External Governance Responses to Major Environmental and Social Incidents[*]

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Abstract

We explore shareholder responses at the next director election following a firm's recent major environmental and social (ES) incidents. Our findings reveal that incumbent directors experience lower shareholder approval rates following major ES incidents. Dissenting director votes increase when ES incidents are financially material and unexpected. Post-ES incidents, female directors lose more support from shareholders, while membership in no board committee stands out in terms of receiving increased dissenting votes. Boards are more likely to respond to negative shareholder votes following major ES incidents by linking executive pay to short-term (but not long-term) sustainability goals. We find no evidence that increasing dissenting votes leads to improved long-term ES policies. This finding may underscore the necessity of establishing guidelines to clarify board accountability for sustainability practice. Institutional investors should consider providing more comprehensive rationales for their director voting decisions, so as to facilitate significant improvements in firms' sustainability practices.

JEL Classification: G30, G34, G23, M14
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"...Increasingly, boards of directors are called upon to navigate the challenges presented by climate change, racial injustice, economic inequality, and numerous other issues that are fundamental to the success and sustainability of companies, financial markets, and our economy. This call, welcomed by some and eschewed by others, is attributable in part to the large and growing influence that corporations hold over the social and economic well-being of people and communities everywhere...[1]*"*

— Allison Herren Lee, SEC Former Commissioner, *June 28, 2021*

1   Introduction

Boards of directors play a crucial role in corporate governance by wielding significant power in key corporate decisions, such as hiring or firing members of the senior management team, setting executive compensation, and auditing critical firm risks[2]. However, in the post-pandemic era, the importance of a firm's sustainability performance has dramatically risen. Yet, there is limited empirical evidence evaluating the potential liability of directors regarding the concerns caused by major environmental and social (ES) incidents[3]. This study aims to address several important questions: Do shareholders hold directors accountable for oversight failures with respect to firms' ES performance through negative voting at director elections? If so, what types of ES incidents[4] are linked to increasing shareholder disapproval of directors and who are the main directors targeted by shareholders (e.g., female or male directors; directors on specific committees)? Do proactive board strategies concerning ES practices influence shareholder voting behavior following major ES incidents? Do directors experience severe labor market outcomes if they receive abnormally high negative votes

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[1] Keynote Address at the 2021 Society for Corporate Governance National Conference: *Climate, ESG, and the Board of Directors: "You Cannot Direct the Wind, But You Can Adjust Your Sails"*. See, https://www.sec.gov/news/speech/lee-climate-esg-board-of-directors

[2] Research on director accountability has traditionally focused on events directly related to financial performance, such as financial fraud lawsuits, earnings restatements, and options backdating (see Srinivasan, 2005; Fich and Shivdasani, 2007; Gilson, 1990; Ertimur et al., 2012 among others).

[3] Anecdotal evidence suggests that investors are increasingly concerned about environmental and social issues and are actively seeking to influence boardroom composition. A notable example occurred in May 2021, when Engine No. 1, an impact-focused hedge fund, played a significant role in electing three eco-conscious nominees to ExxonMobil's 12-member board, despite holding only 0.02 percent of the firm's shares.

[4] We interchangeably use "ES incidents" or "ES risk events" to refer to the major environmental or/and social accidents experienced by firms.

from investors post-ES incidents? Lastly, and importantly, do firms significantly enhance their sustainability performance after boards receive more negative votes?

Shareholder voting on director elections represents a primary mechanism for exerting influence over a firm's board (see Ertimur et al., 2012; Aggarwal et al., 2019; Liu et al., 2020, among others). Ex-ante, it is unclear whether investors employ their voting power in director elections (external governance) to hold directors liable for major failures in monitoring corporate ES practices and to pressure boards into more effectively monitoring the sustainable performance of the firm. On one hand, investors may choose not to withhold their votes during director elections even after firms experience major sustainability-related incidents, for several reasons. First, investors may refrain from publicly penalizing directors with negative votes if they primarily view them as advisors. In such cases, directors who contribute value through expertise in areas like auditing and compensation setting may not face penalties. Second, shareholders may assign the primary responsibility for ES practices to the management team, thereby reducing the emphasis on directors' oversight of corporate sustainability practices. Third, rather than voting against directors, shareholders might opt for direct dialogue (e.g., Dimson et al., 2015, Krueger et al., 2020, Hoepner et al., 2024) or divestment strategies (e.g., Duchin et al., 2022, Gantchev et al., 2022) to express their concerns about a firm's environmental and social shortcomings.

On the other hand, investors have incentives to vote against incumbent directors following major ES incidents. The literature has shown that poor ES practices can exert pressure on a company from various perspectives, including investors, creditors, employees, consumers and suppliers[5]. Corporate directors, acting as primary agents for shareholders, bear the fiduciary responsibility to stay informed about significant risks confronting their firms[6]. Edmans (2024) points out that the notion that integrating ESG risks into decision-making contradicts fiduciary duty is illogical, given that risk assessment is fundamental to fiduciary

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[5] See Edmans (2011); Chava (2014); Dimson et al. (2015); Chen et al. (2020); Krueger et al. (2023); Houston and Shan (2022); Houston et al. (2022); Xiao et al. (2023); Dube et al. (2023); Duan et al. (2023); Bisetti et al. (2023); Colak et al. (2023) amongst others.

[6] In line with this view, former Chief Justice of the Delaware Supreme Court Leo Strine contended that ESG considerations should fall under the purview of board-level risk oversight.

duty. In our context, major ES incidents could signify a failure on the part of directors to adequately integrate ES risks into their decision-making processes, reflecting the boards' failure to fulfill their fiduciary duty. As Fos et al. (2018) shows, the director election process can enhance the alignment of shareholder and director interests. Taken together, following major ES incidents, shareholders have motivations to exert pressure on the board through negative votes on director elections, expecting that directors will actively engage and collaborate with management to oversee the company's sustainability strategy.

In conclusion, the conflicting arguments shown suggest that ex-ante, investors' response to firms' ES incidents through voting on directors remains uncertain[7]. Hence, a primary objective of this paper is to examine if investors hold boards of directors accountable for ES misbehavior, with a focus on subsequent negative votes during director elections, given that dissenting votes adversely affect a director's reputational capital (see Bernile and Jarrell, 2009; Ertimur et al., 2012).

To test our main hypothesis, we first create a merged dataset starting with a full set of firms listed on the three major US stock exchanges, director voting data from ISS, and ES incidents from Reprisk. We begin our analysis by utilizing the complete director sample with voting and ES incidents data available, including both executive and non-executive directors. Our findings indicate that, compared to non-executive directors, executive directors, particularly CEO-directors, receive a significantly higher percentage of negative votes following more major ES incidents. This result suggests that shareholders attribute greater accountability to those involved in management roles, given their direct involvement in the daily operations of the firm.

Next, we reduce our sample to independent directors[8] to investigate whether the pri-

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[7] This uncertainty is underscored by findings in surveys conducted by PwC (2022), which reveal that a majority of directors do not consider ES concerns as significant risks, nor do they view them as pertinent to the firm's performance or shareholder interests. According to the survey, only 45% of directors believe that ESG issues have an impact on company performance. These survey findings suggest that board oversight of ES matters could be insufficient, stemming from a perceived lack of responsibility for such issues.

[8] We further restrict our sample to include only independent directors, given their importance in monitoring and disciplining managers. By doing so, we exclude non-executive directors who lack independence due to significant ties to the firm.

mary monitors of firms also bear responsibility for ES issues. We show that, on average, directors of firms that experience more major ES incidents receive a higher percentage of negative votes. In terms of economic impact, the coefficient estimates in the baseline regression table indicate that, compared to a director of a firm without a major ES incident, a director serving in a firm that has experienced at least one major ES incident in the 12 months preceding a specific shareholder meeting faces an approximate 4.5% to 9% greater negative votes relative to the mean% (depending on different sets of fixed effects).

However, ES incidents may not occur randomly across firms. For instance, larger firms may have a higher likelihood of experiencing a major ES incident due to their greater media exposure. To address this concern, we use entropy balance and propensity score matching approaches. Our findings indicate that institutional investors penalize directors by withholding 'For' votes, holding them accountable for major ES incidents. This accountability may serve as an ex-ante incentive for directors to closely monitor the firm's sustainability issues.

To gain a better understanding of which types of incidents are more likely to trigger shareholder dissent through negative voting on directors, we separate ES incidents into different groups based on three parameters: (1) Financially Material v.s. Financially Immaterial; (2) Novel v.s. Non-Novel; (3) Reach v.s. Non-Reach. We reclassify the ES incidents into financially material and financially immaterial issues, as per the guidance provided by the Sustainability Accounting Standards Board (SASB) industry-based guidance[9]. This guidance identifies the sustainability-related risks that are most likely to impact a company's cash flows, access to finance, and cost of capital over the short to long term[10]. In terms of novelty and reach, we follow the classification according to the RepRisk. Novelty measures whether it is the first occurrence of a company being associated with a specific ES issue in

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[9] The International Sustainability Standards Board (ISSB) of the IFRS Foundation took over responsibility for the SASB Standards in August 2022. The International Sustainability Standards Board (ISSB) of the IFRS Foundation also encourages organizations to continue adopting the SASB Standards to help increase disclosure quality and relevance. Find more details regarding SASB: https://sasb.org/

[10] For instance, SASB's framework illustrates that while greenhouse gas emissions might not represent a significant financial concern in the technology and communications or services sectors, they do so in the extractive and mineral processing sectors.

a particular location. The level of reach of an incident is determined based on the reporting news agency that covers the incident. High-reach sources comprise global news outlets, medium-reach sources encompass national or regional media outlets, and low-reach sources consist of local media and social platforms.

We find that directors face increased negative votes% following financially material and novel ES incidents, but do not observe a higher percentage of shareholders voting against directors when ES incidents are classified as medium-to-high reach. In the Appendix table, we present results indicating that directors receive more negative shareholder votes when the pecuniary costs associated with ES incidents are higher. By utilizing the detailed categories of ES incidents provided by RepRisk, we find that major ES incidents linked to climate change and greenhouse gas emissions, and those that are mainly related to employee relations such as workplace discrimination, and forced labor, are associated with a higher percentage of dissenting votes during director elections.

Subsequently, we explore whether boards that proactively engage in companies' ESG initiatives receive fewer negative votes following an ES incident compared to those that do not. We test three potential proactive strategies related to ES objectives: (1) Implementation of ES-linked compensation; (2) Establishment of a sustainability committee; (3) Adoption of enhanced ES policies. In recent years, more firms are now tying executive pay to sustainability goals (Cohen et al., 2023; Hazarika et al., 2023). The executive compensation contracts are aimed at aligning shareholder and managerial interests and facilitating effective oversight of corporate executives. Our findings indicate that when boards proactively implement ES-linked compensation structures focused on long-term sustainability objectives, directors receive fewer negative votes following ES incidents. This suggests that boards with well-defined oversight mechanisms through ES-related compensation structures are viewed as more accountable compared to those without. Also, by adopting ES-linked incentive plans, shareholders can potentially transfer a portion of the financial costs resulting from ES incidents to executives. In contrast, we do not observe statistically significant evidence indicating that the establishment of a board sustainability committee or the firm's adoption of

enhanced ES policies compared to industry peers during the same year effectively mitigates the negative impact of ES incidents on director voting outcomes. This suggests that shareholders may perceive the latter two strategies as symbolic gestures rather than substantive actions.

As Aggarwal et al. (2019) demonstrates, although it is rare for directors to fail at reelection, facing disciplinary votes can still lead to public embarrassment and adversely affect a director's reputation and prospects for future renomination. Therefore, we aim to investigate whether experiencing major ES incidents further raises the sensitivity of director departures to negative voting outcomes. Our findings indicate that the disciplinary impact of negative votes is heightened when directors sit on the boards of firms that have encountered more ES incidents. This result aligns with the findings of Liu et al. (2020), which finds that the disciplinary effect weakens when outside institutional investors are distracted. In our context, major ES incidents are highly likely to attract shareholder attention (i.e., fewer distractions). Consequently, directors of firms with greater ES issues are more likely to face turnover following higher abnormal percentages of shareholder dissenting votes. Yet, we fail to observe a spillover effect of these negative votes on directors' other outside directorships following ES incidents.

We investigate whether boards respond to shareholders' negative votes and whether shareholder voting on director elections following major ES incidents leads to improvements in firms' future sustainability practices. We find that boards are likely to adopt short-term ES-linked compensation in executive contracts when they receive higher levels of negative votes following major ES incidents, reflecting pressures to motivate executives to pay sufficient attention to concurrent ES risks. Using the methodology introduced by Gantchev et al. (2022), we employ two measurements to evaluate firms' future ES practice: (1) changes in a firm's ES scores in the following three years; (2) changes in frequencies of ES incidents in the next three years. Despite employing both measures, we fail to observe significant improvements in firms' ES scores or decreases in the frequency of ES incidents after boards receive more negative shareholder votes following major ES incidents. This finding suggests

that shareholders may not exert significant influence over a firm's sustainability practices through their voting decisions on directors.

Lastly, we provide additional tests. We show that one of the most influential proxy advisors, ISS, is more likely to recommend voting "Against" directors when firms experience more ES incidents. Regarding heterogeneity in director outcomes, we show that female directors receive higher negative votes following major ES incidents, suggesting that they are likely to be targeted when firms face heightened ES risks. However, we do not find evidence suggesting that a particular committee is targeted following the incidents, indicating that ES accountability within a board may not be clearly established. Utilizing firm location data and presidential election voting data, we find that directors of firms located in counties that are Democratic-leaning receive more negative votes following ES incidents. We argue that this could be due to heightened regulatory scrutiny in Democratic-leaning counties, which may entail higher pecuniary costs following incidents, or Democratic-leaning local shareholders expressing their displeasure.

This study contributes to the literature along two main dimensions. First, this paper contributes to the growing body of literature investigating the factors influencing shareholder decisions to vote against directors. A recent study by Michaely et al. (2024) stands out as one of the first to leverage institutional investors' voting rationale data to explore why they vote against directors. Their primary focus revolves around voting against directors for broader rationales, such as corporate governance and board gender diversity. Aggarwal et al. (2024) utilize MSCI ESG scores and provide evidence that investors significantly increase the percentage of votes withheld when they express concerns about a firm's poor corporate governance (CG) issues, but not ES issues except those related to climate change. In our paper, we exploit ES incidents reported in RepRisk, which more precisely captures the actual performance of a firm's ES activities, and present evidence that directors do receive more negative votes following major ES incidents. This finding remains consistent even when controlling for governance incidents, ISS voting recommendations, and different sets of fixed effects.

