study contributes by highlighting an important determinant of engagement decisions. We also extend the growing literature on the consequences of ESG incidents by showing their effect on external corporate governance, namely the active monitoring of firms by institutional investors through private engagement. Finally, we contribute to recent work on the transmission of ESG failures and the propagation of ESG accountability by demonstrating that investors actively monitor ESG issues along the supply chain and respond to them through engagement, providing direct evidence that investor pressure is one force shaping firms' concern over supply chain ESG issues.

One potential limitation of our setting is generalizability, as our analysis focuses on a single asset manager with a pronounced ESG orientation. However, the growing scale of responsible investment suggests that the focal asset manager may be representing a broader and broader segment of the investment community. For example, the number of signatories to the Principles of Responsible Investment reached 5,345 as of 31 March 2024, collectively managing USD 128.4 trillion in assets.[9] As of August 2025, over 600 investors have joined Climate Action 100+, a collaborative initiative to engage systemically important emitters. Moreover, leading global asset managers, such as BlackRock, now routinely publish stewardship reports detailing their engagement priorities and activities, including various ESG topics.[10] These trends indicate that the findings we document are likely to extend to a broadening set of institutional investors.

[9] Source: PRI Annual Report 2024

[10] See, for example, BlackRock Investment Stewardship

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9 Figures

Figure 1: Number of Engagements by Year

This figure plots the number of engagement records initiated each year, disaggregated by environmental, social, and governance categories.

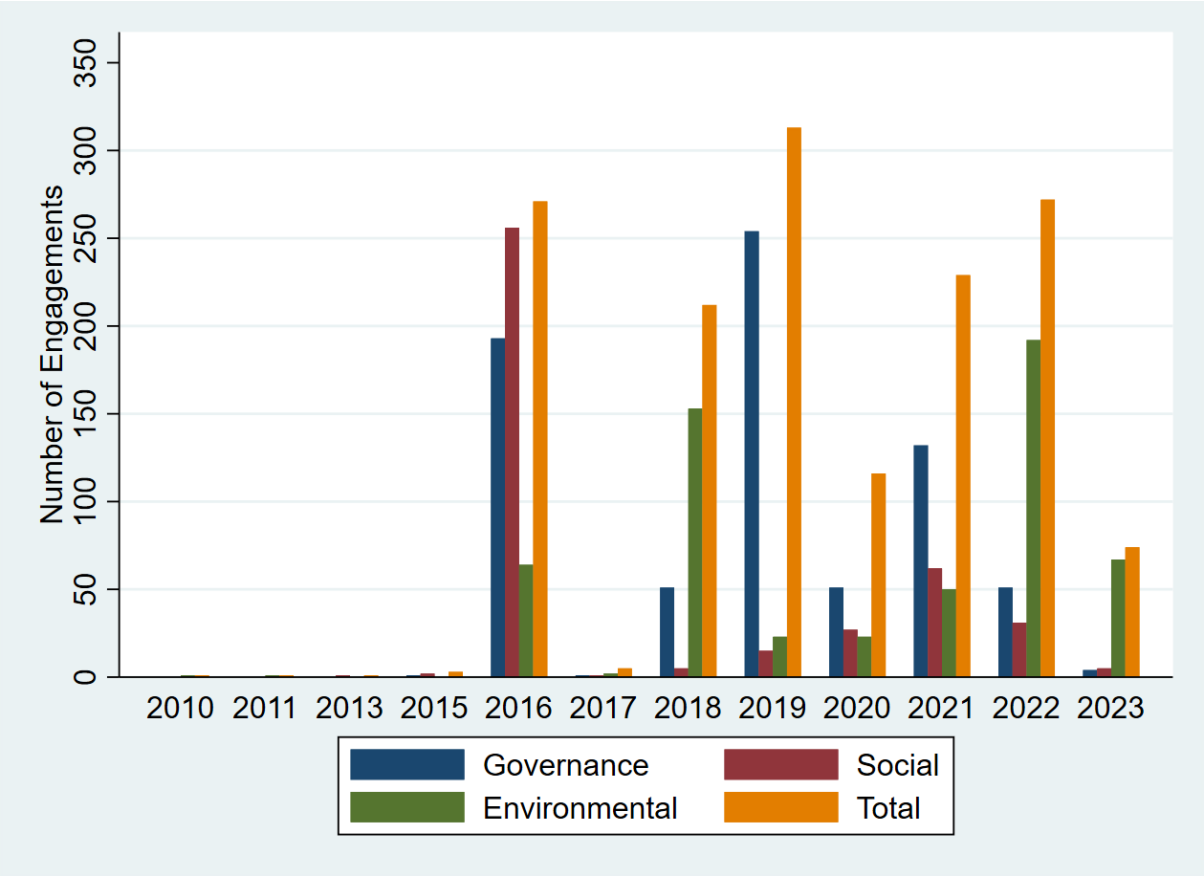
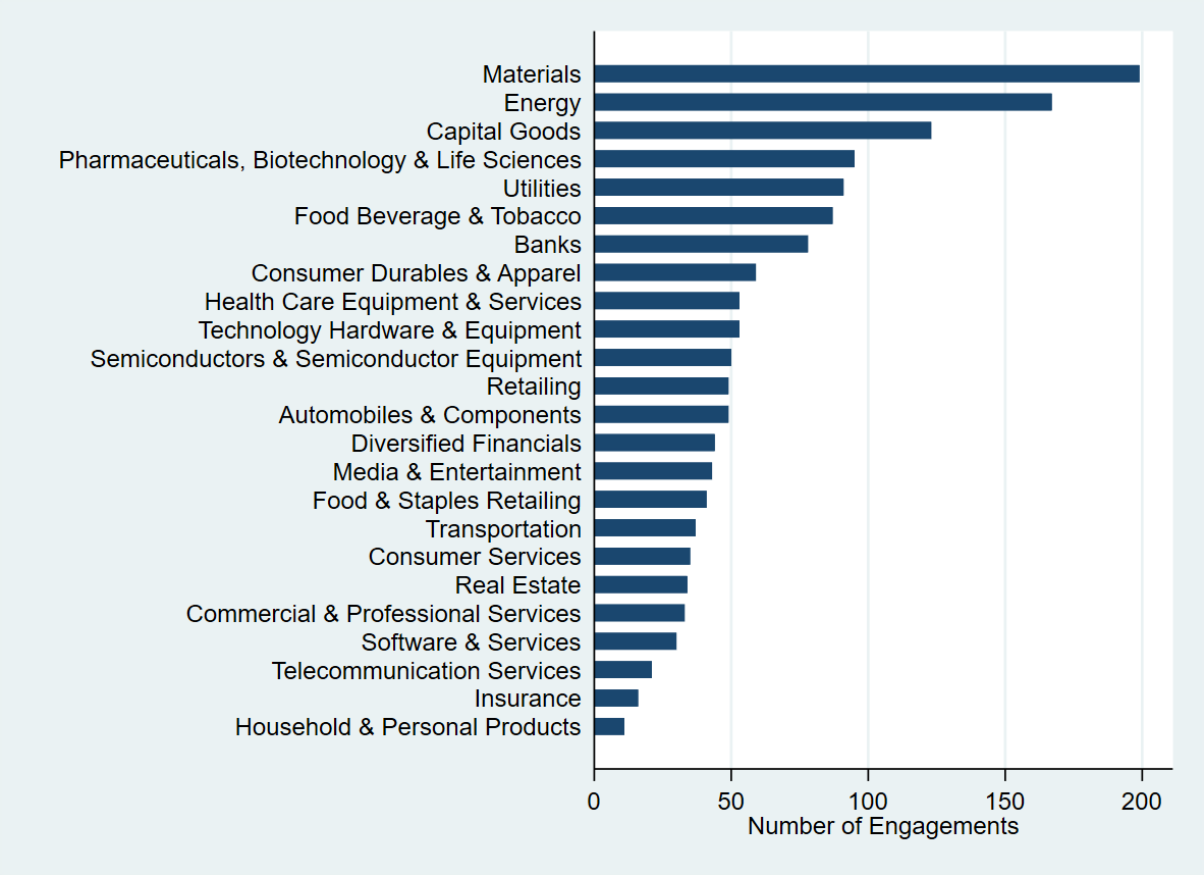
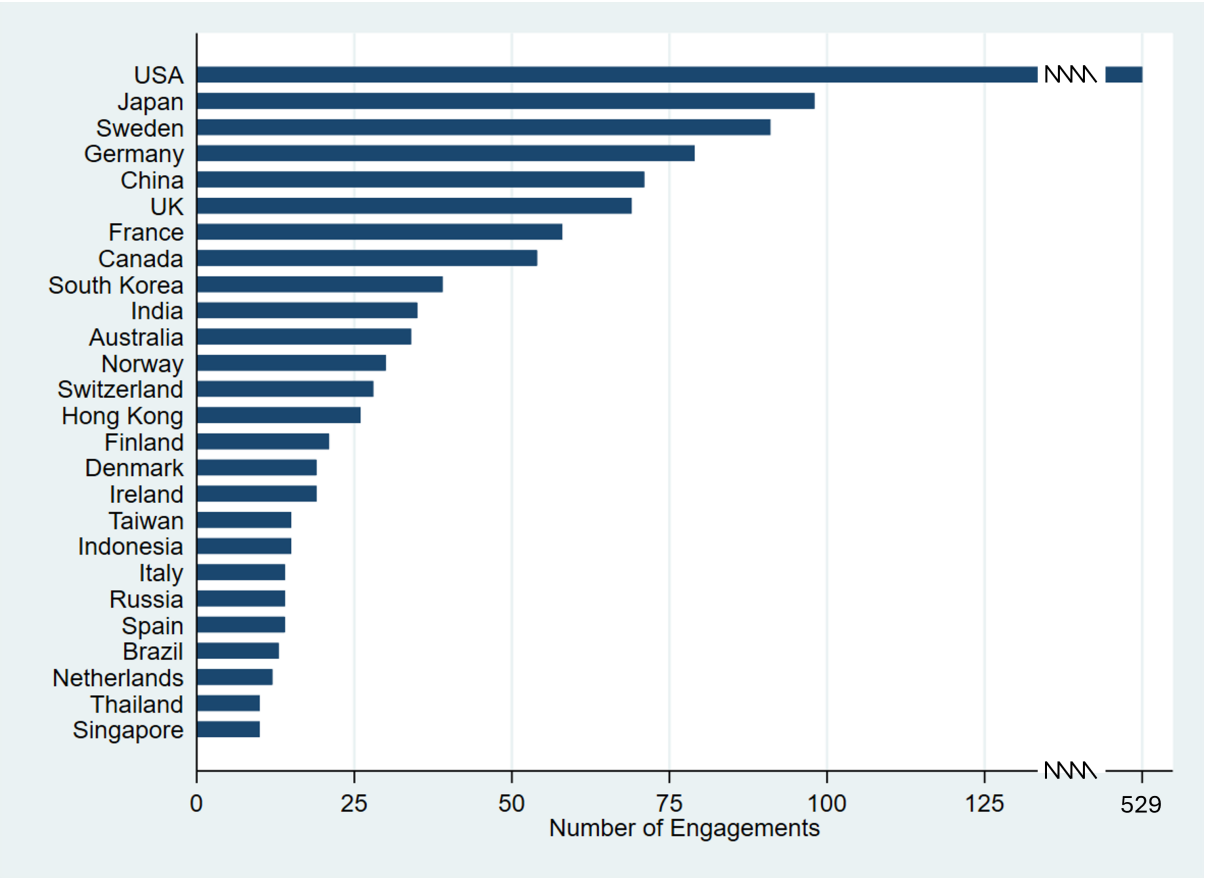


