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Director Reputation Effects of Environmental and Social Failures

Finance Working Paper N° 952/2024
January 2024

Tongqing (Tony) Ding
University of Melbourne

Yonca Ertimur
University of Colorado at Boulder and ECGI

Paige Harrington Patrick
University of Illinois at Chicago

Frances M. Tice
University of Colorado at Boulder

ECGI Working Paper Series in Finance

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Abstract

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Keywords: Board of directors, corporate governance, director labor market, shareholder voting, ESG

JEL Classifications: G34, M10, M14, M41

Tongqing (Tony) Ding
Senior Lecturer
University of Melbourne
Grattan Street, Parkville
Victoria, 3010, Australia
e-mail: tongqing.ding@unimelb.edu.au

Yonca Ertimur*
Tandean Rustandy Esteemed Professor
University of Colorado at Boulder
419 UCB, 995 Regent Drive
Boulder,CO 80309, USA
e-mail: yonca.ertimur@colorado.edu

Paige Harrington Patrick
Assistant Professor, Accounting
University of Illinois at Chicago
601 South Morgan Street
Chicago, IL 60607, USA
e-mail: php@uic.edu

Frances M. Tice
Assistant Professor
University of Colorado at Boulder
995 Regent Drive, 419 UCB
Boulder, CO 80309 , USA
e-mail: frances.tice@colorado.edu

*Corresponding Author

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Tongqing Ding
University of Melbourne

Yonca Ertimur[1]
University of Colorado Boulder

Paige H. Patrick
University of Illinois at Chicago

Frances M. Tice
University of Colorado Boulder

First Draft: March 2023
This Draft: December 2023

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[1] Corresponding Author: Leeds School of Business, 419 UCB, 995 Regent Drive, Boulder CO 80303, phone: (303) 492-4292, email: yonca.ertimur@colorado.edu. We thank workshop participants at Columbia University and the London School of Economics and Political Science for their thoughtful feedback. We thank Scott Robinson for sharing his ESG fund classification data with us.

1. Introduction

We examine whether outside directors experience reputation penalties for environmental or social (ES) failures. Discussions around the importance of ES issues and the pressure boards face to guide ES activities have steadily increased in recent years. Pressure comes from corporate and economic leaders, who are pushing firms to redefine their responsibilities to serve a broader group of stakeholders, not just shareholders. For example, in 2019, the Business Roundtable issued a new Statement on the Purpose of a Corporation, in which CEO signatories committed to "lead their companies for the benefit of all stakeholders – customers, employees, suppliers, communities, and shareholders" (Business Roundtable, 2019). The Davos Manifesto, also issued in 2019, redefines the purpose of a firm as "to engage all its stakeholders in shared and sustained value creation" (World Economic Forum, 2019). Pressure also comes from shareholders, who are seeking opportunities to invest more responsibly. Notably, in 2022, the total value of US assets under professional management using sustainable investing strategies was $8.4T, or one eighth of the value of all US assets under professional management (US SIF, 2022). Moreover, as of 2021, more than 3,800 institutional investors had signed the United Nation's Principles for Responsible Investment (UN PRI, 2021). In recent years, shareholder engagement has also put pressure on firms to incorporate ES activities in their strategic planning and resource allocation (e.g., Barzuza et al., 2021; Hart & Zingales, 2022).

Given the increasing importance of ES activities to stakeholders and shareholders, it is important to understand directors' incentives to guide and monitor management's ES activities. Reputation penalties for ES failures can provide such incentives. However, directors may not experience reputation penalties as a result of ES failures for several reasons. First, the link between ES failures and shareholder harm is not clear. In fact, some argue that investments in ES activities

result from poor governance rather than efforts to meet shareholder demands (e.g., Benabou & Tirole, 2010; Gillan et al., 2021). Moreover, even when ES failures have negative implications for shareholder value, investors may underreact to ES failures because estimating the economic implications of ES failures is challenging, or because investors pay insufficient attention to ES activities (e.g., Glossner, 2021). In addition, if ES failures are not particularly visible events or the lack of consistent disclosure around ES activities obfuscates ES performance, there will be no "outrage", which some believe to be a strong disciplining force (Bebchuk & Fried, 2004). Finally, shareholders may not believe directors are accountable for ES oversight, as the traditional view of the board of directors is that it serves exclusively to monitor management for rent extraction and advise managers where management expertise is limited.