Our study closely relates to contemporaneous work by Ding et al. (2024), which finds

that directors are more likely to leave firms experiencing ES incidents, and shareholders withhold more votes from directors in firms with ES failures. In our paper, we argue that director turnover could be a consequence of increased negative votes by shareholders, suggesting that turnover may be a second-order effect. Consistent with this view, we find that directors of firms with greater ES issues are more likely to face turnover following higher abnormal percentages of shareholder dissenting votes. We also provide an extensive analysis of how shareholder voting patterns differ based on various characteristics of ES incidents and whether they target specific directors. For instance, we demonstrate that female directors are more likely to receive dissenting votes following ES incidents, and there is no significant evidence suggesting that any particular committee receives more dissenting votes after ES incidents. Additionally, we examine whether proactive ES strategies implemented by boards can mitigate negative votes when ES incidents occur. Furthermore, we investigate the effectiveness of external voting mechanisms on board reactions and firms' future ES practices.

Second, our study complements existing research on shareholder reactions to poor ES performance. Divestment and engagement are recognized as two primary channels for investors to express dissatisfaction with firms' current ESG practices and to pressure firms to make future changes. Regarding divestment, Gantchev et al. (2022) demonstrate that even highly ES-conscious institutional shareholders exhibit relatively low levels of divestment from firms involved in ES incidents, yet the threat of investors' future exits appears to significantly motivate firms to improve their sustainability performance. Another avenue for improving corporate ES practices is engagement with management (Dimson et al., 2015; Krueger et al., 2020; Becht et al., 2021; Hoepner et al., 2024). For instance, Dimson et al. (2015) utilized a proprietary dataset of engagements to illustrate how shareholder activism can effectively address shareholder concerns regarding ESG practices. Our study provides evidence that shareholders also respond to negative ES incidents by expressing dissent through votes against incumbent directors and holding them accountable for the incidents. However, we do not find evidence that voting against directors following ES incidents significantly im-

proves firms' future ES practices. We suppose that the ineffectiveness is consistent with the findings in Hoepner et al. (2024), who report that engagement only has consequences if the target firms acknowledge the existence of an issue after it has been raised by shareholders. The lack of effectiveness in voting against directors post-ES incidents may encourage shareholder, especially institutional investors, to provide more comprehensive rationales for their actions, aiming to foster substantial improvements in firms' sustainability practices.

The remainder of the paper is structured as follows. Section 2 outlines the construction of variables, details the data used, and presents descriptive statistics. Section 3 examines how shareholders vote on director elections following major ES incidents. Section 4 discusses the impact of voting outcomes on the director labor market; boards's response; and the firms' future ES practice following major ES incidents. Section 5 presents additional tests and several robustness checks, and Section 6 concludes the paper.

2 Data and Sample

Our study employs ES incidents data sourced from RepRisk, voting outcomes on director elections from the ISS Voting Analytics database, ESG ratings, ESG policies, Sustainability Committee data from Refinitiv, director characteristics drawn primarily from BoardEx, board governance index from the ISS Governance database, firm characteristics from Compustat/CRSP, ES-linked pay from ISS Executive Compensation Analytics (ECA), and financial materiality classifications from SASB. Additional details on variable construction for this study are provided in Table A1 in Appendix A. The sample spans a 15-year period from fiscal year 2007 to fiscal year 2021, as the data from the RepRisk database is available starting from 2007. We winsorize all continuous variables at the 1% and 99% levels.

2.1 Major ES Incidents

We employed ES incidents data sourced from RepRisk. RepRisk has been leveraging the combination of AI and machine learning with human intelligence to translate big data into

actionable research, analytics, and risk metrics. RepRisk categorizes each incident into environmental, social, and governance domains, encompassing 28 broad ESG-related issues. In this study, our focus is on major ES incidents categorized as medium-to-high severity by RepRisk, excluding minor incidents that may not attract investors' attention[11]. .

There are a few key advantages to utilizing RepRisk ES incidents data. First, RepRisk takes an external perspective on ESG risks by assessing information from stakeholders and public sources, without considering firm self-disclosures. This approach is crucial because self-reported ESG data is prone to bias, given the prevalence of greenwashing practices, especially in risk disclosures. Second, as emphasized by Berg et al. (2022), there is considerable disparity among ESG rating agencies that evaluate firms' ESG policies to assign ratings. RepRisk focusing on downstream ESG reputation risk using actual incidents may help address these concerns.When a specific ES incident is reported in multiple sources, RepRisk includes the incident from the most prominent source only once. This practice helps reduce measurement errors when estimating the impact of multiple ES incidents. Third, RepRisk categorizes ES incidents based on media reach and novelty allowing us to test which types of ES incidents are more closely associated with dissent votes by shareholders. The aforementioned advantages contribute to the increasing popularity of RepRisk ESG incident data among researchers investigating the effects of negative ESG shocks on firm policies, equity market reactions, and other corporate stakeholders' behavior (e.g., Glossner, 2021; Gantchev et al., 2022; Houston et al., 2022; Derrien et al., 2022; Bisetti et al., 2023; Dube et al., 2023; Duan et al., 2023; Xiao et al., 2023; Colak et al., 2023).

Existing literature provides evidence that institutional investors are more likely to vote against directors when concerns arise regarding governance matters such as board diversity, board independence, and tenure (see, for example, Cai et al., 2009; Michaely et al., 2024; Aggarwal et al., 2024). However, our primary research focus is on ES issues, such as greenhouse gas emissions and employee discrimination, since these issues have increasingly become

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[11] In untabulated tables, we analyze ES incidents of all severity levels, and the results consistently affirm our findings regardless of incident severity. However, the coefficient magnitude decreases, indicating that the impact of major ES incidents on negative votes is stronger.

focal points for both shareholders and relevant stakeholders. Following the approach outlined by Gantchev et al. (2022), we include governance news coverage as a control variable to strengthen the robustness of our findings.

2.2 Shareholder Voting on Director Election Proposals

Director voting outcomes are sourced from the ISS Voting Analytics database. Our study focuses on elections in which director slates are sponsored by management and limits the sample to incumbent directors. This approach allows us to investigate how shareholders utilize their voting rights to express dissatisfaction with members who were on boards after major ES incidents occurred.

We first collect director names from the BoardEx database, which relies on information from firms' annual reports. Then, we extract director names from ballot item descriptions in the ISS Voting Analytics database. The matching process requires a one-to-one correspondence of individual directors between the BoardEx and ISS Voting datasets. Utilizing a name-matching algorithm, we compare director names obtained from annual reports with those listed in proxies for director elections during subsequent annual meetings of the same companies. Further manual verification is conducted to ensure accurate matching.

Our study employs the widely used measure of shareholder voting against directors (e.g., Cai et al., 2009; Aggarwal et al., 2019; Liu et al., 2020). We calculate the percentage of negative votes by summing the total "Against" and "Withheld" votes for each director candidate and dividing by the total votes cast[12]. In our robustness check, we employ an alternative measure to proxy for the percentage of funds voting withheld from director elections, and we find the same conclusion as in our main tests.

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[12] Our study examines director elections conducted under both plurality and majority voting systems. In plurality voting, shareholders have the option to vote "For" or withhold their votes, whereas, in majority voting, shareholders can vote "For" or "Against" a director (Ertimur et al., 2015).

2.3 Control Variables

We incorporate various levels of control variables, including director-level characteristics, board-level characteristics, and fundamental information of firms. Director-level controls sourced from BoardEx include director age, director busyness (measured by the number of total directorships), director tenure on the board, and director educational qualifications. Also, we utilize BoardEx to account for critical company governance characteristics such as board size, gender diversity, board independence, CEO-chair duality, and board average age. Utilizing the ISS Governance database, we incorporate a commonly used governance metric known as the entrenchment index, developed by Bebchuk et al. (2009). The accounting controls are collected from Compustat/CRSP, including firm size, return-on-assets, and stock return. Additionally, we rely on institutional ownership data from Thomson Reuters (from Schedule 13F filings).

2.4 Descriptive Statistics

After consolidating data from multiple databases and excluding observations lacking the control variables, our final baseline sample spans the period from 2007 to 2021. Given that our main focus is on the sample including independent directors, we primarily show the summary statistics restricted to only independent directors. The baseline sample comprises approximately 15,000 firm-year observations, including 14,650 unique independent directors, primarily from Russell 1500 firms. Summary statistics for these key variables are provided in Table 1.

[Please insert Table 1 about here]

Table 1 reveals that in our sample, less than 20% of firm-year observations have encountered at least one major environmental or social incident. The 75th percentile value for major ES incidents (0/1) is zero, suggesting that major ES incidents are relatively uncommon. The average number of major social incidents (0.557) is higher than that of major environmental incidents (0.341) in our sample. Regarding shareholder voting on independent directors, the

mean and median percentage of negative votes on director election proposals are 4.4% and 2%, respectively, which aligns with the statistics reported by Aggarwal et al. (2019).

3 Shareholder Votes on Director Elections

3.1 Voting Outcomes for Different Director Types

We start our analysis by studying how investors vote in director elections across different types of directors, whose responsibilities may vary from the perspective of shareholders. Weisbach (1988) highlights disparities in monitoring between managers serving as directors (executive directors) and non-full-time employee directors (outside directors), who are widely believed to take on a more active role in monitoring management. We hypothesize that executive directors, particularly those serving as CEOs, may face a higher proportion of negative votes as environmental and social concerns intensify, given their direct involvement in day-to-day operations. Major ES incidents could be perceived as their failure to adequately address these matters within the company.

Table 2 presents our findings on the relationship between major ES incidents and voting outcomes at the director level across various director types. We categorize directors into three groups: executive directors versus non-executive directors, CEO-directors versus non-CEO directors, and dependent directors versus independent directors[13]. Our dependent variable is Negative Votes%, representing investors' dissatisfaction with a director during a director election. We report ordinary least squares (OLS) estimates with two sets of fixed effects including (1) industry-by-year fixed effects; (2) firm and industry-by-year fixed effects. The fixed effects allow us to control for unobserved firm heterogeneity and potential confounding industry shocks.

[Please insert Table 2 about here]

The findings presented in Table 2 indicate that, on average, executive directors, espe-

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[13] In our sample, more than 90% non-executive directors are independent directors.

cially CEO-directors, receive a higher percentage of disciplinary votes from investors during elections following major ES incidents. Specifically, when a firm experienced one major ES incident in the 12 months preceding the shareholder meeting, executive directors receive approximately 0.7% more negative votes compared to non-executive directors. In addition, as shown in Columns 2 and 5, the finding that CEO-directors receive even greater amount of dissent votes following ES incidents are consistent with existing literature suggesting that CEOs face reputational penalties when they underperform in their responsibilities (e.g., Dai et al., 2023; Lel, 2023; Colak et al., 2024).

3.2   Voting Results on Independent Directors

We then narrow down our sample to only independent directors, who are often regarded as pivotal monitors of firms (Liu et al., 2020). ES incidents could indicate ineffective board oversight of sustainability issues. Moreover, when ES issues arise, investors are susceptible to agency problems [unclear what they are] and are likely to experience financial losses due to the adverse impacts of such incidents. Consequently, shareholders may exercise their voting rights to express discontent with directors and to hold them accountable for poor ES performance. To test the conjecture, we estimate the following pooled director-level ordinary least squares regression with heteroskedasticity-robust standard errors clustered by firm:

$$Negative\ Votes\%_{i,f,t} = \beta_1 Major\ ES\ Incidents_{f,t-12m} + \beta_2 Controls + \epsilon \tag{1}$$

Table 3 Panel A presents the results. Across Columns 1-6, the coefficients for Ln(1+ES Incidents) and ES Incident(0/1) are all positive and statistically significant at the 10% level. Therefore, the results confirm that when firms face heightened environmental and social risks, directors receive less support from shareholders during elections. In particular, the coefficients in Columns 4-6 for ES Incident(0/1) indicate that experiencing a major ES incident increases the proportion of negative votes on incumbent director elections by more

than 0.2%-0.4%. This represents a significant economic increase, considering that the mean of negative votes percentage in our sample is 4.4%. In Column 3 and Column 6, we conducted analysis incorporating director fixed effects to mitigate the potential influence of unobservable director characteristics. This addresses the concern that directors of ES incidents firms may be controversial, resulting in consistently high votes withheld. Upon integrating director-fixed effects, our baseline findings remain robust.

[Please insert Table 3 about here]

We note that ES incidents are unlikely to be randomly assigned to firms in our sample. Larger firms or firms in certain industries may have a higher propensity to experience ES incidents. To address this concern, we employ two matching approaches. First, we use the entropy-balancing approach (Hainmueller, 2012) to balance firm and board-level characteristics that could impact the likelihood of experiencing ES incidents. We use the ES Incident (0/1) as the outcome variable rather than Ln(1+ES incidents), as the matching approach is intended to balance the probability of a firm experiencing an ES incident in a given year. We also use the propensity score matching (PSM) approach to match firms based on firm-level and board-level characteristics. The results presented in Table 3 Panel B indicate that using both the entropy balancing approach and the PSM approach, our earlier result continues to hold that independent directors receive a higher level of dissenting votes following major ES incidents.

3.3 Heterogeneity of ES Incidents

In this section, our primary focus is exclusively on independent directors. We conduct regression analyses to examine the influence of various characteristics of ES incidents on shareholder voting for directors. Additionally, we investigate the effects of different categories of ES incidents on shareholder voting concerning directors.

Not all environmental and social issues carry the same significance to shareholders (Chen et al., 2020; Edmans, 2021). Consequently, shareholders are unlikely to attribute re-

sponsibility to directors for all types of ES incidents, as not all incidents have equal materiality to the firm's value. Therefore, we hypothesize that investors only hold directors accountable for major ES incidents that are financially material, indicating that these ES risk events are likely to have a detrimental impact on firm financial performance.

To investigate the effect of the materiality of ES issues on voting outcomes, we first manually map RepRisk ES incidents to SASB categories based on SASB industry-specific materiality guidelines for 11 sectors, representing 77 industry categories. SASB defines material issues as those demonstrating widespread interest from diverse user groups and showing evidence of financial impact, akin to the criteria utilized by the SEC in determining the materiality of financial information. In contrast to previous studies utilizing all five SASB dimensions of ESG issues, our study focuses exclusively on three dimensions that are ES-related given our study's scope: environment (e.g., greenhouse gas emissions), social capital (e.g., human rights and community relations), and human capital (e.g., labor practices). After mapping, we aggregate the numbers of financially material and immaterial ES incidents experienced by a firm during the 12 months preceding a particular shareholder meeting.

[Please insert Table 4 Panel A about here]

Columns 1-3 in Table 4 Panel A demonstrate positive and statistically significant coefficients on Ln(1+Material ES Incidents) at the 5% level. However, there is no evidence suggesting that directors receive more negative votes following increased numbers of immaterial ES incidents, as the coefficient on Ln(1+Immaterial ES Incidents) is statistically insignificant at the 10% level. The horse-racing regression in Column 3 further confirms that directors are primarily held accountable for financially material ES issues. In the appendix, we provide evidence indicating that when ES incidents are associated with higher pecuniary costs, directors receive more dissenting votes at the subsequent director election.