Figure 2: Number of Engagements by Industry and Country/Region

This figure shows the number of engagement records by industries and countries. Subfigure (a) shows the number of engagement records by GICS industry group. Subfigure (b) shows the number of engagement records by headquarters country or region, including only those with at least 10 engagements.



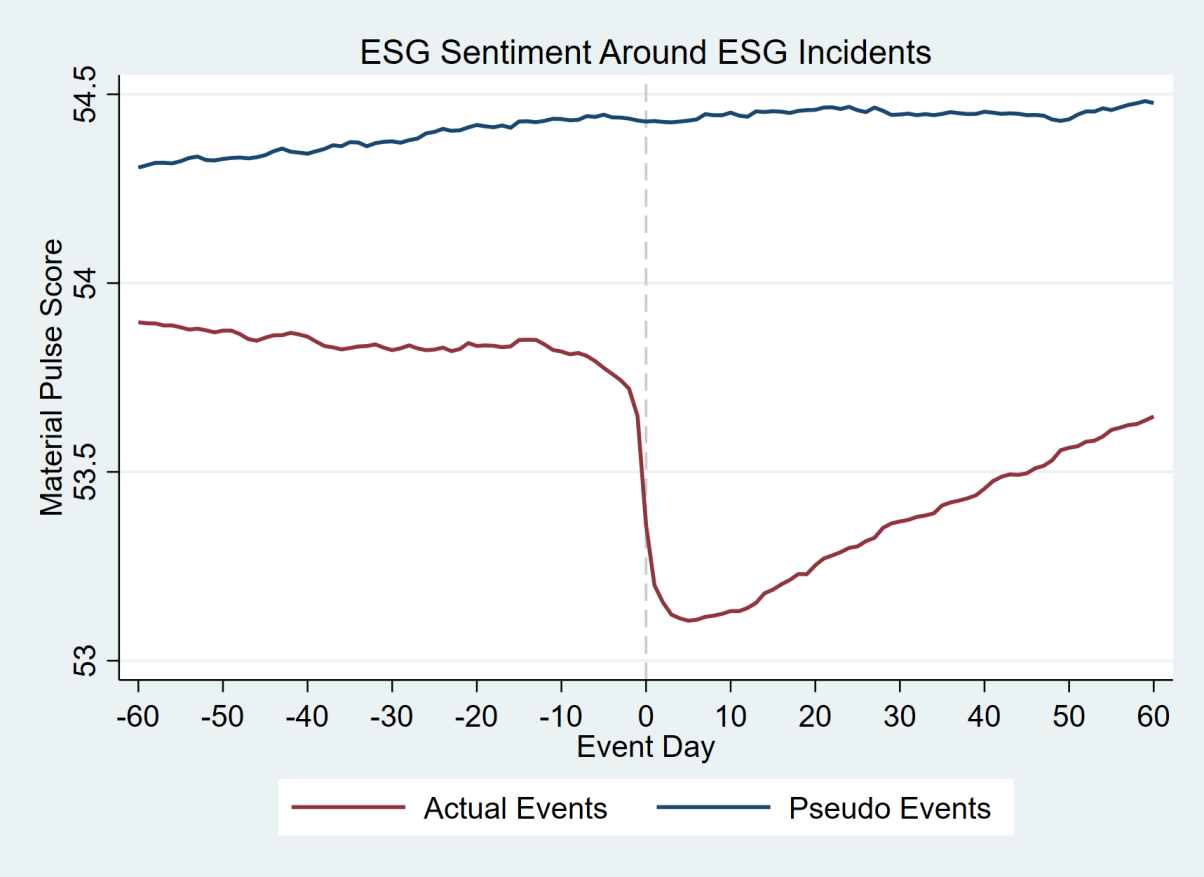
(a) Number of Engagements by Industry (GICS2)



(b) Number of Engagements by Country or Region

Figure 3: ESG Sentiment Around ESG Incidents

This figure shows the average material pulse score of sample firms around ESG incidents, covering event days -60 to +60, with day 0 indicating the incident date. The red line represents actual incidents, while the blue line depicts scores around randomly assigned pseudo-event dates.