Next, we explore the potential heterogeneous impact of the novelty of ES incidents on director election outcomes. Following the RepRisk definition, novelty is categorized into two distinct groups. A higher novelty value indicates that it is the first instance of a company or project being exposed to a specific ES issue in a particular location. The influence of ES

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incident novelty on election outcomes is not known ex-ante. On one hand, shareholders may hold directors accountable for non-novel ES incidents, as they signify a recurring pattern of ES issues and suggest that directors have failed to monitor firm operations. On the other hand, shareholders may be inclined to hold directors accountable when ES incidents are novel, as they have not encountered them previously and are more likely to react strongly to such incidents. By voting against directors, shareholders can compel them to address these ES issues.

Columns 4 in Table 4 Panel A demonstrate positive and statistically significant coefficients on Ln(1+Novel ES Incidents) at the 5% level. In contrast, the coefficient of Ln(1+Non-novel ES Incidents) in Column 5 is statistically insignificant at the 10% level, suggesting that directors are not liable for more non-novel ES incidents. Again, the horse-racing regression in Column 6 further suggests that shareholders primarily attribute accountability to independent directors regarding novel ES issues, indicating a heightened shareholder reaction towards novel incidents.

The last regressions in Table 4 Panel A compares the potential heterogeneous impact of reach ES incidents versus non-reach ES incidents on director election outcomes. The reach of an incident is captured by the coverage scope of the news agency reporting on the event. However, the coefficients of Ln(1+Reach ES Incidents) and Ln(1+Non-reach ES Incidents) in Columns 7-9 are statistically insignificant at the 10% level. This implies that there is no significant difference in terms of voting on directors between these types of ES incidents. One possible explanation is that institutional investors, who are the primary voters, are diligent in their research and thorough in capturing news. Therefore, even if a major event is covered by only one news source, they are likely to react accordingly based on their analysis of the incident's impact.

To better understand which category of ES incidents is associated with higher dissent votes, we utilize the detailed classification of ES incidents by RepRisk, as depicted in Table A2. The findings are presented in Table 4 Panel B. Concerning environmental incidents, we observe that major incidents related to climate change, greenhouse gas (GHG) emissions,

global pollution, and impacts on landscapes, ecosystems, and biodiversity are associated with significantly lower shareholder support in subsequent director elections. Specifically, the coefficient of "GHG Emissions" (representing climate change, GHG emissions, and global pollution) exhibits the highest absolute magnitude among environmental issues and is statistically significant at the 5% level.

[Please insert Table 4 Panel B about here]

Regarding social incidents, our result reveals that incidents related to employee relations, as opposed to community relations, correlate with higher levels of dissent votes. Discrimination incidents notably have the most pronounced impact on negative votes for directors, reflecting the current societal emphasis on gender and racial diversity as crucial social issues. Other social incidents that are linked to more dissenting votes are issues related to child labor, forced labor, and poor employment environment.

3.4 The Moderating Effect of Proactive Board ES Strategies

In this section, we explore whether proactive board strategies related to environmental and social practices influence the impact of major ES risk events on shareholder voting behaviour towards boards. We identify several possible proactive board actions regarding ES practices: (1) Implementation of ES-linked compensation; (2) Establishment of a sustainability committee; (3) Adoption of enhanced ES policies. Ex-ante, before ES incidents, boards with superior ES risk oversight should face lower shareholder dissatisfaction as the enhanced oversight reflects the fulfillment of directors' fiduciary duties to shareholders. We conduct a separate analysis on the influence of each proactive ES strategy on shareholder votes in director elections.

[Please insert Table 5 about here]

First, following Cohen et al. (2023), we utilize ES-linked compensation data from the ISS Executive Compensation Analytics (ECA) database. ISS ECA offers detailed and comparable information on incentive awards, including the types of incentives and incentive plans[14]. We

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[14] ISS ECA classifies whether an incentive is tied to ESG goals. We then manually filter out those incentives

measure proactive adoption of ES-linked pay (ES-linked Pay) using an indicator variable assigned a value of one if a board instituted incentives linked to ES goals for executives one year before the incident year, and zero, otherwise. In Column 1 of Table 5, the coefficient of Ln(1+ ES Incidents)×ES-linked Pay(0/1) is negative (-0.003) but statistically insignificant at the 10% level.

In Columns 2 and 3 of Table 5, we separately investigate whether short-term ES-linked pay or long-term ES-linked pay could have any influence. The statistically significant coefficient of the interaction term Ln(1+ ES Incidents)×LT ES-linked Pay(0/1) is negative (-0.010) and statistically significant at the 5% level, suggesting that boards receive fewer negative votes after ES incidents mainly due to the adoption of long-term incentive plans associated with ES goals. This result may stem from shareholders perceiving long-term incentive plans as less myopic decisions made by the boards, and linking long-term incentive plans to ES goals could also signal careful consideration. Also, by integrating ES metrics into executive compensation, corporate executives may internalize the financial costs arising from the firm's ES incidents, potentially alleviating the financial burden on shareholders.

Second, we assess the influence of forming an ES committee prior to ES incidents on the subsequent voting outcomes against directors. The indicator variable ES Committee(0/1) is derived from the Refinitiv database. Initially, we hypothesize that the establishment of an ES committee, tasked with the overarching responsibility for a company's sustainability policy and its implementation oversight, would result in boards being less likely to face negative votes in the aftermath of ES incidents. However, as shown in Column 5 of Table 5, the interaction term Ln(1+ ES Incidents)×ES Committee(0/1) is statistically insignificant. This suggests that the formation of an ES committee before ES incidents does not significantly reduce shareholder dissatisfaction following ES incidents, which may imply that shareholders perceive the establishment of an ES committee as merely symbolic, without substantive impact on ES concerns.

Third, we examine whether boards implementing more ES-related policies receive fewer

solely linked to governance goals, retaining only those linked to environmental or social performances.

negative votes compared to those with fewer ES-related policies following major ES incidents. Following Amiraslani et al. (2023), we construct a variable ES Policies Score encompassing Environmental Policies, Green Innovation Policies, Labor Policies, and Product Responsibility Policies from the Refinitiv database. The higher the ES Policies Score is, the more ES policies are made by a board. We construct a variable named Enhanced ES Policy(0/1), which equals to one if a firm has a higher ES Policies score compared to its industry peers in the same year. Table 5 Column 6, the statistically insignificant coefficient associated with the interaction term Ln(1+ ES Incidents)×Enhanced ES Policy(0/1) indicates that boards that have adopted a greater number of ES policies, which presumably direct resources towards ES issues, do not significantly reduce shareholder dissatisfaction after experiencing a major ES incident. This may also suggest shareholders may perceive the ES policies more as symbolic gestures than as substantive actions undertaken by the boards.

In summary, boards experience a decrease in disciplinary votes from investors following major ES incidents when they have implemented compensation schemes tied to long-term ES objectives, aiming to align the interests of owners and managers. However, the establishment of an ES committee or the adoption of additional ES policies prior to ES incidents does not seem to alleviate shareholder dissatisfaction when ES risks escalate.

4   The Effectiveness of Voting Outcomes

4.1   Shareholder Voting and Director Turnover

Aggarwal et al. (2019) demonstrates that although directors rarely fail to be re-elected, those who receive relatively weaker support from shareholders in their last election experience public embarrassment and are less likely to be renominated. We hypothesize that major ES incidents draw investors' attention, leading to increased monitoring pressure on the board and an increased possibility of removing directors currently serving on the boards. To test this hypothesis, we investigate whether experiencing major ES incidents further amplifies

the sensitivity of director departures to negative voting outcomes.

[Please insert Table 6 about here]

Table 6 presents the estimates from the linear probability models (LPM). Given BoardEX provides dates of director turnover within a firm, we can accurately capture director turnover one year following a specific shareholder meeting. Consistent with prior research, our findings reveal that directors with higher dissent votes are more likely to leave board positions and outside directorships, as shown in Columns 1,3, 5, and 7.

In Columns 2 and 6, when focusing on the coefficient of Negative Votes%×Ln(1+ES Incidents), we do not find evidence suggesting that directors with higher negative votes are more inclined to leave their boards or outside directorships following ES incidents. However, when utilizing abnormal negative votes% to reflect additional dissent from shareholders directed at specific directors, the coefficient of the interaction term Abnormal Negative Votes%×Ln(1+ES Incidents) in Column 4 is positive and statistically significant at the 10% level. This suggests that directors are more likely to depart from firms facing heightened ES concerns after receiving more abnormal negative votes. This outcome implies that voting against directors may function as a mechanism for shareholders to prompt the departure of directors in response to ES incidents and to adjust the composition of the monitoring team.

To assess potential spillover effects on directors in outside labor markets, we analyze the influence of negative votes subsequent to ES incidents on directors' outside directorships. The results are presented in Table 6 Column 8. The insignificant coefficients of the interaction term Abnormal Negative Votes%×Ln(1+ES Incidents) indicate that the directors' outside board positions are not impacted by negative voting following major ES incidents at the significance level of 10%, suggesting there is no spillover impact on directors' outside labor market.

4.2 Shareholder Voting and Board Response

So far, we have presented evidence indicating that independent directors receive increased dissent votes during elections following major ES incidents. Furthermore, we have demonstrated that independent directors experiencing higher abnormal negative votes are more prone to leaving the board within the subsequent 12 months. However, we have not yet investigated whether boards respond to shareholder dissatisfaction. Therefore, in the following part, we aim to test whether boards take action in response to shareholder discontent following major ES incidents.

We posit several possible actions that a board may opt for in response to shareholders' negative votes. Firstly, boards might opt to implement ES-linked compensation. Directors' decisions regarding compensation can drive progress in corporate strategies aimed at addressing ES-related risks. Secondly, boards that lack a sustainability committee may establish an ES committee tasked with overseeing the firm's ES risks. Thirdly, boards may opt to appoint directors with expertise in charitable works to address investor dissatisfaction [Add more motivation for this action] (Gertsberg et al., 2023). Fourthly, boards could introduce new ES policies to provide additional guidelines for the management team to address ES risks. Lastly, boards may opt to dismiss a CEO[15] to hold them accountable for major ES incidents.

<div align="center">[Please insert Table 7 about here]</div>

In Table 7, we demonstrate how boards that experience higher negative votes subsequent to major ES incidents are more inclined to implement ES-linked compensation in the year following the shareholder meeting. Interestingly, these boards tend to prioritize incentives tied to short-term sustainability goals over long-term ones. To ensure the relevance of our findings, we focus on firms that had not integrated such incentives in the year before the ES incidents. The increased propensity of boards to adopt short-term pay over long-term compensation may underscore the pressing nature of addressing sustainability concerns.

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[15] Our forced CEO turnover data come from Gentry et al. (2021). We extend our gratitude to the team for providing the latest data up to the year 2021.

Regarding the remaining four potential actions, our analysis does not uncover significant evidence to suggest that boards are inclined to adopt them as a post-ES incident response.

4.3 Shareholder Voting and Firm Future ES Performance

Previous literature has demonstrated that both divestment and direct engagement can incentivize firms to enhance their sustainability performance (Dimson et al., 2015; Krueger et al., 2020; Gantchev et al., 2022; Becht et al., 2021; Hoepner et al., 2024). However, it remains unclear whether negative shareholder votes following ES incidents in director elections have a positive impact on the improvement of the firm's ES practices in the future.

To address the above question, we utilize two measures of the changes in firm ES policies following the approach of Gantchev et al. (2022). The first measurement involves examining the change in a firm's ES score over three years. We rely on Refinitiv ESG ratings to calculate the change in ES scores. While ES ratings can be susceptible to greenwashing behavior, utilizing ES scores can still help identify board efforts to enhance a firm's ES performance, as these scores capture the 'self-disclosure' aspect of their ES actions. Therefore, employing ES scores may provide insight into whether boards are actively striving to enhance their reputation to regain shareholder voting support.

Our second measure is an event-based metric of ES practice that could provide a more accurate description of the actions taken by companies to enhance their sustainability practices. Specifically, we use the average number of major ES incidents a firm experiences over three years following a shareholder meeting minus the number of major ES incidents that a firm experienced during the 12 months preceding the meeting. Companies with better ES policies should experience lower frequencies of major ES incidents.

[Please insert Table 8 about here]

Table 8 presents the results based on two metrics of future ES performance. Across all columns, the interaction terms are statistically insignificant, indicating that shareholders' external governance through voting in director elections may not effectively drive long-term

enhancements in companies' ES performance. This finding is consistent with our earlier results on director turnover, indicating that involvement in major ES incidents incurs penalties for independent directors at these affected firms, but not necessarily at other firms where these directors serve. This raises concerns about the effectiveness of such penalties as ex-ante incentives for directors to oversee firms' ES issues. Consequently, our findings indirectly support the need for strengthening alternative monitoring mechanisms, such as enhancing and standardizing the disclosure of ESG-related risks[16].

5 Additional Tests and Robustness Checks

5.1 Proxy Advisor——ISS Vote Against

Proxy advisory firms play a crucial role in the shareholder voting process by providing recommendations to investors on how to cast their votes in director elections and other significant corporate decisions. Therefore, understanding how firms' major sustainability incidents influence ISS recommendations is important. We focus on ISS since it is one of the largest proxy advisors, providing recommendations on director elections, and also extensively has been studied in previous literature (e.g., Iliev and Lowry, 2015; Gow et al., 2023).

[Please insert Table 9 about here]

The outcome variable now pertains to whether ISS provides a "Against" or "Withhold" recommendation for a director candidate. Consistent with our findings in Section 3, we observe in Table 9 that, on average, ISS is more likely to recommend against incumbent independent director candidates when firms experience more major ES incidents. Specifically, from Columns 4-6, we can conclude that the likelihood of ISS recommending an "Against" vote increases by 1.2% to 1.5% for a firm that has experienced at least one major ES incident

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one year before a shareholder meeting.

5.2   Director Attributes and Board Committees

In this section, we aim to understand whether shareholders target specific groups of directors following ES incidents. Firstly, we examine the heterogeneity in director voting outcomes across director attributes. The results are presented in Table 10 Panel A. The coefficient of Ln(1+ES Incidents)×Female Director(0/1) in Column 1 is 0.002 at the significance level of 1%, suggesting that female directors are more likely to receive abnormal negative votes compared to male directors when firms face higher ES risks. However, in our untabulated analysis, we find that without interaction with Ln(1+ES Incidents), female directors are less likely to receive negative votes, consistent with findings in Aggarwal et al. (2024). Our new finding here suggests that following major ES incidents, investors show more dissent towards female directors, holding them primarily liable for incidents related to sustainability concerns. Meanwhile, we do not observe the same pattern for older directors or directors with longer tenure on the board.

<center>[Please insert Table 10 about here]</center>

Next, we explore the heterogeneity in director voting outcomes across board committees. The results are presented in Table 10 Panel B. Overall, We do not observe statistically significant interactions of Ln(1+ES Incidents) with different committees at the 10% level, indicating that shareholders may not specifically hold directors on any particular committee responsible for ES incidents. This result may be due to some boards utilizing their committee structure to oversee sustainability risks, while others rely on the full board of directors. Alternatively, the insignificant results could stem from differing shareholder perspectives on director accountability, particularly across different firms. For instance, if shareholders believe that ES risk oversight falls under governance committees, they may target directors on those committees. Conversely, other shareholders in the same firm might perceive ES risks as part of risk management linked to financial performance and thus hold directors on

audit committees accountable. This example illustrates that director accountability can vary within a single firm, let alone across multiple firms. This finding underscores the importance of establishing guidelines to clarify board accountability for the newly raised issues.

5.3 Firm Location and Shareholder Voting

Despite ESG performance being a crucial tool for investors in assessing a company's long-term development, it has become increasingly politically polarized in recent years in the U.S.. The politicization of ES issues implies that when major ES incidents occur, companies located in Democratic counties may face heightened regulatory scrutiny, as local authorities may adopt a pro-ESG regulatory stance. As a result, investors may hold directors accountable for ES issues differently depending on the county where the firm is located. We hypothesize that, in anticipation of these heightened regulatory costs, investors may be more inclined to vote against boards of directors to incentivize improvements in sustainability performance.

To evaluate whether the political ideology of a firm's home county influences director election outcomes following major ES incidents, we identify the county of a firm's headquarters using the business address provided in the header of the firm's 10-K/Q filings. We procure the augmented 10-K/Q header data from The Notre Dame Software Repository for Accounting and Finance (SRAF)[17]. Subsequently, we utilize U.S. county-level electoral data from presidential elections spanning from 2004 to 2020 to determine whether a county leans Democratic or Republican.

[Please insert Table 11 about here]

Table 11 presents the OLS estimates. As shown in Column 1 and 2, the positive and statistically significant coefficients of Democratic(0/1)×Ln(1+ES Incidents) and Democratic(0/1)×ES Incident(0/1) indicate that directors in firms located in Democratic-leaning counties face notably increased disciplinary votes in response to more ES incidents. Overall, the results in Table 11 suggest that shareholders do vote differently following ES incidents based on where

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[17] The data is available at https://sraf.nd.edu/data/augmented-10-x-header-data/

the firm is located.

5.4   Sets of Robustness Checks

In this section, we aim to provide several additional robustness checks. Firstly, we employ an alternative methodology to proxy the negative vote percentage. Specifically, we calculate the percentage of funds that cast votes "Against" or "Withheld" in each director election[18]. For instance, if there are 100 funds voting in a particular annual meeting and 5 of them vote "Against" or "Withheld", we calculate the negative vote percentage as 5 divided by 100, which equals 5%. While the widely used measure, as mentioned in the main analysis, considers the number of voting rights held by both individual and institutional investors, the alternative measurement emphasizes the percentage of mutual funds voting negatively in director elections. Both variables offer valuable insights into how investors vote in director elections and reflect their dissatisfaction. We provide evidence that our results, indicating that independent directors are more likely to receive negative votes following increased ES incidents, remain robust using the alternative measurement, as shown in Table 12 Panel A.

Next, we substitute the count of ES incidents occurring within the 12 months preceding the shareholder meeting with data from a closer period, specifically one quarter before the meeting, to highlight the challenge firms face in determining the precise timing of ES incidents. Additionally, by utilizing ES incident data from the nearest quarter, we aim to compare the effects with those derived from a one-year period. As shown in Table 12 Panel B, the coefficients of Recent Ln(1+ES Incidents) from Columns 1-3 are greater than those in Columns 4-6 of Table 3, respectively, where we aggregate the numbers of ES incidents 12 months preceding the meeting. Our findings indicate that when firms experience a higher number of major ES incidents in a quarter preceding a particular shareholder meeting, the adverse impact of ES incidents on director election outcomes becomes more pronounced, particularly when aggregated over the 12-month period.

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[18] Similar constructions can be found in previous research. For example, Matvos and Ostrovsky (2010) and Gow et al. (2023) constructed the variable of institutional investor support using the percentage of funds voting 'For' on proposals.

[Please insert Table 12 about here]

Thirdly, we introduce additional controls into our regression analysis. The results are presented in Table 12 Panel C. We incorporate governance incidents that occurred during the same period as the ES incidents, as suggested by Gantchev et al. (2022). Additionally, in consideration of the significance of ISS recommendations (Cai et al. (2009); Aggarwal et al. (2019)), we introduce an additional control variable following the approach of Cai et al. (2009): Residual ISS Vote Against. This variable captures the residual in the ISS recommendation ("Against" or "Withhold") dummy after adjusting for other director and firm characteristics in the regression. It is also noteworthy that ISS ceased disclosing their recommendation data for the most recent two-year period in our sample. While this absence of two-year data could be notable given the increasing shareholder attention to ES issues in recent years, we include ISS recommendation data up to mid-2019 to ensure the robustness of our key findings. Importantly, our results remain consistent even with the inclusion of governance incidents and Residual ISS Vote Against as additional controls.

Lastly, we use the change in negative votes% as our outcome variable and the change in major ES incidents as our main explanatory variable. For this test, we also exclude firms with staggered boards. For firms with staggered boards, directors are usually up for election every three years, making it complicated to capture changes in the level of negative votes%. We also exclude several controls such as changes in director age, since it remains the same for every director as the year changes. The results are presented in Table 12 Panel D. The coefficients of Change in ES Incidents are positive and statistically significant, consistent with our main findings.

6 Conclusion

In this study, we address a critical question: Do shareholders vote against independent directors in response to major ES incidents? Utilizing data on a firm's ES incidents from RepRisk over the period 2007-2021, we find that in response to heightened concerns over a

firm's sustainability practices, shareholders do exercise their voting rights to express their discontent with independent directors, who serve as key guardians of shareholder interests. The impact of negative ES incidents on the outcomes of director elections intensifies when such incidents are financially material and novel to the firms. Also, climate change-related incidents and employee relation-related incidents are significantly associated with higher dissenting votes, suggesting that shareholders may react more strongly to these types of ES issues. We also show that shareholders do vote more against female directors and do not target a particular committee following major ES incidents. The finding indirectly supports the necessity of establishing clear board/committee accountability for addressing these new issues to effectively oversee sustainability initiatives.

Next, we investigate potential proactive measures boards can undertake to reduce shareholder dissent. We find that boards that proactively adopt incentives linked to long-term sustainability goals experience fewer dissenting votes. Regarding the consequences of shareholder votes on labor market outcomes for directors, our study reveals that an increase in abnormal negative votes following heightened ES risks is associated with a higher possibility of director turnover from the firm. However, we observe no spillover effect of abnormal negative voting outcomes on directors' outside board seats, suggesting the directors' labor market outcomes following ES incidents may not be severe. From the firms' perspective, we show that boards receiving more negative votes on average are more likely to adopt ES-linked compensation targeting short-term sustainability goals, reflecting the pressure to incentivize executives to actively contribute to restoring shareholder confidence post-ES incidents. However, from a long-term perspective, we find that negative votes do not lead to enhanced sustainability performance in three years following major ES incidents, indicating that external governance via director election voting may not effectively enhance a firm's sustainability practice. This finding underscores the importance of investors providing more comprehensive rationales for their voting decisions to facilitate significant improvements in firms' sustainability practices.

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Table 1. Summary Statistics

This table presents the summary statistics for a sample of **independent directors**, covering the period from 2007 to 2021. It includes the number of observations, mean, standard deviation, 25th percentile, median, and 75th percentile for each variable analyzed in the study. All continuous variables are winsorized at the 1st and 99th percentiles. Table A1 in Appendix A provides detailed variable definitions.

	N	mean	sd	p25	p50	p75
Voting Outcomes						
Negative Votes%	77408	0.044	0.069	0.009	0.020	0.043
Avg. Negative Votes%	14680	0.050	0.063	0.017	0.029	0.054
Number of Major E/S/ES Incidents						
Env Incidents	14680	0.341	1.257	0.000	0.000	0.000
Social Incidents	14680	0.557	1.768	0.000	0.000	0.000
ES Incidents	14680	0.623	1.957	0.000	0.000	0.000
Indicator of Major E/S/ES Incidents						
Env Incidents (0/1)	14680	0.125	0.330	0.000	0.000	0.000
Social Incidents (0/1)	14680	0.183	0.387	0.000	0.000	0.000
ES Incidents (0/1)	14680	0.192	0.394	0.000	0.000	0.000
Firm-level Controls						
Size	14680	8.309	1.686	7.075	8.162	9.403
ROA	14680	0.055	0.075	0.014	0.047	0.090
Stock Return	14680	0.124	0.384	-0.113	0.091	0.303
Ins. Ownership%	14680	0.832	0.149	0.744	0.855	0.934
E-Index	14680	3.632	0.731	3.000	4.000	4.000
Board-level Controls						
Board Size	14680	9.663	2.274	8.000	9.000	11.000
Board Non-Executive Directors (NED)%	14680	0.857	0.071	0.833	0.875	0.900
Board Male%	14680	0.822	0.115	0.750	0.833	0.900
Board Avg. Age	14680	63.704	3.790	61.341	63.728	66.000
CEO is Chairman (0/1)	14680	0.431	0.495	0.000	0.000	1.000
Director-level Controls						
Director Tenure	77408	7.977	6.551	2.900	6.300	11.400
Director Total Directorships	77408	3.450	2.571	1.000	3.000	5.000
Director Qualification	77408	2.227	1.068	2.000	2.000	3.000
Director Age	77408	63.342	7.872	58.500	63.600	68.700
Female Director (0/1)	77408	0.230	0.421	0.000	0.000	0.000

Table 2. ES Incidents and Shareholder Voting: Different Roles of Directors

The table presents regression analyses exploring the impact of shareholder voting against directors following major ES incidents, differentiated by director types. **Negative Votes%** is measured by the total aggregate votes that are cast "Against" or "Withhold" on a director as a fraction of the voting base. **Ln(1+ES Incidents)** is measured by the natural logarithm of one plus the total counts of major environmental incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Executive Director** is an indicator variable assigned a value of one if a director is an executive director of a firm; and zero, otherwise. **CEO** is An indicator variable assigned a value of one if a director is the CEO of a firm; and zero, otherwise. **Independent Director** is an indicator variable assigned a value of one if a director is an independent director of a firm; and zero, otherwise. The analysis controls for a comprehensive set of variables, including firm fundamentals (Size, ROA, Stock Return, Institutional Ownership%), board (E-Index, Board Size, Board NED%, Board Male%, Board Average Age, CEO-Chairman Duality), and directors' characteristics (Director Tenure, Director Total Directorships, Director Qualification, Director Age, Female Director Indicator). Table A1 in Appendix A provides detailed variable definitions. t-statistics are calculated from robust standard errors clustered at the firm level and are provided in parentheses. All continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
			Negative Votes%			
Ln(1+ES Incidents)	0.003**	0.003**	0.007***	0.001	0.001	0.007***
	(2.291)	(2.329)	(4.972)	(1.100)	(1.112)	(4.774)
Executive Director	-0.012***			-0.012***		
	(-13.745)			(-13.778)		
Ln(1+ES Incidents)×Executive Director	**0.007***			**0.007***		
	(6.516)			**(7.088)**		
CEO		-0.014***			-0.013***	
		(-16.330)			(-16.335)	
Ln(1+ES Incidents)×CEO		**0.009***			**0.009***	
		(8.570)			**(8.409)**	
Independent Director			0.008***			0.010***
			(8.056)			(11.495)
Ln(1+ES Incidents)×Independent Director			**-0.004***			**-0.005***
			(-3.326)			**(-5.403)**
Firm-level Controls	✓	✓	✓	✓	✓	✓
Board-level Controls	✓	✓	✓	✓	✓	✓
Director-level Controls	✓	✓	✓	✓	✓	✓
Firm FE				✓	✓	✓
Ind-by-year FE	✓	✓	✓	✓	✓	✓
Observations	95,999	95,999	95,999	95,999	95,999	95,999
Adjusted R-squared	0.107	0.107	0.105	0.293	0.293	0.293

Table 3. Shareholder Voting on Independent Director

The table narrows the sample to a subset of independent directors who are recognized primarily as firm monitors. **Negative Votes%** refers to the total aggregate votes that are cast "Against" or "Withhold" on a director as a fraction of the voting base. **Ln(1+ES Incidents)** is measured by the natural logarithm of one plus the total counts of major environmental or/and social incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **ES Incident(0/1)** is an indicator variable assigned a value of one if a firm experienced at least one major environmental or/and social incident during the 12 months preceding the annual meeting; and zero, otherwise. The analysis controls for a comprehensive set of variables, including firm fundamentals (Size, ROA, Stock Return, Institutional Ownership%), board (E-Index, Board Size, Board NED%, Board Male%, Board Average Age, CEO-Chairman Duality), and directors' characteristics (Director Tenure, Director Total Directorships, Director Qualification, Director Age, Female Director Indicator). Panel A shows the baseline finding without a matching approach and Panel B employs two matching approaches. Table A1 in Appendix A provides detailed variable definitions. *t*-statistics are calculated from robust standard errors clustered at the firm level and are provided in parentheses. All continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

Panel A: Baseline Regression

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES			Negative	Votes%		
Ln(1+ES Incidents)	0.004***	0.002*	0.002*			
	(2.986)	(1.831)	(1.750)			
ES Incident(0/1)				0.004**	0.002*	0.002**
				(2.550)	(1.881)	(2.063)
Size	-0.002***	0.003	-0.002***	-0.002***	0.003	-0.002***
	(-3.391)	(1.252)	(-2.892)	(-3.137)	(1.249)	(-2.934)
ROA	-0.041***	-0.025**	-0.041***	-0.041***	-0.025**	-0.041***
	(-4.594)	(-2.294)	(-4.540)	(-4.623)	(-2.296)	(-4.549)
Stock Return	-0.004***	-0.006***	-0.006***	-0.004***	-0.006***	-0.006***
	(-3.296)	(-5.477)	(-4.568)	(-3.293)	(-5.489)	(-4.558)
Ins. Ownership%	-0.022***	-0.029***	-0.020***	-0.023***	-0.029***	-0.020***
	(-3.821)	(-2.824)	(-2.956)	(-4.035)	(-2.833)	(-2.991)
E-Index	0.007***	0.006***	0.005***	0.007***	0.006***	0.005***
	(6.274)	(4.903)	(5.163)	(6.104)	(4.922)	(5.146)
Board Size	-0.002***	-0.001	-0.001***	-0.002***	-0.001	-0.001***
	(-4.628)	(-1.495)	(-2.725)	(-4.660)	(-1.492)	(-2.752)
Board NED%	-0.051***	-0.004	-0.002	-0.051***	-0.004	-0.002
	(-3.159)	(-0.225)	(-0.158)	(-3.131)	(-0.227)	(-0.160)
Board Male%	0.057***	0.046***	0.048***	0.058***	0.046***	0.048***
	(7.125)	(5.005)	(6.404)	(7.131)	(5.003)	(6.398)
Board Avg. Age	0.000	0.001***	0.001***	0.000	0.001***	0.001***
	(0.656)	(2.730)	(2.877)	(0.623)	(2.730)	(2.878)
CEO is Chairman	0.003*	0.002	0.002	0.003*	0.002	0.002
	(1.754)	(0.982)	(1.579)	(1.760)	(0.978)	(1.579)
Director Tenure	0.001***	0.002***	0.001***	0.001***	0.002***	0.001***
	(18.471)	(24.202)	(8.612)	(18.402)	(24.209)	(8.596)