10 Tables

Table 1: Engagement Characteristics

This table reports key characteristics of each engagement record. *Internal* is a dummy variable equal to one if the engagement was conducted solely by the asset manager, and zero if conducted collaboratively with other institutions. *Success* equals one if the engagement was recorded as successful, and zero if recorded as neutral, none, unsuccessful, or missing. *Number of Engagement Actions* denotes the total number of follow-up actions taken after the engagement was initiated. *Months btw. Creation & Last Action* is the number of months between the creation of the engagement and its final recorded action. *Approach: [Type]* and *Contact: [Type]* are indicators for whether the specified approach or contact category was involved throughout the engagement.

	N	Mean	SD	P25	P50	P75	Min	Max
Internal	1,498	0.3965	0.49	0.00	0.00	1.00	0.00	1.00
Successful	1,498	0.3725	0.48	0.00	0.00	1.00	0.00	1.00
Number of Engagement Actions	1,498	1.4319	1.08	1.00	1.00	2.00	0.00	14.00
Months btw. Creation & Last Action	1,291	14.8544	20.84	0.00	3.00	20.00	0.00	117.00
Approach: Meeting	1,498	0.0247	0.16	0.00	0.00	0.00	0.00	1.00
Approach: Conference	1,498	0.0007	0.03	0.00	0.00	0.00	0.00	1.00
Approach: Site visit	1,498	0.0027	0.05	0.00	0.00	0.00	0.00	1.00
Approach: Phone call	1,498	0.0327	0.18	0.00	0.00	0.00	0.00	1.00
Approach: Letter	1,498	0.4713	0.50	0.00	0.00	1.00	0.00	1.00
Approach: E-mail	1,498	0.1248	0.33	0.00	0.00	0.00	0.00	1.00
Approach: Shareholder voting	1,498	0.0013	0.04	0.00	0.00	0.00	0.00	1.00
Approach: Digital meeting	1,498	0.2069	0.41	0.00	0.00	0.00	0.00	1.00
Approach: Shareholder resolution	1,498	0.0020	0.04	0.00	0.00	0.00	0.00	1.00
Approach: Other	1,498	0.2377	0.43	0.00	0.00	0.00	0.00	1.00
Contact: CEO	1,498	0.0234	0.15	0.00	0.00	0.00	0.00	1.00
Contact: CFO	1,498	0.0033	0.06	0.00	0.00	0.00	0.00	1.00
Contact: CSR	1,498	0.0053	0.07	0.00	0.00	0.00	0.00	1.00
Contact: IR	1,498	0.0327	0.18	0.00	0.00	0.00	0.00	1.00
Contact: Board	1,498	0.0033	0.06	0.00	0.00	0.00	0.00	1.00
Contact: Senior management	1,498	0.0040	0.06	0.00	0.00	0.00	0.00	1.00
Contact: Operational management	1,498	0.0007	0.03	0.00	0.00	0.00	0.00	1.00
Contact: Sustainability dept.	1,498	0.0100	0.10	0.00	0.00	0.00	0.00	1.00
Contact: Human Resources	1,498	0.0007	0.03	0.00	0.00	0.00	0.00	1.00
Contact: Corporate secretary	1,498	0.0020	0.04	0.00	0.00	0.00	0.00	1.00

Table 2: Summary Statistics

This table reports the summary statistics of all variables used in the analysis. Panel A summarizes key regression variables, and Panel B presents engagement outcome variables. Detailed variable definitions are provided in Appendix A.

Variable	N	Mean	SD	P25	P50	P75	Min	Max
Panel A: Key Regression Variables								
Engagement	5,102	0.2225	0.42	0.00	0.00	0.00	0.00	1.00
Ln Own Incidents in [-3, -1]	5,102	0.5257	0.79	0.00	0.00	0.69	0.00	3.26
Ln Own E Incidents in [-3, -1]	5,102	0.2185	0.49	0.00	0.00	0.00	0.00	2.20
Ln Own S Incidents in [-3, -1]	5,102	0.3151	0.60	0.00	0.00	0.69	0.00	2.64
Ln Own G Incidents in [-3, -1]	5,102	0.2676	0.54	0.00	0.00	0.00	0.00	2.48
Ln Customer Incidents in [-3, -1]	2,733	1.5496	1.07	0.69	1.54	2.26	0.00	3.97
Ln Customer E Incidents in [-3, -1]	2,733	0.8198	0.86	0.00	0.69	1.29	0.00	3.74
Ln Customer S Incidents in [-3, -1]	2,733	1.0281	0.86	0.29	0.94	1.61	0.00	3.25
Ln Customer G Incidents in [-3, -1]	2,733	0.9488	0.80	0.22	0.83	1.47	0.00	2.94
Ln Supplier Incidents in [-3, -1]	2,339	1.3302	1.12	0.41	1.20	2.08	0.00	4.40
Ln Supplier E Incidents in [-3, -1]	2,339	0.6297	0.75	0.00	0.34	1.10	0.00	2.94
Ln Supplier S Incidents in [-3, -1]	2,339	0.9144	0.93	0.00	0.69	1.44	0.00	3.77
Ln Supplier G Incidents in [-3, -1]	2,339	0.8375	0.84	0.00	0.69	1.34	0.00	3.31
Size	5,102	9.1932	1.37	8.40	9.16	10.03	4.23	13.36
Market-to-book	5,102	5.0146	7.57	1.61	2.70	4.93	0.33	53.20
Sales Growth	5,102	0.1340	0.26	0.01	0.07	0.19	-0.40	1.67
ROA	5,102	0.1291	0.08	0.08	0.12	0.16	-0.13	0.39
Leverage	5,102	0.4030	0.23	0.24	0.41	0.57	0.00	0.91
Cash Holding	5,102	0.1277	0.14	0.03	0.08	0.17	0.00	0.68
Capital Expenditure	5,102	0.0447	0.04	0.02	0.03	0.06	0.00	0.19
Institutional Own.	5,102	0.6090	0.29	0.34	0.69	0.87	0.03	1.00
Asset Manager Own.	5,102	0.0025	0.01	0.00	0.00	0.00	0.00	0.07
Refinitiv ESG Score	5,102	0.5634	0.18	0.44	0.58	0.70	0.15	0.90
TV Material Insight	4,639	0.5815	0.13	0.50	0.59	0.68	0.22	0.90
Ret in -1M	4,781	-0.0089	0.10	-0.07	-0.01	0.04	-0.51	0.85
Ret in [-12M, -1M]	4,704	0.0870	0.41	-0.17	0.03	0.26	-0.90	4.34
Ln Article Number	5,089	3.4374	1.67	2.20	3.37	4.55	0.00	7.67
Panel B: Engagement Outcomes								
BHAR [1M, 3M]	4,765	0.0002	0.16	-0.09	-0.01	0.08	-0.71	2.71
BHAR [1M, 6M]	4,736	0.0076	0.23	-0.12	-0.01	0.11	-0.86	3.11
BHAR [1M, 9M]	4,714	0.0025	0.27	-0.15	-0.02	0.14	-0.82	4.64
BHAR [1M, 12M]	4,532	-0.0034	0.33	-0.20	-0.04	0.15	-1.06	5.33
ΔSales_0Y	4,965	0.1149	0.23	-0.00	0.07	0.18	-0.40	1.24
ΔSales_1Y	4,536	0.1844	0.39	-0.01	0.10	0.29	-0.65	2.08

Continued on next page

Table 2: Summary Statistics (continued)