Director Total Directorships	0.002***	0.002***	0.004***	0.002***	0.002***	0.004***
	(11.414)	(14.966)	(5.102)	(11.436)	(14.960)	(5.105)
Director Qualification	-0.001*	-0.000	0.006	-0.001*	-0.000	0.006
	(-1.712)	(-0.605)	(0.598)	(-1.701)	(-0.619)	(0.597)
Director Age	-0.000	-0.000***	-0.002**	-0.000	-0.000***	-0.002**
	(-1.264)	(-2.631)	(-2.407)	(-1.246)	(-2.624)	(-2.472)
Female Director	-0.004***	-0.004***		-0.004***	-0.004***	
	(-6.221)	(-6.967)		(-6.235)	(-6.973)	
Director FE			✓			✓
Firm FE		✓			✓	
Ind-by-year FE	✓	✓	✓	✓	✓	✓
Observations	77,408	77,408	74,315	77,408	77,408	74,315
Adjusted R-squared	0.113	0.303	0.359	0.113	0.303	0.359

Panel B: Entropy Balance Approach and Propensity Score Matching

	Entropy Balance Approach		Propensity Score Matching (PSM)	
	(1)	(2)	(3)	(4)
VARIABLES	Negative Votes%			
ES Incident(0/1)	**0.003****	**0.002****	**0.004***	**0.006****
	(2.107)	**(2.138)**	**(1.797)**	**(2.576)**
Firm-level Controls	✓	✓	✓	✓
Board-level Controls	✓	✓	✓	✓
Director-level Controls	✓	✓	✓	✓
Director FE		✓		✓
Firm FE	✓		✓	
Ind-by-year FE	✓	✓	✓	✓
Observations	77,408	74,315	40,827	39,062
Adjusted R-squared/Pseudo R-squared	0.298	0.405	0.507	0.739

Table 4. Heterogeneity in Environmental and Social Incidents

The table focuses exclusively on independent directors, providing regression analyses on the impact of diverse characteristics of environmental and social incidents on shareholder voting regarding directors in **PanelA**, and the impact of different types of environmental and social incidents on shareholder voting regarding directors in **PanelB**. **Negative Votes%** is measured by the total aggregate votes that are cast "Against" or "Withhold" on a director as a fraction of the voting base. **Ln(1+Material ES Incidents)** quantifies financially material ES incidents recorded in the 12 months preceding a particular shareholder meeting, while **Ln(1+Immaterial ES Incidents)** counts the financially immaterial ES incidents recorded in the 12 months preceding a particular shareholder meeting. Further, leveraging the RepRisk classification, we assess the novelty(**Novel**) and extent(**Reach**) of ES incidents to explore their varied effects. Novelty(**Novel**), categorized as either "high" or "low," evaluates if the firm has encountered similar issues within the same country before. The extent(**Reach**) of an incident is captured by the coverage scope of the news agency reporting on the event. All specifications control for firm-fundamental variables, board characteristics, director characteristics, and firm and industry-by-year-fixed effects. Table A1 in Appendix A provides detailed variable definitions. t-statistics are calculated from robust standard errors clustered at the firm level and are provided in parentheses. All continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

Panel A: Different ES Incident Characteristics

VARIABLES	(1)	(2)	(3)	(4)	(5) Negative Votes%	(6)	(7)	(8)	(9)
Ln(1+Material ES Incidents)	0.003** (2.140)		0.002** (2.029)						
Ln(1+Immaterial ES Incidents)		0.002 (1.133)	0.002 (0.992)						
Ln(1+Novel ES Incidents)				0.002** (2.004)		0.002* (1.948)			
Ln(1+Non-novel ES Incidents)					0.001 (0.689)	0.001 (0.481)			
Ln(1+Reach ES Incidents)							0.001 (1.145)		0.001 (0.793)
Ln(1+Non-reach ES Incidents)								0.002 (1.630)	0.002 (1.439)
Firm-level Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓
Board-level Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓
Director-level Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓
Firm FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ind-by-year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	77,408	77,408	77,408	77,408	77,408	77,408	77,408	77,408	77,408
Adjusted R-squared	0.303	0.303	0.303	0.303	0.303	0.303	0.303	0.303	0.303

Panel B: Different ES Incident Types

Dep. Variable Negative Votes%	(1)	(2)	(3)	(4)	(5)	(6)
Environmental	**Animal Mistreat**	**GHG Emissions**	**Ecological Impact**	**Local Pollution**	**Resource Overuse**	**Waste Management**
	0.001	**0.005****	**0.002***	0.002	-0.005	-0.000
	(0.185)	**(2.418)**	**(1.750)**	(1.119)	(-1.397)	(-0.061)
Firm-level Controls	✓	✓	✓	✓	✓	✓
Board-level Controls	✓	✓	✓	✓	✓	✓
Director-level Controls	✓	✓	✓	✓	✓	✓
Firm FE	✓	✓	✓	✓	✓	✓
Ind-by-year FE	✓	✓	✓	✓	✓	✓
Observations	77,408	77,408	77,408	77,408	77,408	77,408
Adjusted R-squared	0.303	0.303	0.303	0.303	0.303	0.303

Social	**Child Labor**	**Discrimination**	**Forced Labor**	**Labor Rights**	**Human Rights**	**Community**
	0.005*	**0.006****	**0.004***	0.003	**0.003***	0.001
	(1.874)	**(2.463)**	**(1.766)**	(1.086)	**(1.940)**	(0.443)
Firm-level Controls	✓	✓	✓	✓	✓	✓
Board-level Controls	✓	✓	✓	✓	✓	✓
Director-level Controls	✓	✓	✓	✓	✓	✓
Firm FE	✓	✓	✓	✓	✓	✓
Ind-by-year FE	✓	✓	✓	✓	✓	✓
Observations	77,408	77,408	77,408	77,408	77,408	77,408
Adjusted R-squared	0.303	0.303	0.303	0.303	0.303	0.303

Social	**Local Participation**	**Workplace Safety**	**Poor Emp. Environment**	**Social Discrimination**
	-0.001	0.000	**0.003***	0.000
	(-0.337)	(0.154)	**(1.691)**	(0.112)
Firm-level Controls	✓	✓	✓	✓
Board-level Controls	✓	✓	✓	✓
Director-level Controls	✓	✓	✓	✓
Firm FE	✓	✓	✓	✓
Ind-by-year FE	✓	✓	✓	✓
Observations	77,408	77,408	77,408	77,408
Adjusted R-squared	0.303	0.303	0.303	0.303

Table 5. Shareholder Voting Conditional on Board Proactive ES Strategies

This table presents how proactive board strategies regarding environmental and social practices may affect the impact of significant ES risk events on shareholder voting behavior on boards of directors. The dependent variable, **Avg. Negative Votes%** is the average percentage of Negative Votes% of incumbent independent director candidates within a board. **ES-linked Pay(0/1)** is an indicator variable assigned a value of one if a board instituted incentive linked to environmental and social goals for executives one year before the incident year, and zero, otherwise. **LT ES-linked Pay(0/1)** is an indicator variable assigned a value of one if a board instituted long-term incentive linked to environmental and social goals for executives one year before the incident year, and zero, otherwise. Similarly, **ST ES-linked Pay(0/1)** is an indicator variable assigned a value of one if a board instituted short-term incentive linked to environmental and social goals for executives one year before the incident year, and zero, otherwise. **ES Committee(0/1)** is an indicator variable assigned a value of one if a board had an ES committee to oversee the firm's sustainability practices one year before the incident year; and zero, otherwise. **Enhanced ES Policy(0/1)** is an indicator variable that is set to one if a board adopted a greater number of environmental and social goals policies (as tracked by Refinitiv ESG and follow Amiraslani et al. (2023)) relative to its industry peers within the same year and measured during one year before the incident year; and zero, otherwise. All specifications control for firm-fundamental variables, board characteristics, and firm and industry-by-year-fixed effects. Table A1 in Appendix A provides detailed variable definitions. t-statistics are calculated from robust standard errors clustered at the firm level and are provided in parentheses. All continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
			Avg. Negative Votes%			
Ln(1+ES Incidents)	0.002*	0.002	0.002	0.002*	0.002	0.001
	(1.727)	(1.632)	(1.586)	(1.715)	(0.894)	(0.661)
ES-linked Pay(0/1)	0.005**					
	(1.972)					
Ln(1+ES Incidents)×ES-linked Pay(0/1)	-0.003					
	(-1.376)					
ST ES-linked Pay(0/1)		0.006**		0.006**		
		(2.098)		(2.030)		
Ln(1+ES Incidents)×ST ES-linked Pay(0/1)		-0.002		-0.002		
		(-1.096)		(-0.886)		
LT ES-linked Pay(0/1)			0.001	0.000		
			(0.147)	(0.059)		
Ln(1+ES Incidents)×LT ES-linked Pay(0/1)			**-0.010****	**-0.009****		
			(-2.336)	**(-2.189)**		
ES Committee(0/1)					-0.001	
					(-0.498)	
Ln(1+ES Incidents)×ES Committee(0/1)					-0.001	
					(-0.346)	
Enhanced ES Policy(0/1)						0.001
						(0.611)
Ln(1+ES Incidents)×Enhanced ES Policy(0/1)						0.001
						(0.312)
Firm-level Controls	✓	✓	✓	✓	✓	✓
Board-level Controls	✓	✓	✓	✓	✓	✓
Firm FE	✓	✓	✓	✓	✓	✓
Ind-by-year FE	✓	✓	✓	✓	✓	✓
Observations	9,486	9,486	9,486	9,486	9,313	10,519
Adjusted R-squared	0.479	0.479	0.479	0.479	0.450	0.446

Table 6. Shareholder Votes and Director Turnover

The table presents the regression results that investigate the impact of shareholder voting on director labor market outcomes following major ES incidents. **Negative Votes%** is measured by the total aggregate votes that are cast "Against" or "Withhold" on a director as a fraction of the voting base. **Abnormal Negative Votes%** refers to a director's Negative Votes% minus the average percentage of negative votes received by all incumbent directors who are participating in the same election. **Ln(1+ES Incidents)** is measured by the natural logarithm of one plus the total counts of major environmental or/and social incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Director Turnover** is defined as an indicator set to one if a director exits the board within one year after the shareholder meeting and zero otherwise. In Columns 3 and 4, the analysis shifts to **Depart Outside Board**, an indicator that equals one if a director leaves a board of another organization where they serve, within a year following the shareholder meeting and zero otherwise. We only include independent directors who are 72 and younger in this analysis, to ensure their departures are not due to mandatory retirement. All specifications control for firm-fundamental variables, board characteristics, directors' characteristics, firm and industry-by-year-fixed effects. Table A1 in Appendix A provides detailed variable definitions. t-statistics are calculated from robust standard errors clustered at the firm level and are provided in parentheses. All continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Director Turnover				Depart Outside Board			
Negative Votes%	0.097***	0.079***			0.035***	0.032***		
	(4.413)	(3.537)			(3.565)	(3.182)		
Ln(1+ES Incidents)		0.004				0.001		
		(1.120)				(0.604)		
Negative Votes%×Ln(1+ES Incidents)		0.070				0.011		
		(1.434)				(0.554)		
Abnormal Negative Votes%			0.048**	0.027			0.031**	0.022
			(2.220)	(1.184)			(2.303)	(1.508)
Ln(1+ES Incidents)				0.007**				0.002
				(2.189)				(1.048)
Abnormal Negative Votes%×Ln(1+ES Incidents)				0.081*				0.039
				(1.914)				(1.583)
Firm-level Controls	✓	✓	✓	✓	✓	✓	✓	✓
Board-level Controls	✓	✓	✓	✓	✓	✓	✓	✓
Director-level Controls	✓	✓	✓	✓	✓	✓	✓	✓
Ind-by-year FE	✓	✓	✓	✓	✓	✓	✓	✓
Observations	67,676	67,676	67,676	67,676	67,676	67,676	67,676	67,676
Adjusted R-squared	0.521	0.521	0.521	0.521	0.183	0.183	0.183	0.183

Table 7. Shareholder Votes and Board Response

The table reports regression results for board-level response to shareholder dissent following major ES incidents. **Adopt ES-linked Pay (0/1)** is an indicator variable assigned a value of one if a board instituted compensation linked to environmental and social goals for executives in the year following a particular shareholder meeting; and zero, otherwise. **Adopt ST ES-linked Pay (0/1)** is an indicator variable assigned a value of one if a board instituted a short-term incentive linked to environmental and social goals for executives in the year following a particular shareholder meeting; and zero, otherwise. **Adopt LT ES-linked Pay (0/1)** is an indicator variable assigned a value of one if a board instituted a long-term incentive linked to environmental and social goals for executives in the year following a particular shareholder meeting; and zero, otherwise. **Set up ES Committee(0/1)** is an indicator variable assigned a value of one if a board had an ES committee to oversee the firm's sustainability practices in the year following a particular shareholder meeting; and zero, otherwise. **Hire New Charity Dir(0/1)** is an indicator variable assigned a value of one if a board hires new directors who have charity experience in the year following a particular shareholder meeting; and zero, otherwise. **Add New ES Policies(0/1)** is an indicator variable assigned a value of one if a board implements more ES-related policies in the year following a particular shareholder meeting; and zero, otherwise. **CEO Forced TO(0/1)** is an indicator variable assigned a value of one if there is a forced-CEO turnover in the year following a particular shareholder meeting; and zero, otherwise. All specifications control for firm-fundamental variables, board characteristics, and firm and industry-by-year-fixed effects. Table A1 in Appendix A provides detailed variable definitions. t-statistics are calculated from robust standard errors clustered at the firm level and are provided in parentheses. All continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

VARIABLES	(1) Adopt ES-linked Pay(0/1)	(2) Adopt ST ES-linked Pay(0/1)	(3) Adopt LT ES-linked Pay(0/1)
Ln(1+ES Incidents)	-0.000	0.001	0.000
	(-0.013)	(0.088)	(0.074)
Avg. Negative Votes%	-0.093*	-0.084	-0.002
	(-1.761)	(-1.628)	(-0.122)
Avg. Negative Votes%×Ln(1+ES Incidents)	**0.218***	**0.216***	-0.016
	(1.900)	**(1.886)**	(-0.640)
Firm-level Controls	✓	✓	✓
Board-level Controls	✓	✓	✓
Ind-by-year FE	✓	✓	✓
Observations	6,462	6,502	7,356
Adjusted R-squared	0.070	0.065	-0.004

VARIABLES	(4) Set up ES Committee(0/1)	(5) Hire New Charity Dir(0/1)	(6) Add New ES Policies(0/1)	(7) CEO Forced TO(0/1)
Ln(1+ES Incidents)	0.014	0.006	-0.276**	0.019***
	(0.650)	(0.919)	(-2.346)	(3.950)
Avg. Negative Votes%	-0.093	0.186***	1.294	0.067***
	(-1.162)	(3.856)	(1.469)	(2.696)
Avg. Negative Votes%×Ln(1+ES Incidents)	0.300	-0.068	-1.168	-0.066
	(1.249)	(-0.750)	(-0.778)	(-1.076)
Firm-level Controls	✓	✓	✓	✓
Board-level Controls	✓	✓	✓	✓
Ind-by-year FE	✓	✓	✓	✓
Observations	5,147	14,810	10,629	14,737
Adjusted R-squared	0.131	0.069	0.256	0.011

Table 8. Shareholder Votes and Future ES Performance

The table presents the regression results that investigate the impact of shareholder voting on director elections after major ES Incidents on future ES practice. We follow Gantchev et al. (2022) and use the change in ES rating from Refinitiv and changes in the frequency of ES incidents from RepRisk. **3yr Change in ES Score** is measured by the change in a firm's ES Score from year t to year t+3 following a particular shareholder meeting. **3yr Avg. ES Incidents** is measured by the average number of major ES incidents a firm experiences over three years following a shareholder meeting. **Avg. Negative Votes%**, represents the average percentage of **Negative Votes%** received by independent directors during a specific shareholder meeting. **Ln(1+ES Incidents)** is measured by the natural logarithm of one plus the total counts of major environmental or/and social incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. All specifications control for firm-fundamental variables, board characteristics, firm-fixed effects, and industry-by-year-fixed effects. Table A1 in Appendix A provides detailed variable definitions. *t*-statistics are calculated from robust standard errors clustered at the firm level and are provided in parentheses. All continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

VARIABLES	(1)	(2)	(3)	(4)
	3yr Change in ES Score		3yr Avg. ES Incidents	
Avg. Negative Votes%	-0.033	-0.001	-0.108	0.110
	(-0.996)	(-0.040)	(0.590)	(0.548)
Ln(1+ES Incidents)	-0.014***	-0.004	0.874***	0.052*
	(-3.381)	(-0.822)	(0.050)	(0.027)
Avg. Negative Votes%×Ln(1+ES Incidents)	0.030	-0.037	-0.006	0.024
	(0.662)	(-0.838)	(0.303)	(0.258)
Firm-level Controls	✓	✓	✓	✓
Board-level Controls	✓	✓	✓	✓
Firm FE		✓		✓
Ind-by-year FE	✓	✓	✓	✓
Observations	8,015	7,814	10,447	5,335
Adjusted R-squared/Pseudo R2	0.115	0.289	0.625	0.609

Table 9. Proxy Advisor Vote Against

The table presents the regression results that investigate the impact of major ES Incidents on ISS voting recommendation on director election proposals. **ISS Vote Against(0/1)** is an indicator variable that is set to one if ISS vote "Against" or "Withhold" on a particular director election proposal; and zero, otherwise. **Ln(1+ES Incidents)** is measured by the natural logarithm of one plus the total counts of major environmental or/and social incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **ES Incident(0/1)** is an indicator variable assigned a value of one if a firm experienced at least one major environmental or/and social incident during the 12 months preceding the annual meeting; and zero, otherwise. The analysis controls for a comprehensive set of variables, including firm fundamentals, board, and directors' characteristics. Table A1 in Appendix A provides detailed variable definitions. t-statistics are calculated from robust standard errors clustered at the firm level and are provided in parentheses. All continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
			ISS Vote Against(0/1)			
Ln(1+ES Incidents)	0.014***	0.008	0.008**			
	(2.651)	(1.606)	(1.967)			
ES Incident(0/1)				0.015**	0.013**	0.012**
				(2.316)	(2.458)	(2.344)
Size	-0.009***	-0.001	-0.011***	-0.009***	-0.001	-0.011***
	(-3.987)	(-0.133)	(-3.807)	(-3.769)	(-0.175)	(-3.850)
ROA	-0.072**	-0.033	-0.037	-0.072**	-0.033	-0.037
	(-2.203)	(-0.796)	(-0.987)	(-2.230)	(-0.791)	(-0.996)
Stock Return	-0.011**	-0.016***	-0.016***	-0.011**	-0.016***	-0.015***
	(-2.369)	(-3.299)	(-2.779)	(-2.354)	(-3.279)	(-2.758)
Ins. Ownership%	-0.075***	-0.008	-0.031	-0.078***	-0.007	-0.032
	(-3.555)	(-0.213)	(-1.283)	(-3.748)	(-0.203)	(-1.304)
E-Index	0.011***	0.015***	0.009***	0.011***	0.015***	0.009***
	(3.135)	(3.496)	(2.743)	(3.003)	(3.515)	(2.731)
Board Size	-0.002	0.001	0.001	-0.002	0.001	0.001
	(-1.224)	(0.485)	(0.379)	(-1.244)	(0.486)	(0.352)
Board NED%	-0.180***	0.010	-0.056	-0.177***	0.009	-0.056
	(-3.158)	(0.160)	(-1.031)	(-3.124)	(0.155)	(-1.031)
Board Male%	0.075**	0.064*	0.103***	0.077**	0.063*	0.103***
	(2.438)	(1.829)	(3.599)	(2.496)	(1.814)	(3.598)
Board Avg. Age	-0.000	0.001	0.000	-0.000	0.001	0.000
	(-0.108)	(0.710)	(0.137)	(-0.132)	(0.723)	(0.146)
CEO is Chairman	0.004	0.005	0.009	0.004	0.005	0.009
	(0.753)	(0.678)	(1.464)	(0.746)	(0.682)	(1.453)
Director Tenure	0.001***	0.001***	-0.001	0.001***	0.001***	-0.001
	(3.014)	(5.490)	(-1.536)	(2.957)	(5.487)	(-1.561)
Director Total Directorships	0.000	0.001	0.002	0.000	0.001	0.002
	(0.324)	(1.347)	(0.913)	(0.378)	(1.347)	(0.899)
Director Qualification	-0.002*	-0.000	-0.004	-0.002*	-0.000	-0.004
	(-1.756)	(-0.527)	(-0.151)	(-1.747)	(-0.539)	(-0.151)
Director Age	0.000	-0.000	-0.003	0.000	-0.000	-0.003
	(0.307)	(-1.187)	(-1.089)	(0.320)	(-1.181)	(-1.197)
Female Director	-0.005**	-0.005**		-0.005**	-0.005**	
	(-2.223)	(-2.504)		(-2.242)	(-2.514)	
Director FE			✓			✓
Firm FE		✓			✓	
Ind-by-year FE	✓	✓	✓	✓	✓	✓
Observations	54,975	54,965	52,371	54,975	54,965	52,371
Adjusted R-squared	0.076	0.267	0.305	0.075	0.267	0.305

Table 10. Director Attributes and Board Committees

The table presents regression results investigating the heterogeneous effects of ES incidents on director voting outcomes across various director attributes and across various board committees. The variable **Female Director (0/1)** is an indicator assigned a value of one if the director is female, and zero otherwise. **Director Age** represents the age of the director, while **Director Tenure** indicates the director's duration of service on the board. **Chair (0/1)** is an indicator variable assigned a value of one if the director serves as chairman of the board, and zero otherwise. **Compensation/Audit/Nomination/Governance/ES (0/1)** is an indicator variable assigned a value of one if the director serves on the Compensation, Audit, Nomination, Governance, or ES committee within a firm, and zero otherwise. All specifications control for firm-fundamental variables, board characteristics, and director traits. Firm and industry-by-year fixed effects are included. Table A1 in Appendix A provides detailed variable definitions. t-statistics are calculated from robust standard errors clustered at the firm level and are provided in parentheses. All continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

Panel A: Heterogeneity in Director Voting Outcomes Across Director Attributes

VARIABLES	(1)	(2)	(3)
	Abnormal Negative Votes%		
Ln(1+ES Incidents)	-0.000	0.001	0.000
	(-1.086)	(0.171)	(0.174)
Female Director(0/1)	-0.005***	-0.004***	-0.004***
	(-7.713)	(-7.571)	(-7.543)
Ln(1+ES Incidents)×Female Director(0/1)	**0.002***		
	(2.734)		
Director Age	-0.000**	-0.000**	-0.000**
	(-2.423)	(-2.215)	(-2.407)
Ln(1+ES Incidents)×Director Age		-0.000	
		(-0.163)	
Director Tenure	0.002***	0.002***	0.002***
	(25.970)	(26.068)	(24.482)
Ln(1+ES Incidents)×Director Tenure			-0.000
			(-0.156)
Firm-level Controls	✓	✓	✓
Board-level Controls	✓	✓	✓
Director-level Controls	✓	✓	✓
Firm FE	✓	✓	✓
Ind-by-year FE	✓	✓	✓
Observations	77,408	77,408	77,408
Adjusted R-squared	0.111	0.111	0.111

Panel B: Heterogeneity in Director Voting Outcomes Across Board Committees

VARIABLES	(1)	(2)	(3)
	Abnormal Negative Votes%		
Ln(1+ES Incidents)	-0.000	0.001	0.001
	(-0.180)	(0.961)	(1.002)
Chair(0/1)	0.002		
	(1.401)		
Ln(1+ES Incidents)×Chair (0/1)	0.004		
	(1.370)		
Compensation(0/1)		0.009***	0.009***
		(10.321)	(10.351)
Ln(1+ES Incidents)×Compensation(0/1)		0.001	0.001
		(0.894)	(0.898)
Audit(0/1)		-0.002**	-0.002**
		(-2.052)	(-2.019)
Ln(1+ES Incidents)×Audit(0/1)		-0.000	-0.000
		(-0.595)	(-0.601)
Nomination(0/1)		0.008***	0.008***
		(4.278)	(4.284)
Ln(1+ES Incidents)×Nomination(0/1)		-0.001	-0.001
		(-0.685)	(-0.692)
Governance(0/1)		0.006***	0.006***
		(3.730)	(3.715)
Ln(1+ES Incidents)×Governance(0/1)		-0.001	-0.001
		(-1.064)	(-1.052)
Sustainability(0/1)			0.001
			(0.730)
Ln(1+ES Incidents)×Sustainability(0/1)			-0.000
			(-0.444)
Firm-level Controls	✓	✓	✓
Board-level Controls	✓	✓	✓
Director-level Controls	✓	✓	✓
Firm FE	✓	✓	✓
Ind-by-year FE	✓	✓	✓
Observations	77,408	77,408	77,408
Adjusted R-squared	0.111	0.131	0.131

Table 11. Firm Location and Shareholder Voting

The table presents regression analyses exploring the impact of firm location on shareholder voting against directors following environmental and social (ES) incidents. **Negative Votes%** is measured by the total aggregate votes that are cast "Against" or "Withhold" on a director as a fraction of the voting base. **Ln(1+ES Incidents)** is measured by the natural logarithm of one plus the total counts of major environmental incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **ES Incident(0/1)** is an indicator variable assigned a value of one if a firm experienced at least one major environmental or/and social incident during the 12 months preceding the annual meeting; and zero, otherwise. **Democratic(0/1)** is an indicator variable assigned a value of one if a firm is located in a county that supported the Democratic Party in the most recent presidential election, and zero otherwise. The analysis controls for a comprehensive set of variables, including firm fundamentals, board, and directors' characteristics. Table A1 in Appendix A provides detailed variable definitions. t-statistics are calculated from robust standard errors clustered at the firm level and are provided in parentheses. All continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

VARIABLES	(1)	(2)
	Negative Votes%	
Ln(1+ES Incidents)	-0.001	
	(-0.584)	
Democratic(0/1)	0.004**	0.004**
	(2.039)	(1.982)
Democratic(0/1)×Ln(1+ES Incidents)	**0.005***	
	(1.823)	
ES Incident(0/1)		-0.002
		(-0.659)
Democratic(0/1)×ES Incident(0/1)		**0.006***
		(1.817)
Firm-level Controls	✓	✓
Board-level Controls	✓	✓
Director-level Controls	✓	✓
Ind-by-year FE	✓	✓
Observations	48,956	48,956
Adjusted R-squared	0.127	0.127

Table 12. Robustness Checks

This table replicates our main results using alternative measures and adding more controlling factors as robustness analysis. **Negative Votes%** refers to the total aggregate votes that are cast "Against" or "Withhold" on a director as a fraction of the voting base. **Ln(1+ES Incidents)** is measured by the natural logarithm of one plus the total counts of major environmental or/and social incidents that a firm experienced during the 12 months preceding the annual meeting. **Lag 3 month Ln(1+ES Incidents)** is measured by the natural logarithm of one plus the total counts of major environmental or/and social incidents that a firm experienced during the 3 months preceding the annual meeting. **Ln(1+G Incidents)** is measured by the natural logarithm of one plus the total counts of major governance incidents that a firm experienced during the 12 months preceding the annual meeting. All specifications control for firm-fundamental variables, board characteristics, director characteristics, and firm and industry-by-year-fixed effects. Table A1 in Appendix A provides detailed variable definitions. *t*-statistics are calculated from robust standard errors clustered at the firm level and are provided in parentheses. All continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

Panel A: Alternative Voting Outcome Variable

VARIABLES	(1)	(2)	(3)
		Ins. Negative Votes%	
Ln(1+ES Incidents)	0.005**	0.004**	0.004**
	(2.127)	(2.238)	(2.334)
Firm-level Controls	✓	✓	✓
Board-level Controls	✓	✓	✓
Director-level Controls	✓	✓	✓
Director FE			✓
Firm FE		✓	
Ind-by-year FE	✓	✓	✓
Observations	76,911	76,910	73,837
Adjusted R-squared	0.104	0.326	0.375

Panel B: Recent ES Incidents (3 Months preceding Shareholder Meeting)