Variable	N	Mean	SD	P25	P50	P75	Min	Max
ΔSales_2Y	3,591	0.2402	0.47	-0.00	0.15	0.37	-0.63	2.87
ΔICC_GLS_3M	3,550	0.0169	0.16	-0.07	-0.00	0.09	-0.33	0.83
ΔICC_GLS_6M	3,224	0.0287	0.27	-0.11	0.00	0.12	-0.59	1.43
ΔICC_GLS_9M	2,859	0.0403	0.30	-0.12	0.00	0.14	-0.64	1.40
ΔICC_GLS_12M	2,775	0.0237	0.33	-0.16	-0.02	0.14	-0.67	1.42
ΔICC_PEG_3M	2,265	0.0069	0.20	-0.10	-0.01	0.10	-0.52	0.79
ΔICC_PEG_6M	2,078	0.0035	0.25	-0.15	-0.02	0.11	-0.53	0.90
ΔICC_PEG_9M	1,852	0.0028	0.28	-0.17	-0.03	0.14	-0.57	0.98
ΔICC_PEG_12M	1,778	-0.0094	0.30	-0.20	-0.04	0.12	-0.62	1.15
ΔICC_CT_3M	2,550	0.0215	0.27	-0.15	-0.01	0.15	-0.63	1.25
ΔICC_CT_6M	2,320	0.0273	0.38	-0.20	-0.04	0.18	-0.67	1.79
ΔICC_CT_9M	2,096	0.0413	0.44	-0.23	-0.01	0.20	-0.75	2.06
ΔICC_CT_12M	2,051	0.0386	0.49	-0.28	-0.02	0.22	-0.74	2.24
ΔICC_OJ_3M	2,145	0.0045	0.19	-0.11	-0.01	0.10	-0.44	0.64
ΔICC_OJ_6M	1,973	0.0150	0.27	-0.15	-0.01	0.13	-0.51	1.19
ΔICC_OJ_9M	1,762	0.0255	0.31	-0.17	-0.00	0.16	-0.59	1.37
ΔICC_OJ_12M	1,688	0.0300	0.36	-0.20	-0.00	0.16	-0.66	1.76
ΔInstitutional Own._1Q	4,410	0.0102	0.08	-0.02	0.01	0.04	-0.32	0.44
ΔInstitutional Own._2Q	4,288	0.0110	0.10	-0.02	0.01	0.04	-0.35	0.48
ΔInstitutional Own._3Q	3,889	0.0166	0.13	-0.03	0.01	0.05	-0.44	0.64
ΔInstitutional Own._4Q	3,748	0.0157	0.14	-0.03	0.01	0.05	-0.52	0.76
ΔUniversal Inst. Own._1Q	4,408	0.0281	0.15	-0.03	0.01	0.07	-0.41	1.09
ΔUniversal Inst. Own._2Q	4,286	0.0455	0.18	-0.03	0.03	0.10	-0.42	1.30
ΔUniversal Inst. Own._3Q	3,887	0.0746	0.25	-0.03	0.04	0.13	-0.53	1.80
ΔUniversal Inst. Own._4Q	3,746	0.0887	0.26	-0.02	0.05	0.16	-0.57	1.72
ΔStewardship Inst. Own._1Q	4,406	0.0621	0.28	-0.02	0.01	0.06	-0.43	2.53
ΔStewardship Inst. Own._2Q	4,284	0.0718	0.31	-0.02	0.01	0.07	-0.45	3.23
ΔStewardship Inst. Own._3Q	3,885	0.1148	0.49	-0.03	0.02	0.10	-0.58	5.38
ΔStewardship Inst. Own._4Q	3,744	1.5932	4.05	-0.02	0.03	0.37	-0.55	25.03
ΔHigh-Norm Inst. Own._1Q	4,410	0.0084	0.09	-0.02	0.01	0.03	-0.35	0.52
ΔHigh-Norm Inst. Own._2Q	4,288	0.0099	0.10	-0.02	0.01	0.04	-0.39	0.58
ΔHigh-Norm Inst. Own._3Q	3,889	0.0140	0.13	-0.03	0.01	0.05	-0.52	0.71
ΔHigh-Norm Inst. Own._4Q	3,748	0.0130	0.15	-0.03	0.01	0.05	-0.57	0.82
ΔTV Material Insight_3M	4,782	0.0011	0.08	-0.04	0.00	0.04	-0.26	0.28
ΔTV Material Insight_6M	4,752	0.0088	0.12	-0.05	0.00	0.06	-0.34	0.47
ΔTV Material Insight_9M	4,736	0.0159	0.15	-0.06	0.01	0.08	-0.40	0.59
ΔTV Material Insight_12M	4,710	0.0251	0.18	-0.07	0.01	0.09	-0.40	0.74
ΔRefinitiv ESG Score_1Y	4,604	0.1176	0.23	-0.02	0.05	0.19	-0.24	1.17

Table 3: ESG Incidents and Engagement Probability: Main Results

This table reports the effects of ESG incidents on engagement probability. The dependent variable is a dummy that equals 1 if a firm was engaged in a given month and 0 otherwise. *Ln Own Incidents in [-3, -1]* is the logarithm of one plus the number of ESG incidents within the past three months. *Ln Own E Incidents in [-3, -1]*, *Ln Own S Incidents in [-3, -1]*, and *Ln Own G Incidents in [-3, -1]* are the logarithm of one plus the number of environmental, social, and governance incidents within the past three months, respectively. See Appendix A for definitions of other variables. Column (1) uses the full sample of engagements, regardless of category. Columns (2) focuses on environmental engagements, Columns (3) examines social engagements, and Columns (4) analyzes governance engagements. Standard errors clustered at the industry-by-month level are reported in parentheses. * p<.10; ** p<.05; *** p<.01.

	Any Kinds	Environ.	Social	Govern.
	(1)	(2)	(3)	(4)
Ln Own Incidents in [-3, -1]	0.129***			
	(0.017)			
Ln Own E Incidents in [-3, -1]		0.205***		
		(0.038)		
Ln Own S Incidents in [-3, -1]			0.167***	
			(0.044)	
Ln Own G Incidents in [-3, -1]				0.110***
				(0.029)
Size	0.145***	0.145***	0.175***	0.178***
	(0.013)	(0.019)	(0.025)	(0.017)
Market-to-book	0.006***	0.003**	0.006**	0.009***
	(0.001)	(0.001)	(0.002)	(0.002)
Sales Growth	0.001	-0.030	0.027	0.054
	(0.032)	(0.039)	(0.081)	(0.051)
ROA	0.417**	0.348	0.463*	0.442**
	(0.177)	(0.309)	(0.275)	(0.179)
Leverage	-0.240***	-0.083	-0.250**	-0.364***
	(0.050)	(0.060)	(0.111)	(0.059)
Cash Holding	0.129*	0.044	0.309**	0.249***
	(0.070)	(0.134)	(0.145)	(0.091)
Capital Expenditure	0.764**	0.714	0.612	1.117***
	(0.361)	(0.701)	(0.695)	(0.382)
Institutional Own.	0.033	0.021	0.083	0.033
	(0.048)	(0.071)	(0.118)	(0.070)
Asset Manager Own.	11.282***	16.799***	2.908	10.563***
	(1.472)	(3.956)	(2.808)	(1.733)
Refinitiv ESG Score	0.017	0.067	0.081	0.080
	(0.057)	(0.103)	(0.114)	(0.070)
Industry × Month FE	✓	✓	✓	✓
Country × Month FE	✓	✓	✓	✓
Observations	5,102	1,922	1,354	2,557
R^2	0.33	0.36	0.36	0.33

Table 4: ESG Incidents and Engagement Probability: Economic Significance

The table reports the economic significance of each variable, based on the estimates from Table 3. Economic significance is calculated as the estimated coefficient multiplied by the standard deviation of the variable, divided by the mean value of engagement. See Appendix A for variable definitions. Column (1) uses the full sample of engagements, regardless of category. Columns (2) focuses on environmental engagements, Columns (3) examines social engagements, and Columns (4) analyzes governance engagements.