VARIABLES	(1)	(2)	(3)
		Negative Votes%	
Lag 3 month Ln(1+ES Incidents)	0.006***	0.004**	0.004***
	(3.430)	(2.135)	(2.630)
Firm-level Controls	✓	✓	✓
Board-level Controls	✓	✓	✓
Director-level Controls	✓	✓	✓
Director FE			✓
Firm FE		✓	
Ind-by-year FE	✓	✓	✓
Observations	77,408	77,408	74,315
Adjusted R-squared	0.113	0.303	0.359

Panel C: Adding More Controls

VARIABLES	(1)	(2)	(3)
		Negative Votes%	
Ln(1+ES Incidents)	**0.004****	**0.002***	**0.002****
	(2.122)	**(1.710)**	**(2.090)**
Ln(1+G Incidents)	0.002	0.002*	0.001
	(0.879)	(1.653)	(0.645)
Residual ISS Vote Against	0.229***	0.234***	0.232***
	(43.035)	(46.252)	(41.807)
Firm-level Controls	✓	✓	✓
Board-level Controls	✓	✓	✓
Director-level Controls	✓	✓	✓
Director FE			✓
Firm FE		✓	
Ind-by-year FE	✓	✓	✓
Observations	54,971	54,965	52,369
Adjusted R-squared	0.471	0.670	0.685

Panel D: Change in Negative Votes

VARIABLES	(1)	(2)	(3)
		Change in Negative Votes%	
Change in ES Incidents	**0.001***	**0.001***	**0.001***
	(1.734)	**(1.720)**	**(1.754)**
Change in Size	0.003	0.006	0.005
	(1.135)	(1.537)	(1.172)
Change in ROA	-0.036**	-0.043**	-0.041**
	(-2.188)	(-2.424)	(-1.996)
Change in Stock Return	-0.006***	-0.007***	-0.006***
	(-3.732)	(-3.715)	(-3.333)
Change in Ins. Ownership%	-0.053***	-0.046**	-0.052**
	(-3.002)	(-2.266)	(-2.226)
Change in E-index	0.002	0.001	0.001
	(0.897)	(0.592)	(0.418)
Change in Board Size	0.034***	0.033***	0.035***
	(3.216)	(2.848)	(2.686)
Change in Board NED%	-0.001**	-0.001*	-0.001*
	(-1.966)	(-1.863)	(-1.741)
Change in Board Male%	0.015	0.024	0.020
	(0.835)	(1.241)	(0.925)
Change in CEO-Chair Duality	0.002	0.002	0.002
	(1.038)	(0.873)	(0.647)
Change in Dir. Directorships	-0.000	-0.001	-0.001
	(-0.564)	(-0.887)	(-1.095)
Change in Dir.Qualification	0.005	0.005	0.004
	(0.845)	(0.847)	(0.734)
Director FE			✓
Firm FE		✓	
Ind-by-year FE	✓	✓	✓
Observations	39,948	39,933	38,295
Adjusted R-squared	0.081	0.093	-0.018

Appendix A

In the appendix, we provide a detailed definition of the variables used in this study and additional empirical results. A short description of each table in Appendix is as follows.

Table A1 reports variable definitions.

Table A2 presents the sample distribution by industry.

Table A3 presents the RepRisk ES Incidents Details.

Table A4 presents the SASB Classification of Financial Materiality.

Table A5 presents an example of ES Incentive to Executives.

Table A6 presents the baseline finding using RepRisk Reputation Risk Index change as ESG shocks.

Table A7 extends the discussion on Table 5, indicating that proactive ES strategies have an impact on investor reactions to directors on different committees. This finding aligns with the notion that proactive ES strategies are predominantly established by different committees within the board.

Table A8 presents the regressions to understand the relationship between the pecuniary costs of ES incidents and shareholder decisions in director elections.

Table A1. Variable Definition

Variables	Definition
Voting Outcome Variables	
Negative Votes%	Total aggregate votes that are cast "Against" or "Withhold" on a director as a fraction of the voting base. **Source:** ISS Voting Analytics.
Abnormal Negative Votes%	A director's Negative Votes% minus the average percentage of negative votes received by all incumbent directors who are participating in the same election. **Source:** ISS Voting Analytics.
Avg. Negative Votes%	Average percentage of Negative Votes% of incumbent independent director candidates within a board. **Source:** ISS Voting Analytics.
%Fund Votes Negative	The percentage of funds that cast votes "Against" or "Withheld" in each director election. **Source:** ISS Voting Analytics.
ISS Vote Against(0/1)	An indicator variable that is set to one if ISS vote "Against" or "Withhold" on a particular director election proposal; and zero, otherwise. **Source:** ISS Voting Analytics.
Major ES Incident Variables	
Env Incident(0/1)	An indicator variable assigned a value of one if a firm experienced at least one major environmental incident during the 12 months preceding the annual meeting; and zero, otherwise. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Source:** RepRisk.
Social Incident(0/1)	An indicator variable assigned a value of one if a firm experienced at least one major social incident during the 12 months preceding the annual meeting; and zero, otherwise. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Source:** RepRisk.
ES Incident(0/1)	An indicator variable assigned a value of one if a firm experienced at least one major environmental or/and social incident during the 12 months preceding the annual meeting; and zero, otherwise. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Source:** RepRisk.
Ln(1+ Env. Incidents)	The natural logarithm of one plus the total counts of major environmental incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Source:** RepRisk.

Ln(1+ Social. Incidents)	The natural logarithm of one plus the total counts of major social incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Source:** RepRisk.
Ln(1+ ES Incidents)	The natural logarithm of one plus the total counts of major environmental or/and social incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Source:** RepRisk.
Ln(1+ Material ES Incidents)	The natural logarithm of one plus the total counts of major and financially material environmental or/and social incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Source: Source:** RepRisk and SASB.
Ln(1+ ImmaterialES Incidents)	The natural logarithm of one plus the total counts of major and financially immaterial environmental or/and social incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Source:** RepRisk and SASB.
Ln(1+ Novel ES Incidents)	The natural logarithm of one plus the total counts of major and novel environmental or/and social incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Source:** RepRisk.
Ln(1+Non-novel ES Incidents)	The natural logarithm of one plus the total counts of major and non-novel environmental or/and social incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Source:** RepRisk.
Ln(1+ Reach ES Incidents)	The natural logarithm of one plus the total counts of major and widespread environmental or/and social incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Source:** RepRisk.
Ln(1+Non-reach ES Incidents)	The natural logarithm of one plus the total counts of major and non-widespread environmental or/and social incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Source:** RepRisk.
Ln(1+G Incidents)	The natural logarithm of one plus the total counts of major governance incidents that a firm experienced during the 12 months preceding the annual meeting. Major incidents are defined as those with severity coded as medium-to-high by RepRisk. **Source:** RepRisk.

Firm-level Controls

Size	The natural logarithm of book value of total assets. **Source:** Compustat.
ROA	Earnings before interests divided by book value of total assets. **Source:** Compustat.

Stock Return	Annual stock price return. **Source:** Compustat.
Ins. Ownership%	Average institutional ownership within a year in a firm. **Source:** Thomson Reuter Schedule 13F filings.
E-index	Entrenchment index. **Source:** Variable construction following Bebchuk et aLag(2009) and source from ISS Governance.

Board-level Controls

Board Size	The number of directors on a board. **Source:** BoardEX.
Board NED%	The percentage of non-executive directors in a board. **Source:** BoardEX.
Board Male%	The percentage of male directors on a board. **Source:** BoardEX.
Board Avg. Age	The average age of directors on a board. **Source:** BoardEX.
CEO-Chairman Duality(0/1)	An indicator variable assigned a value of one if the CEO of a firm is also the Chairman on board; and zero, otherwise. **Source:** BoardEX.

Director-level Variables

CEO(0/1)	An indicator variable assigned a value of one if a director is the CEO of a firm; and zero, otherwise. **Source:** BoardEX.
Executive Director(0/1)	An indicator variable assigned a value of one if a director is an executive director of a firm; and zero, otherwise. **Source:** BoardEX.
Independent Director(0/1)	An indicator variable assigned a value of one if a director is an independent director of a firm; and zero, otherwise. **Source:** BoardEX.
Director Tenure	The number of years a director has been on the board. **Source:** BoardEX.
Director Total Directorships	Director total board seats in publicly listed firms. **Source:** BoardEX.
Director Total Qualification	The educational qualifications a director has. **Source:** BoardEX.
Director Age	Director's age. **Source:** BoardEX.
Female Director(0/1)	An indicator variable assigned a value of one if a director is female; and zero, otherwise. **Source:** BoardEX.

Other Variables Employed

Director Turnover(0/1)	An indicator variable assigned a value of one if a director leaves the focal firm within 12 months following the shareholder annual meeting; and zero, otherwise. **Source:** BoardEX.

Depart Outside Board(0/1)	An indicator variable assigned a value of one if a director leaves at least one of her/his outside board seats within 12 months following the ES incident firms' shareholder annual meeting; and zero, otherwise. **Source:** BoardEX.
ES-linked Pay(0/1)	An indicator variable that is assigned a value of one if a board institutes compensation linked to environmental and social goals for executives; and zero, otherwise. **Source:** ISS Executive Compensation Analytics.
ST ES-linked Pay(0/1)	An indicator variable that is assigned a value of one if a board institutes short-term incentive linked to environmental and social goals for executives; and zero, otherwise.**Source:** ISS Executive Compensation Analytics.
LT ES-linked Pay(0/1)	An indicator variable assigned a value of one if a board instituted long-term incentive linked to environmental and social goals for executives; and zero, otherwise. **Source:** ISS Executive Compensation Analytics.
ES Committee(0/1)	An indicator variable assigned a value of one if a board had an ES committee to oversee the firm's sustainability practices; and zero, otherwise. **Source:** Refinitiv.
Enhanced ES Policy(0/1)	An indicator variable that is set to one if a board adopted a greater number of environmental and social goals policies (as tracked by Refinitiv ESG and follow Amiraslani et al. (2023)) relative to its industry peers within the same year; and zero, otherwise. **Source:** Refinitiv and Amiraslani et al. (2023).
Refinitiv ES Score	ES rating provided by Refinitiv data provider. **Source:** Refinitiv.
3yr Change in ES Score	The change in a firm's ES score over three years following a particular shareholder meeting. **Source:** Refinitiv.
3yr Avg. ES Incidents	The average number of major ES incidents a firm experiences over three years following a shareholder meeting.. **Source:** RepRisk.
Residual ISS Vote Against	The variable captures the residual in the ISS recommendation ("Against" or "Withhold") dummy after adjusting for other director and firm characteristics in the regression. **Source:** Multiple Sources including ISS Voting Analytics, Compustat, Thomson Reuter Schedule 13F filings, BoardEX, and ISS Governance.
Democratic(0/1)	An indicator variable that is assigned a value of one if a firm is located in a county that supported the Democratic Party in the most recent presidential election, and zero otherwise. **Source:** The Notre Dame Software Repository for Accounting and Finance (SRAF) & Presidential Election Outcomes.

Table A2. Sample Distribution by Industry

This table reports the Fama-French 12 industry distribution in our samples. The figure shows the average number of major ES incidents per firm-year by industry.
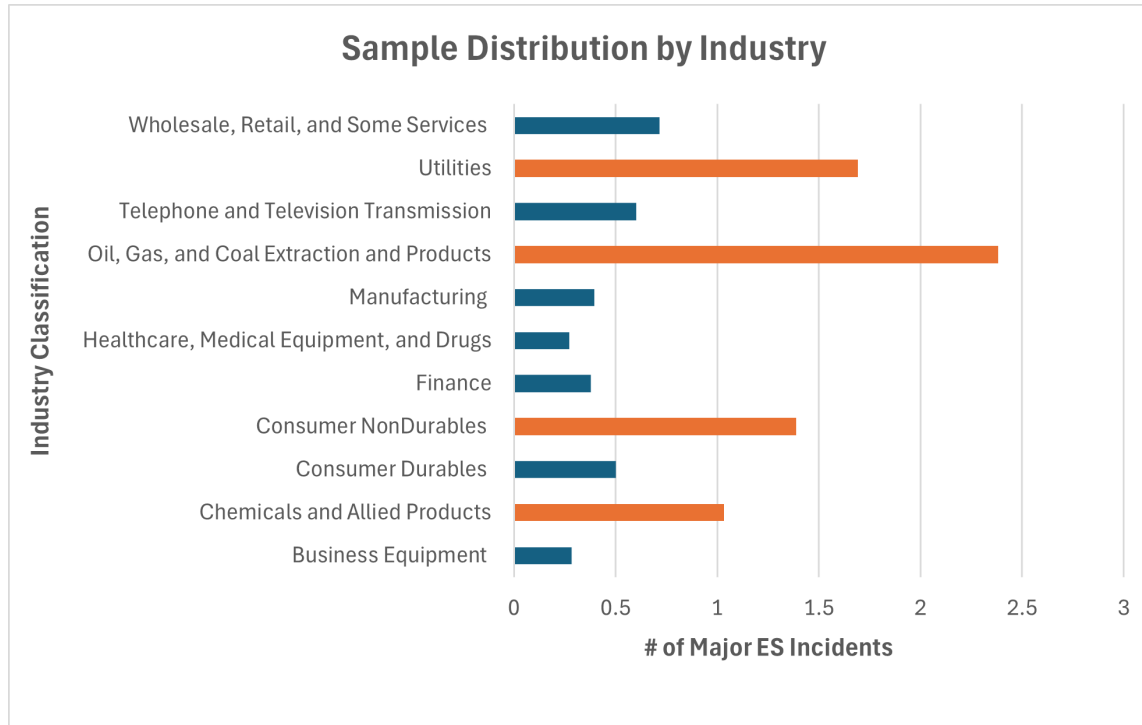

Sample Distribution by Industry

Table A3. RepRisk ES Issues

Variables Name in Text	RepRisk ES Issues Name	ES Issues Definition
Environmental Issues		
GHG Emissions	Climate change, GHG emissions, and global pollution	Global pollution and climate change, which includes atmospheric pollution and criticism related to climate change, carbon, and other greenhouse gas emissions.
Local Pollution	Local pollution	Local pollution, which is pollution into local air, water, and soil.
Ecological Impact	Impacts on landscapes, ecosystems, and bio-diversity	Impacts on ecosystem/landscapes, such as contamination of groundwater, forests, rivers, or seas, deforestation, or impacts on wildlife.
Resource Overuse	Overuse and wasting of resources	Overuse and wasting of resources, which includes inefficient use or waste of renewable or non-renewable resources, such as water, energy, or commodities.
Waste Management	Waste issues	Waste issues, such as inappropriate disposal or handling of waste.
Animal Mistreat	Animal mistreatment	Animal mistreatment, which includes torture, mistreatment or abuse of animals, through experiments, husbandry, or trophy hunting.
Social Issues—Employee Relations		
Forced Labor	Forced labor	Forced labor, such as bonded labor, prison labor, exploitative practices, restrictions on freedom of movement, or withholding of wages.
Child Labor	Child labor	Child labor, which also includes child prostitution, pornography, and trafficking.
Labor Rights	Freedom of association and collective bargaining	Freedom of association and collective bargaining, which refers to violations of workers' rights to organize and collectively bargain.
Discrimination	Discrimination in employment	Discrimination in employment, which is social discrimination against employees.