	Any Kinds	Environ.	Social	Govern.
	(1)	(2)	(3)	(4)
Ln Own Incidents in [-3, -1]	45.67%			
Ln Own E Incidents in [-3, -1]		45.06%		
Ln Own S Incidents in [-3, -1]			45.36%	
Ln Own G Incidents in [-3, -1]				26.76%
Size	89.55%	89.55%	108.07%	109.93%
Market-to-book	20.46%	10.23%	20.46%	30.69%
Sales Growth	0.12%	-3.57%	3.21%	6.42%
ROA	14.80%	12.35%	16.43%	15.69%
Leverage	-24.54%	-8.49%	-25.56%	-37.22%
Cash Holding	7.90%	2.70%	18.93%	15.25%
Capital Expenditure	12.77%	11.93%	10.23%	18.67%
Institutional Own.	4.34%	2.76%	10.92%	4.34%
Asset Manager Own.	35.52%	52.89%	9.16%	33.26%
Refinitiv ESG Score	1.37%	5.40%	6.53%	6.45%

Table 5: ESG Incidents and Engagement Probability: Combined Model

This table reports the effects of ESG incidents on engagement probability using a combined model. The dependent variable is a dummy that equals 1 if a firm was engaged in a given month and 0 otherwise. *Ln Own E Incidents in [-3, -1]*, *Ln Own S Incidents in [-3, -1]*, and *Ln Own G Incidents in [-3, -1]* are the logarithm of one plus the number of environmental, social, and governance incidents within the past three months, respectively. Control variables include *Size*, *Market-to-book*, *Sales Growth*, *ROA*, *Leverage*, *Cash Holding*, *Capital Expenditure*, *Institutional Own.*, *Asset Manager Own.*, and *Refinitiv ESG Score*. See Appendix A for variable definitions. Column (1) focuses on environmental engagements, Column (2) examines social engagements, and Column (3) analyzes governance engagements. Standard errors clustered at the industry-by-month level are reported in parentheses. * p<.10; ** p<.05; *** p<.01.

	Environ.	Social	Govern.
	(1)	(2)	(3)
Ln Own E Incidents in [-3, -1]	0.202***	0.055	0.105*
	(0.049)	(0.082)	(0.054)
Ln Own S Incidents in [-3, -1]	-0.018	0.141**	0.039
	(0.038)	(0.058)	(0.037)
Ln Own G Incidents in [-3, -1]	0.040	-0.006	0.045
	(0.051)	(0.049)	(0.035)
Industry × Month FE	✓	✓	✓
Country × Month FE	✓	✓	✓
Control Variables	Yes	Yes	Yes
Observations	1,922	1,354	2,557
R^2	0.37	0.36	0.34

Table 6: ESG Incidents and Engagement Probability: Heterogeneity

This table reports the heterogeneous effects of ESG incidents on engagement probability across firm size and firm media exposure. The dependent variable is a dummy that equals 1 if a firm was engaged in a given month and 0 otherwise. *Ln Own Incidents in [-3, -1]* is the logarithm of one plus the number of ESG incidents within the past three months. *Size* is defined as ln(1+Total Assets (USD)). *Ln Article Number* is the logarithm of one plus the average number of ESG-related articles a firm received annually between 2007 and 2022. *Refinitiv ESG Score* is the ESG score from Refinitiv divided by 100. *TV Material Insight* is the material *Insight* score from the the FactSet Truvalue SASB Scores dataset divided by 100. Control variables include *Size*, *Market-to-book*, *Sales Growth*, *ROA*, *Leverage*, *Cash Holding*, *Capital Expenditure*, *Institutional Own.*, *Asset Manager Own.*, and *Refinitiv ESG Score*. See Appendix A for variable definitions. Standard errors clustered at the industry-by-month level are reported in parentheses. * p<.10; ** p<.05; *** p<.01.

	(1)	(2)	(3)	(4)
Ln Own Incidents in [-3, -1] × Size	0.032***			
	(0.007)			
Ln Own Incidents in [-3, -1] × Ln Article Number		0.026***		
		(0.006)		
Ln Own Incidents in [-3, -1] × Refinitiv ESG Score			0.209***	
			(0.069)	
Ln Own Incidents in [-3, -1] × TV Material Insight				0.226**
				(0.103)
Industry × Month FE	✓	✓	✓	✓
Country × Month FE	✓	✓	✓	✓
Control Variables	Yes	Yes	Yes	Yes
Observations	5,102	5,088	5,102	4,611
R^2	0.34	0.34	0.34	0.34

Table 7: Supply Chain Incidents and Engagement Probability

This table reports the effects of supply chain ESG incidents on engagement probability. The dependent variable is a dummy that equals 1 if a firm was engaged in a given month and 0 otherwise. *Ln Supplier Incidents in [-3, -1]* is the logarithm of one plus the average number of ESG incidents involving a firm's suppliers over the past three months. *Ln Supplier E Incidents in [-3, -1]*, *Ln Supplier S Incidents in [-3, -1]*, and *Ln Supplier G Incidents in [-3, -1]* are the logarithm of one plus the average number of suppliers' environmental, social, and governance incidents within the past three months, respectively. *Ln Customer Incidents in [-3, -1]*, *Ln Customer E Incidents in [-3, -1]*, *Ln Customer S Incidents in [-3, -1]*, and *Ln Customer G Incidents in [-3, -1]* are the logarithm of one plus the average number of customers' ESG, environmental, social, and governance incidents within the past three months, respectively. Control variables include *Size*, *Market-to-book*, *Sales Growth*, *ROA*, *Leverage*, *Cash Holding*, *Capital Expenditure*, *Institutional Own.*, *Asset Manager Own.*, *Refinitiv ESG Score*, and the number of a firm's own incidents in the corresponding category. See Appendix A for variable definitions. Column (1) uses the full sample of engagements, regardless of category. Column (2) focuses on environmental engagements, Column (3) examines social engagements, and Column (4) analyzes governance engagements. Standard errors clustered at the industry-by-month level are reported in parentheses. * p<.10; ** p<.05; *** p<.01.

Panel A: Supplier Incidents

	Any Kinds	Environ.	Social	Govern.
	(1)	(2)	(3)	(4)
Ln Supplier Incidents in [-3, -1]	0.029**			
	(0.014)			
Ln Supplier E Incidents in [-3, -1]		0.084***		
		(0.027)		
Ln Supplier S Incidents in [-3, -1]			-0.007	
			(0.031)	
Ln Supplier G Incidents in [-3, -1]				0.024
				(0.025)
Industry × Month FE	✓	✓	✓	✓
Country × Month FE	✓	✓	✓	✓
Control Variables	Yes	Yes	Yes	Yes
Observations	2,251	843	572	1,140
R^2	0.43	0.48	0.51	0.43

Panel B: Customer Incidents

	Any Kinds	Environ.	Social	Govern.
	(1)	(2)	(3)	(4)
Ln Customer Incidents in [-3, -1]	0.001			
	(0.012)			
Ln Customer E Incidents in [-3, -1]		-0.018		
		(0.031)		
Ln Customer S Incidents in [-3, -1]			-0.020	
			(0.035)	
Ln Customer G Incidents in [-3, -1]				-0.007
				(0.022)
Industry × Month FE	✓	✓	✓	✓
Country × Month FE	✓	✓	✓	✓
Control Variables	Yes	Yes	Yes	Yes
Observations	2,653	1,063	661	1,266
R^2	0.41	0.46	0.42	0.39

Table 8: Engagement and Buy-and-hold Abnormal Returns

This table reports the effects of ESG engagement on buy-and-hold abnormal returns (BHAR): $BHAR[1M,\ TM]_{i,t} = \beta_0 + \beta_1 \cdot Engagement_{i,t} + \boldsymbol{\beta_2} \cdot \boldsymbol{X}_{i,t-1} + \lambda_{j,t} + \eta_{c,t} + \varepsilon_{i,t}$. The sample includes each engagement observation and its matched non-engaged firms. The dependent variables are BHARs measured over different horizons following month t: $BHAR[1M,\ TM]_{i,t} = \prod_{k=1}^{T}(1 + R_{i,t+k}) - \prod_{k=1}^{T}(1 + R_{m,t+k})$, where $R_{i,t}$ is the return of stock i in month t, and $R_{m,t}$ is the market return in month t. *Engagement* is a dummy that equals 1 if a firm was engaged in a given month and 0 otherwise. Control variables include *Size*, *Market-to-book*, *Sales Growth*, *ROA*, *Leverage*, *Cash Holding*, *Capital Expenditure*, *Institutional Own.*, *Asset Manager Own.*, *Refinitiv ESG Score*, *Ln Own Incidents in [-3, -1]*, *Ret in -1M*, and *Ret in [-12M, -1M]*. See Appendix A for variable definitions. Standard errors clustered at the industry-by-month level are reported in parentheses. * p<.10; ** p<.05; *** p<.01.

	BHAR			
	(1) [1M, 3M]	(2) [1M, 6M]	(3) [1M, 9M]	(4) [1M, 12M]
Engagement	0.011	0.015	0.022	0.033*
	(0.009)	(0.011)	(0.014)	(0.020)
Industry × Month FE	✓	✓	✓	✓
Country × Month FE	✓	✓	✓	✓
Control Variables	Yes	Yes	Yes	Yes
Observations	4,669	4,654	4,632	4,448
R^2	0.31	0.31	0.30	0.32

Table 9: Engagement and ESG Performance

This table reports the effects of ESG engagement on ESG performance: $\Delta ESG\ Performance_{i,t} = \beta_0 + \beta_1 \cdot Engagement_{i,t} + \boldsymbol{\beta_2} \cdot \boldsymbol{X}_{i,t-1} + \lambda_{j,t} + \eta_{c,t} + \varepsilon_{i,t}$. The sample includes each engagement observation and its matched non-engaged firms. The dependent variables in Columns (1)–(4) are the percentage changes in the *Material Insight Score* from FactSet Truvalue SASB Scores at the end of months 3, 6, 9, and 12 following the engagement month, relative to its value at the end of the month prior to engagement. The dependent variable in Column (5) is the percentage change in the *Refinitiv ESG Score* at the end of the year following engagement, relative to its value at the end of the year preceding engagement. *Engagement* is a dummy that equals 1 if a firm was engaged in a given month and 0 otherwise. Control variables include *Size*, *Market-to-book*, *Sales Growth*, *ROA*, *Leverage*, *Cash Holding*, *Capital Expenditure*, *Institutional Own.*, *Asset Manager Own.*, *Refinitiv ESG Score*, and *Ln Own Incidents in [-3, -1]*. See Appendix A for variable definitions. Standard errors clustered at the industry-by-month level are reported in parentheses. * p<.10; ** p<.05; *** p<.01.

	ΔTV Material Insight				Δ Refinitiv ESG Score
	(1) 3M	(2) 6M	(3) 9M	(4) 12M	(5) 1Y
Engagement	0.015***	0.013*	0.014	0.019	0.019*
	(0.005)	(0.008)	(0.009)	(0.011)	(0.010)
Industry × Month FE	✓	✓	✓	✓	✓
Country × Month FE	✓	✓	✓	✓	✓
Control Variables	Yes	Yes	Yes	Yes	Yes
Observations	4,762	4,732	4,717	4,691	4,594
R^2	0.16	0.17	0.16	0.16	0.46

Table 10: Engagement and Cash Flow

This table reports the effects of ESG engagement on cash flow measures: $\Delta Cash\ Flow_{i,t} = \beta_0 + \beta_1 \cdot Engagement_{i,t} + \boldsymbol{\beta}_2 \cdot \boldsymbol{X}_{i,t-1} + \lambda_{j,t} + \eta_{c,t} + \varepsilon_{i,t}$. The sample includes each engagement observation and its matched non-engaged firms. The dependent variables in Columns (1), (2), and (3) are the ratio changes in *Sales* at the end of years 0, 1, and 2 following the engagement year, relative to its absolute value at the end of the previous year. *Engagement* is a dummy that equals 1 if a firm was engaged in a given month and 0 otherwise. Control variables include *Size*, *Market-to-book*, *Sales Growth*, *ROA*, *Leverage*, *Cash Holding*, *Capital Expenditure*, *Institutional Own.*, *Asset Manager Own.*, *Refinitiv ESG Score*, and *Ln Own Incidents in [-3, -1]*. See Appendix A for variable definitions. Standard errors clustered at the industry-by-month level are reported in parentheses. * p<.10; ** p<.05; *** p<.01.

	ΔSales		
	(1) 0Y	(2) 1Y	(3) 2Y
Engagement	0.028**	0.050**	0.069**
	(0.011)	(0.021)	(0.032)
Industry × Month FE	✓	✓	✓
Country × Month FE	✓	✓	✓
Control Variables	Yes	Yes	Yes
Observations	4,960	4,530	3,586
R^2	0.48	0.42	0.38

Table 11: Engagement and ICC

This table reports the effects of ESG engagement on firm implied cost of capital (ICC): $\Delta ICC_{i,t} = \beta_0 + \beta_1 \cdot Engagement_{i,t} + \boldsymbol{\beta_2} \cdot \boldsymbol{X}_{i,t-1} + \lambda_{j,t} + \eta_{c,t} + \varepsilon_{i,t}$. The sample includes each engagement observation and its matched non-engaged firms. The dependent variables in Columns (1)–(4) of the upper panel are the ratio changes in *ICC_ GLS* in months 3, 6, 9, and 12 following the engagement month, relative to its value in the month prior to engagement. Similarly, the dependent variables in Columns (5)–(8) of the upper panel are the ratio changes in *ICC_ PEG*. In the lower panel, the dependent variables in Columns (1)–(4) are the ratio changes in *ICC_ PEG*, and those in Columns (5)–(8) are the ratio changes in *ICC_ OJ*. *ICC_ GLS*, *ICC_ CT*, *ICC_ PEG*, and *ICC_ OJ* are ICC measures calculated using four commonly used models: Gebhardt et al. (2001), Claus and Thomas (2001), Easton (2004), and Ohlson and Juettner-Nauroth (2005), respectively. *Engagement* is a dummy that equals 1 if a firm was engaged in a given month and 0 otherwise. Control variables include *Size*, *Market-to-book*, *Sales Growth*, *ROA*, *Leverage*, *Cash Holding*, *Capital Expenditure*, *Institutional Own.*, *Asset Manager Own.*, *Refinitiv ESG Score*, and *Ln Own Incidents in [-3, -1]*. See Appendix A for variable definitions. Standard errors clustered at the industry-by-month level are reported in parentheses. * p<.10; ** p<.05; *** p<.01.