Workplace Safety	Occupation health and safety issues	Occupational health and safety issues, such as lack of safety for employees at work or negligence resulting in work-related accidents.
Poor Emp. Environment	Poor employment conditions	Poor employment conditions, such as "slave-like" working conditions, issues to labor contracts or pay, or spying on employees.

Social Issues—Community Relations

Human Rights	Human rights abuses and corporate complicity	Human rights abuses and corporate complicity, such as violence against humans, human trafficking, organ trafficking, privatization of water sources, supporting oppressive regimes, or supporting terrorist organizations.
Community	Impacts on communities	Impacts on communities, such as land or water-grabbing, negative impacts on a community's livelihood or employment opportunities, relocation of communities, safety impacts, or access to lifesaving drugs.
Local Participation	Local participation issues	Local participation issue, which arises when local communities or individuals are not consulted about the firm's activities or when they do not benefit appropriately, and when critics are silenced by unethical tactics.
Social Discrimination	Social Discrimination	Social discrimination, which refers to treating people differently because of certain characteristics, such as gender, racial, ethnic, or religious.

Table A4. SASB Materiality Map®

The figure below displays the SASB Materiality Map®. As shown in red, under the industry **Extractives & Minerals Processing**, there are eight detailed sectors including **Coal Operation**, **Construction Materials**, and so on. The dark gray fields represent the highly material General Issue Categories (GICs) in the respective sector (e.g., the GIC **GHG Emissions** is highly material in the **Coal Operation** sector). Light gray fields are material in the respective sector (e.g., the GIC **Energe Management** is material in the first column **Consumer Goods** sector) while white fields show that a GIC is not material for firms in the specific sector (e.g., **Customer Privacy** in the **Construction Materials** sector).

Dimension	General Issue Category ⓘ	Consumer Goods (Click to expand)	Extractives & Minerals Processing — Coal Operations	Construction Materials	Iron & Steel Producers	Metals & Mining	Oil & Gas – Exploration & Production	Oil & Gas – Midstream	Oil & Gas – Refining & Marketing	Oil & Gas – Services	Financials (Click to expand)	Food & Beverage (Click to expand)	Health Care (Click to expand)	Infrastructure (Click to expand)
Environment	GHG Emissions													
	Air Quality													
	Energy Management													
	Water & Wastewater Management													
	Waste & Hazardous Materials Management													
	Ecological Impacts													
Social Capital	Human Rights & Community Relations													
	Customer Privacy													
	Data Security													
	Access & Affordability													
	Product Quality & Safety													
	Customer Welfare													
	Selling Practices & Product Labeling													
Human Capital	Labor Practices													
	Employee Health & Safety													
	Employee Engagement, Diversity & Inclusion													
Business Model & Innovation	Product Design & Lifecycle Management													
	Business Model Resilience													
	Supply Chain Management													
	Materials Sourcing & Efficiency													
	Physical Impacts of Climate Change													
Leadership & Governance	Business Ethics													
	Competitive Behavior													
	Management of the Legal & Regulatory Environment													
	Critical Incident Risk Management													
	Systemic Risk Management													

Source: https://www.sasb.org/standards/materiality-map/

Table A5. Example of ES Incentives to Executives

This table provides examples of the disclosure of ES metrics in compensation contracts. The disclosure is an excerpt of the description of the compensation package of the executives in **Cardinal Health, Inc.**, as disclosed in the firm's 2022 Proxy Statement.

The charts below show the components of fiscal 2022 target total direct compensation and the elements of pay for our Chief Executive Officer and other named executives.

Chief Executive Officer Mix of Pay Elements

10% Base Salary — 14% Annual Cash Incentive — 30% RSUs — 76% LONG-TERM INCENTIVE — 46% PSUs

Other Named Executives Average Mix of Pay Elements

17% Base Salary — 17% Annual Cash Incentive — 26% RSUs — 66% LONG-TERM INCENTIVE — 40% PSUs

Pay Element	Description and Purpose	Links to Business and Talent Strategies
Base salary	• Fixed cash compensation, which is reviewed annually and adjusted when appropriate • Based on qualifications, experience, role, performance, career progression, market data, and internal pay equity	• Competitive base salaries support our ability to attract and retain executive talent
Annual incentive	• Variable cash compensation based on achieving goals for annual adjusted non-GAAP operating earnings, operating cash flow, cost savings, and DE&I, and individual performance • Target as a percentage of base salary reflects market data and internal pay equity	• Primary financial measure reflects our focus on operating earnings and liquidity-focused measure aligns with our focus on capital deployment • Cost savings and DE&I goals align with key strategic initiatives • Executives are assessed on their individual performance, including their alignment with our *Standards of Business Conduct,* values, and behaviors
Long-term incentive	• Weighted 60% in PSUs and 40% in RSUs • PSUs vest based on achieving goals for adjusted non-GAAP EPS, cost savings, and DE&I goals over three years, with a relative TSR modifier • RSUs vest ratably over three years • Target annual grant value reflects market data and internal pay equity	• Supports sustainable long-term shareholder return and closely aligns management's interests with shareholders' interests • Non-GAAP EPS is a primary measure for evaluating our performance and is closely followed by the investment community • Cost savings and DE&I goals align with key strategic initiatives • Long-term incentives help to retain executive talent

Source: https://www.sec.gov/Archives/edgar/data/721371/000130817922000365/lcah2022_def14a.htm#new_id-75

Table A6. Using RepRisk Reputation Risk Index change as ESG shocks

The table presents regression analyses using the RepRisk reputation change to identify ESG shocks. **Lag 3-month RRI change $\geq$ 50** is an indicator variable that is assigned a value of one if a firm has experienced a monthly RRI change $\geq$ 50 during the past three months before a specific shareholder meeting, and zero otherwise. **Lag 6-month RRI change $\geq$ 50** is an indicator variable that is assigned a value of one if a firm has experienced a monthly RRI change $\geq$ 50 during the past six months before a specific shareholder meeting, and zero otherwise. **Lag 12-month RRI change $\geq$ 50** is an indicator variable that is assigned a value of one if a firm has experienced a monthly RRI change $\geq$ 50 during the past 12 months before a specific shareholder meeting, and zero otherwise. The analysis controls for **Residual ISS Vote Against** as well as a comprehensive set of variables, including firm fundamentals, board, and directors' characteristics. Table A1 in Appendix A provides detailed variable definitions. t-statistics are calculated from robust standard errors clustered at the firm level and are provided in parentheses. All continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

VARIABLES	(1)	(2)	(3)
		Negative Votes%	
Lag 3-month RRI change$\geq$ 50	0.031***		
	(4.184)		
Lag 6-month RRI change$\geq$ 50		0.031***	
		(4.184)	
Lag 12-month RRI change$\geq$ 50			0.029**
			(2.257)
Residual ISS Vote Against	0.213***	0.213***	0.213***
	(29.541)	(29.541)	(29.537)
Firm-level Controls	✓	✓	✓
Board-level Controls	✓	✓	✓
Director-level Controls	✓	✓	✓
Firm FE	✓	✓	✓
Ind-by-year FE	✓	✓	✓
Observations	54,653	54,653	54,653
Adjusted R-squared	0.628	0.628	0.628

Table A7. Proactive ES Strategies and Abnormal Negative Votes% Across Committees

The table extends the discussion on Table 5. In this table, we change the outcome variables from each director's abnormal negative votes% during a specific shareholder meeting to the average abnormal negative votes% across different committees during a specific shareholder meeting. In Panel A, the outcomes variable is the average abnormal negative votes% in the **Compensation** committee during a specific shareholder meeting. In Panel B, the outcomes variable is the average abnormal negative votes% in the **Nomination** committee during a specific shareholder meeting. In Panel C, the outcomes variable is the average abnormal negative votes% in the **Audit** committee during a specific shareholder meeting. All specifications control for firm-fundamental variables, board characteristics, and firm- and industry-by-year-fixed effects. Table A1 in Appendix A provides detailed variable definitions. t-statistics are calculated from robust standard errors clustered at the firm level and are provided in parentheses. All continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

Panel A: Compensation Committee

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
			Abnormal Negative Votes%			
Ln(1+ES Incidents)	0.003	0.003	0.002	0.003	0.004*	0.002
	(1.349)	(1.331)	(1.291)	(1.381)	(1.789)	(0.996)
ES-linked Pay(0/1)	0.002					
	(0.505)					
Ln(1+ES Incidents)×ES-linked Pay(0/1)	-0.002					
	(-0.856)					
ST ES-linked Pay(0/1)		0.002		0.002		
		(0.552)		(0.503)		
Ln(1+ES Incidents)×ST ES-linked Pay(0/1)		-0.002		-0.002		
		(-0.778)		(-0.637)		
LT ES-linked Pay(0/1)			-0.003	-0.004		
			(-0.516)	(-0.543)		
Ln(1+ES Incidents)×LT ES-linked Pay(0/1)			**-0.009***	-0.008		
			(-1.669)	(-1.593)		
ES Committee(0/1)					0.006**	
					(2.349)	
Ln(1+ES Incidents)×ES Committee(0/1)					-0.004	
					(-1.644)	
Enhanced ES Policy(0/1)						0.002
						(1.054)
Ln(1+ES Incidents)×Enhanced ES Policy(0/1)						-0.000
						(-0.138)
Firm-level Controls	✓	✓	✓	✓	✓	✓
Board-level Controls	✓	✓	✓	✓	✓	✓
Firm FE	✓	✓	✓	✓	✓	✓
Ind-by-year FE	✓	✓	✓	✓	✓	✓

	(1)	(2)	(3)	(4)	(5)	(6)
Observations	8,207	8,207	8,207	8,207	8,032	9,088
Adjusted R-squared	0.253	0.253	0.253	0.253	0.250	0.249

Panel B: Nomination Committee

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES			Abnormal Negative Votes%			
Ln(1+ES Incidents)	0.001	0.001	0.000	0.001	0.007***	0.002
	(0.451)	(0.542)	(0.163)	(0.504)	(2.797)	(0.891)
ES-linked Pay(0/1)	0.002					
	(0.599)					
Ln(1+ES Incidents)×ES-linked Pay(0/1)	-0.002					
	(-0.757)					
ST ES-linked Pay(0/1)		0.003		0.003		
		(0.700)		(0.737)		
Ln(1+ES Incidents)×ST ES-linked Pay(0/1)		-0.003		-0.003		
		(-1.047)		(-1.133)		
LT ES-linked Pay(0/1)			-0.007	-0.008		
			(-0.785)	(-0.822)		
Ln(1+ES Incidents)×LT ES-linked Pay(0/1)			0.007	0.008		
			(1.157)	(1.289)		
ES Committee(0/1)					0.006**	
					(2.294)	
Ln(1+ES Incidents)×ES Committee(0/1)					**-0.007***	
					(-2.611)	
Enhanced ES Policy(0/1)						-0.000
						(-0.182)
Ln(1+ES Incidents)×Enhanced ES Policy(0/1)						-0.001
						(-0.254)
Firm-level Controls	✓	✓	✓	✓	✓	✓
Board-level Controls	✓	✓	✓	✓	✓	✓
Firm FE	✓	✓	✓	✓	✓	✓
Ind-by-year FE	✓	✓	✓	✓	✓	✓
Observations	7,005	7,005	7,005	7,005	6,661	7,603
Adjusted R-squared	0.304	0.304	0.304	0.304	0.325	0.306

Panel C: Audit Committee

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
			Abnormal Negative Votes%			
Ln(1+ES Incidents)	0.001 (0.528)	0.001 (0.510)	0.001 (0.851)	0.001 (0.530)	-0.000 (-0.100)	0.002 (1.164)
ES-linked Pay(0/1)	-0.004 (-1.411)					
Ln(1+ES Incidents)×ES-linked Pay(0/1)	0.002 (0.805)					
ST ES-linked Pay(0/1)		-0.005 (-1.594)		-0.005 (-1.608)		
Ln(1+ES Incidents)×ST ES-linked Pay(0/1)		0.002 (0.885)		0.002 (0.934)		
LT ES-linked Pay(0/1)			0.000 (0.001)	0.000 (0.067)		
Ln(1+ES Incidents)×LT ES-linked Pay(0/1)			-0.002 (-0.451)	-0.002 (-0.566)		
ES Committee(0/1)					-0.001 (-0.394)	
Ln(1+ES Incidents)×ES Committee(0/1)					0.002 (1.174)	
Enhanced ES Policy(0/1)						0.000 (0.232)
Ln(1+ES Incidents)×Enhanced ES Policy(0/1)						-0.001 (-0.681)
Firm-level Controls	✓	✓	✓	✓	✓	✓
Board-level Controls	✓	✓	✓	✓	✓	✓
Firm FE	✓	✓	✓	✓	✓	✓
Ind-by-year FE	✓	✓	✓	✓	✓	✓
Observations	8,498	8,498	8,498	8,498	8,382	9,448
Adjusted R-squared	0.221	0.221	0.221	0.221	0.211	0.217

Table A8. Pecuniary Costs of ES Incidents and Shareholder Voting

The table presents regression analyses on the relationship between the pecuniary costs of ES incidents and shareholder decisions in director elections. We estimate the total pecuniary costs of the ES incidents by multiplying the absolute value of CAR(-1,+1) with the pre-event market value of a company. If CAR(-1,+1) is positive, pecuniary costs are set to zero. We then calculate the **Ln (1+Avg. Pecuniary Costs)** by averaging the pecuniary costs linked to the ES incidents 12 months prior to the shareholder meeting and taking the logarithm value of one plus the mean value. **Ln (1+Max Pecuniary Costs)** is calculated by taking the logarithm value of one plus the maximum value of the pecuniary costs linked to the ES incidents. The regressions control for a comprehensive set of variables, including firm fundamentals, board, and directors' characteristics. Table A1 in Appendix A provides detailed variable definitions. *t*-statistics are calculated from robust standard errors clustered at the firm level and are provided in parentheses. All continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

	(1)	(2)	(3)	(4)
VARIABLES		Negative Votes%		
Ln (1+Avg. Pecuniary Costs)	0.007**	0.008**		
	(2.489)	(2.317)		
Ln (1+Max Pecuniary Costs)			0.004**	0.003*
			(2.228)	(1.901)
Firm-level Controls	✓	✓	✓	✓
Board-level Controls	✓	✓	✓	✓
Director-level Controls	✓	✓	✓	✓
Firm FE		✓		✓
Ind-by-year FE	✓	✓	✓	✓
Observations	20,119	20,110	20,110	20,101
Adjusted R-squared	0.201	0.348	0.201	0.347