	ΔICC_GLS				ΔICC_PEG			
	(1) 3M	(2) 6M	(3) 9M	(4) 12M	(5) 3M	(6) 6M	(7) 9M	(8) 12M
Engagement	-0.002	-0.006	-0.013	0.005	-0.010	-0.006	-0.000	0.017
	(0.010)	(0.017)	(0.023)	(0.028)	(0.018)	(0.022)	(0.023)	(0.025)
Industry × Month FE	✓	✓	✓	✓	✓	✓	✓	✓
Country × Month FE	✓	✓	✓	✓	✓	✓	✓	✓
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,490	3,168	2,809	2,724	2,195	2,009	1,789	1,713
R^2	0.40	0.31	0.36	0.39	0.36	0.34	0.41	0.40

	ΔICC_CT				ΔICC_OJ			
	(1) 3M	(2) 6M	(3) 9M	(4) 12M	(5) 3M	(6) 6M	(7) 9M	(8) 12M
Engagement	-0.011	-0.023	0.010	0.027	-0.012	-0.000	0.007	0.021
	(0.018)	(0.028)	(0.035)	(0.038)	(0.016)	(0.022)	(0.024)	(0.026)
Industry × Month FE	✓	✓	✓	✓	✓	✓	✓	✓
Country × Month FE	✓	✓	✓	✓	✓	✓	✓	✓
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,474	2,246	2,024	1,984	2,076	1,908	1,697	1,621
R^2	0.47	0.43	0.47	0.47	0.42	0.35	0.42	0.41

Table 12: Engagement and Institutional Ownership

This table reports the effects of ESG engagement on institutional ownership: $\Delta Ownership_{i,t} = \beta_0 + \beta_1 \cdot Engagement_{i,t} + \boldsymbol{\beta_2} \cdot \boldsymbol{X}_{i,t-1} + \lambda_{j,t} + \eta_{c,t} + \varepsilon_{i,t}$. The sample includes each engagement observation and its matched non-engaged firms. The dependent variables in Columns (1)–(4) of the upper panel are the ratio changes in *Institutional Own.* at the end of quarters 1, 2, 3, and 4 following the engagement quarter, relative to its value at the end of the quarter prior to engagement. Similarly, the dependent variables in Columns (5)–(8) of the upper panel are the ratio changes in *Universal Inst. Own.*. In the lower panel, the dependent variables in Columns (1)–(4) are the ratio changes in *Stewardship Inst. Own.*, and those in Columns (5)–(8) are the ratio changes in *High-Norm Inst. Own.*. *Universal Inst. Own.* refers to ownership by investors whose portfolios include the largest number of stocks (top 1% across all institutions at the end of a given quarter). *Stewardship Inst. Own* is the ownership by institutions based in countries that passed any stewardship codes. *High-Norm Inst. Own* is the ownership by institutions headquartered in countries with an above-median Environmental Performance Index score. *Engagement* is a dummy that equals 1 if a firm was engaged in a given month and 0 otherwise. Control variables include *Size*, *Market-to-book*, *Sales Growth*, *ROA*, *Leverage*, *Cash Holding*, *Capital Expenditure*, *Institutional Own.*, *Asset Manager Own.*, *Refinitiv ESG Score*, and *Ln Own Incidents in [-3, -1]*. See Appendix A for variable definitions. Standard errors clustered at the industry-by-month level are reported in parentheses. * p<.10; ** p<.05; *** p<.01.

	ΔInstitutional Own.				ΔUniversal Inst. Own.			
	(1) 1Q	(2) 2Q	(3) 3Q	(4) 4Q	(5) 1Q	(6) 2Q	(7) 3Q	(8) 4Q
Engagement	0.007*	0.009*	0.013*	0.015*	0.012	0.013	0.030**	0.030**
	(0.004)	(0.005)	(0.007)	(0.008)	(0.008)	(0.010)	(0.014)	(0.014)
Industry × Month FE	✓	✓	✓	✓	✓	✓	✓	✓
Country × Month FE	✓	✓	✓	✓	✓	✓	✓	✓
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,408	4,286	3,887	3,746	4,406	4,284	3,885	3,744
R^2	0.23	0.23	0.24	0.27	0.30	0.26	0.28	0.30

	ΔStewardship Inst. Own.				ΔHigh-Norm Inst. Own.			
	(1) 1Q	(2) 2Q	(3) 3Q	(4) 4Q	(5) 1Q	(6) 2Q	(7) 3Q	(8) 4Q
Engagement	0.004	0.014	0.016	-0.064	0.010**	0.013**	0.019**	0.019*
	(0.009)	(0.012)	(0.018)	(0.174)	(0.005)	(0.005)	(0.008)	(0.010)
Industry × Month FE	✓	✓	✓	✓	✓	✓	✓	✓
Country × Month FE	✓	✓	✓	✓	✓	✓	✓	✓
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,403	4,281	3,882	3,741	4,408	4,286	3,887	3,746
R^2	0.63	0.58	0.62	0.84	0.23	0.24	0.23	0.27

A Variable Definition

Table A.1: Variable Definitions

Variable	Definition
Panel A: Key Regression Variables	
Engagement	Dummy for engamenet that equals 1 if a firm was engaged at a given month and 0 otherwise.
Ln Own Incidents in [-3, -1]	ln(1 + Number of firm own *ESG* incidents in months [-3, -1]).
Ln Own E Incidents in [-3, -1]	ln(1 + Number of firm own *Environmental* incidents in months [-3, -1]).
Ln Own S Incidents in [-3, -1]	ln(1 + Number of firm own *Social* incidents in months [-3, -1]).
Ln Own G Incidents in [-3, -1]	ln(1 + Number of firm own *Governance* incidents in months [-3, -1]).
Ln Customer Incidents in [-3, -1]	ln(1 + Average number of *ESG* incidents involving the firm's *customers* in months [-3, -1]).
Ln Customer E Incidents in [-3, -1]	ln(1 + Average number of *Environmental* incidents involving the firm's *customers* in months [-3, -1]).
Ln Customer S Incidents in [-3, -1]	ln(1 + Average number of *Social* incidents involving the firm's *customers* in months [-3, -1]).
Ln Customer G Incidents in [-3, -1]	ln(1 + Average number of *Governance* incidents involving the firm's *customers* in months [-3, -1]).
Ln Supplier Incidents in [-3, -1]	ln(1 + Average number of *ESG* incidents involving the firm's *suppliers* in months [-3, -1]).
Ln Supplier E Incidents in [-3, -1]	ln(1 + Average number of *Environmental* incidents involving the firm's *suppliers* in months [-3, -1]).
Ln Supplier S Incidents in [-3, -1]	ln(1 + Average number of *Social* incidents involving the firm's *suppliers* in months [-3, -1]).
Ln Supplier G Incidents in [-3, -1]	ln(1 + Average number of *Governance* incidents involving the firm's *suppliers* in months [-3, -1]).
Size	ln(1 + Total assets (USD)).
Market-to-book	$\frac{\text{Market Capitalization}}{\text{Total Common or Ordinary Equity}}$.
Sales Growth	$\frac{\text{Sales}_t - \text{Sales}_{t-1}}{\text{Sales}_{t-1}}$.
ROA	$\frac{\text{Earnings Before Interest}}{\text{Total Assets}}$.
Leverage	$\frac{\text{Debt in Current Liabilities+Total Long-term Debt}}{\text{Debt in Current Liabilities+Total Long-term Debt+Total Common or Ordinary Equity}}$.
Cash Holding	$\frac{\text{Cash and Short-Term Investments}}{\text{Total Assets}}$.
Capital Expenditure	$\frac{\text{Capital Expenditures}}{\text{Total Assets}}$.
Institutional Own.	Institutional ownership.
Asset Manager Own.	Ownership by the asset manager.
Refinitiv ESG Score	ESG score from Refinitiv / 100.
TV Material Insight	Material insight score from FactSet Truvalue SASB Scores / 100.
Ret in -1M	Stock return in the previous month.
Ret in [-12M, -1M]	$\prod_{t=-12}^{-1}(1 + Ret_{i,t}) - 1$, where $Ret_{i,t}$ is the return of stock i in month t.
Ln Article Number	ln(1 + Average annual number of ESG-related articles received by the firm between 2007 and 2022)

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Table A.1: Variable Definitions (continued)

Variable	Definition
Panel B: Engagement Outcomes	
BHAR [1M, TM] ($T = 3, 6, 9, 12$)	$\prod_{k=1}^{T}(1+R_{i,t+k}) - \prod_{k=1}^{T}(1+R_{m,t+k})$, where $Ret_{i,t}$ is the return of stock i in month t, and $Ret_{m,t}$ is the market return in month t.
ΔMaterial Insight Score_TM ($T = 1, 2, 3, 4$)	$\frac{\text{Material Insight Score}_{t=T} - \text{Material Insight Score}_{t=-1}}{\text{Material Insight Score}_{t=-1}}$, where *Material Insight Score*$_t$ refers to material *Insight* score from FactSet Truvalue SASB Scores at the end of month t relative to the engagement month.
ΔRefinitiv ESG Score_1Y	$\frac{\text{Refinitiv ESG Score}_{t=1} - \text{Refinitiv ESG Score}_{t=-1}}{\text{Refinitiv ESG Score}_{t=-1}}$, where *Refinitiv ESG Score*$_t$ refers to the ESG score from Refinitiv at the end of year t relative to the engagement year.
ΔSales_TY ($T = 0, 1, 2$)	$\frac{\text{Sales}_{t=T} - \text{Sales}_{t=-1}}{\text{Sales}_{t=-1}}$, where *Sales*$_t$ refers to sales at the end of year t relative to the engagement year.
ΔICC_GLS_TM ($T = 3, 6, 9, 12$)	$\frac{\text{ICC_GLS}_{t=T} - \text{ICC_GLS}_{t=-1}}{\text{ICC_GLS}_{t=-1}}$, where *ICC_GLS*$_t$ refers to ICC calculated following Gebhardt et al. (2001) at the end of month t relative to the engagement month.
ΔICC_PEG_TM ($T = 3, 6, 9, 12$)	$\frac{\text{ICC_PEG}_{t=T} - \text{ICC_PEG}_{t=-1}}{\text{ICC_PEG}_{t=-1}}$, where *ICC_PEG*$_t$ refers to ICC calculated following Easton (2004) at the end of month t relative to the engagement month.
ΔICC_CT_TM ($T = 3, 6, 9, 12$)	$\frac{\text{ICC_CT}_{t=T} - \text{ICC_CT}_{t=-1}}{\text{ICC_CT}_{t=-1}}$, where *ICC_CT*$_t$ refers to ICC calculated following Claus and Thomas (2001) at the end of month t relative to the engagement month.
ΔICC_OJ_TM ($T = 3, 6, 9, 12$)	$\frac{\text{ICC_OJ}_{t=T} - \text{ICC_OJ}_{t=-1}}{\text{ICC_OJ}_{t=-1}}$, where *ICC_OJ*$_t$ refers to ICC calculated following Ohlson and Juettner-Nauroth (2005) at the end of month t relative to the engagement month.
ΔInstitutional Own._TQ ($T = 1, 2, 3, 4$)	$\frac{\text{Institutional Own.}_{t=T} - \textit{Institutional Own.}_{t=-1}}{\text{Institutional Own.}_{t=-1}}$, where *Institutional Own.*$_t$ refers to institutional ownership at the end of quarter t relative to the engagement quarter.
ΔUniversal Inst. Own._TQ ($T = 1, 2, 3, 4$)	$\frac{\text{Universal Inst. Own.}_{t=T} - \text{Universal Inst. Own.}_{t=-1}}{\text{Universal Inst. Own.}_{t=-1}}$, where *Universal Inst. Own.*$_t$ refers to *Universal Inst. Own.* at the end of quarter t relative to the engagement quarter. *Universal Inst. Own.* refers to ownership by investors whose portfolios include the largest number of stocks (top 1% across all institutions in a given year).
ΔStewardship Inst. Own._TQ ($T = 1, 2, 3, 4$)	$\frac{\text{Stewardship Inst. Own.}_{t=T} - \text{Stewardship Inst. Own.}_{t=-1}}{\text{Stewardship Inst. Own.}_{t=-1}}$, where *Stewardship Inst. Own.*$_t$ refers to *Stewardship Inst. Own* at the end of quarter t relative to the engagement quarter. *Stewardship Inst. Own* is ownership by institutions based in countries that passed any stewardship codes.

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Table A.1: Variable Definitions (continued)

Variable	Definition
ΔHigh-Norm Inst. Own._TQ ($T = 1$, 2, 3, 4)	$\frac{\text{High-Norm Inst. Own.}_{t=T} - \text{High-Norm Inst. Own.}_{t=-1}}{\text{High-Norm Inst. Own.}_{t=-1}}$, where *High-Norm Inst. Own.*$_t$ refers to *High-Norm Inst. Own.* at the end of quarter t relative to the engagement quarter. *High-Norm Inst. Own.* is ownership by institutions headquartered in countries with above-median Environmental Performance Index scores.

B Summary Statistics of the Engagement Data

Table A.2: Engagements by ESG Categories, Topics, and Sub-topics

This table reports the number of engagement records by ESG category, topic, and sub-topic. One engagement may correspond to multiple categories, topics, or sub-topics. In such cases, the engagement is counted separately under each relevant category, topic, or sub-topic.

Panel A: Number of Engagements by ESG Categories

Category	Environmental	Social	Governance
#	576	405	738

Panel B: Number of Engagements by Topics

Topic	Biodiversity	Climate	Human Rights	Good Governance	Theme
#	87	501	322	567	61

Panel C: Number of Engagements by Sub-topics

Sub-topic	#	Sub-topic	#	Sub-topic	#
Transparency	325	Transparency/Materiality Feedback	19	Alternative proteins	4
Air and GHG Emissions	315	Deforestation	16	Fast Fashion	3
Human Rights Due Diligence	195	Sustainable Business Model	16	Covid-19 Response	3
Environmental Pollution	111	Energy Management	12	Air and GHG emissions	3
Diversity	104	Artic Drilling	11	Lobbying	3
Water	79	Community Impact	11	Corruption	2
Health & Safety	72	Biodiversity	10	Myanmar	2
Tax	68	Sustainable Production	6	Product Quality & Safety	2
Waste Management	62	AML	6	Gambling	2
Pharma	61	Data Privacy	6	Animal Welfare	2
Human Rights	42	Natural Resource Management	5	Gender Pay Gap	1
Labour Rights	32	Russia	5	Anti-Competitive Behaviour	1
TCFD	30	Impact Reporting	5	Supply Chain	1
Business Ethics	30	Water and waste management	5	Plastics	1
Net Zero Target	20	Cyber Security	4	Arctic Drilling	1

C Dynamic Effects

Figure A.1: ESG Incidents and Engagement Probability: Dynamic Effects

This figure plots the point estimates of the coefficients β_1^k, where $k = -1, -2, \ldots, -12$, along with their 95% confidence intervals, from the following model: $Engagement_{i,t} = \beta_0 + \sum_{k=-12}^{-1} \beta_1^k \cdot Number\ of\ Incidents_{i,t+k} + \boldsymbol{\beta}_2 \cdot \boldsymbol{X}_{i,t-1} + \lambda_{j,t} + \eta_{c,t} + \varepsilon_{i,t}$. The dependent variable, $Engagement_{i,t}$, is a dummy equal to 1 if firm i was engaged in month t, and 0 otherwise. The key independent variables, $Number\ of\ Incidents_{i,t+k}$, are defined as the logarithm of one plus the number of ESG incidents in month $t+k$. $\boldsymbol{X}_{i,t-1}$ includes *Size*, *Market-to-book*, *Sales Growth*, *ROA*, *Leverage*, *Cash Holding*, *Capital Expenditure*, *Institutional Own.*, *Asset Manager Own.*, and *Refinitiv ESG Score*. See Appendix A for variable definitions. The model includes industry-by-month fixed effects ($\lambda_{j,t}$) and country-by-month fixed effects ($\eta_{c,t}$). Standard errors are clustered at the industry-by-month level.