We examine whether directors experience reputation effects at firms with ES failures and at other firms where they hold outside board seats at the time of ES failures. We base our measures of reputation effects on director labor market outcomes (specifically, director turnover and changes in committee assignments) and on votes withheld from directors at uncontested elections. We utilize director labor market outcomes because prior literature hypothesizes that the labor market incentivizes directors to develop their reputations as effective monitors and advisors (Fama, 1980; Fama & Jensen, 1983). Consistent with this hypothesis, empirical studies document that poorly performing directors experience higher turnover, are more likely to lose other directorships held, and are less likely to be offered new directorships (Ertimur et al., 2010; Fich & Shivdasani, 2007; Srinivasan, 2005). Of the two director labor market outcomes we utilize, we believe losing directorships to be the more severe penalty given the monetary and non-monetary benefits (e.g., prestige, social status, power) that accrue to directors (Ertimur et al., 2010; Fich & Shivdasani, 2007; Srinivasan, 2005). We believe losing committee memberships to be the next most severe

reputation penalty, as benefits of committee membership are smaller. Nonetheless directors who sit on committees do typically receive additional compensation (Spencer Stuart, 2022) and have more power in monitoring and advising management (Adams & Ferreira, 2009; Aggarwal et al., 2019), which suggests that losing committees positions would be perceived as a penalty.

Votes withheld from directors at uncontested director elections, which reflect shareholder dissent, have emerged as an important performance metric and control system over the past two decades (Ertimur et al., 2018). Boards respond to votes withheld from directors by, for example, addressing the concern underlying an adverse vote (Ertimur et al., 2011; Ertimur et al., 2018). Importantly for our setting, shareholder dissent has negative consequences for directors; those facing dissent are more likely to depart boards, are moved to less prominent positions on the board and have fewer opportunities in the director labor market (Aggarwal et al., 2019). As the penalties associated with votes withheld are indirect, we believe votes withheld to be the weakest of the penalties we examine.

Unlike measures of reputation penalties, comprehensive measures of ES failures are not well-established. We construct two measures of ES failures based on incidents tracked by the ESG data provider RepRisk: six environmental, 15 social and five "cross-cutting" incident types. The first measure captures the presence of at least one ES failure at a given firm during a given fiscal year and the second captures the severity of ES failures. In addition to RepRisk data for measures of ES failures, we utilize data from Refinitiv ESG (formerly Asset4 ESG), BoardEx, Compustat and CRSP databases. Our initial sample is comprised of firm-years at the intersection of RepRisk and these four databases. The sample begins with ES failures in 2007, when RepRisk's coverage became consistent, and ends with ES failures in 2020, the last year of failures for which we can measure director labor market outcomes. Approximately 47% of firm-years in this initial sample

have at least one ES incident. We refer to firm-years with ES failures as ES failure firms and to firm-years without ES failures as non-failure firms. We use the term ES failure director to refer to an outside director who serves on the board of an ES failure firm at the time of the failure.

In our first set of analyses, we examine reputation penalties levied at ES failure firms. In these analyses, ES failure directors comprise the treatment sample and non-failure directors comprise the control sample. Because the propensity to experience ES failures is likely nonrandom, we entropy balance to match covariate distributions between the treatment and control samples.

We start with an investigation of director turnover from boards of ES failure firms. We find that directors are more likely to turn over from boards of ES failure firms than from boards of non-failure firms. However, the economic magnitude of this effect (approximately a 1.4% increase in director turnover) when we do not distinguish among failure severities is small compared to the 15.9% average turnover rate in our sample. When we allow failure severity to vary, we find that, regardless of failure severity, the probability of turnover is higher for ES failure directors than for non-failure directors. Moreover, the likelihood of turnover increases monotonically with the severity of the ES failure. Importantly, directors at firms with high severity ES failures experience a more economically meaningful increase in the likelihood of turnover. A high-severity ES failure is associated with a 2.6% greater probability of turnover; this incremental penalty is larger than the protective effect of being a newly-elected director. We conduct two additional tests to explore whether director turnover from the boards of ES failure firms varies over time or in the cross-section. First, we estimate annual regressions and find little variation over time, without a consistent upward trend or even a marked increase in turnover associated with ES failures in recent periods during which ES issues became more salient. Second, we examine whether directors who

sit on ES committees of failure firms are more likely to turn over than other ES failure directors; we do not observe differences in turnover.

We next turn our attention to turnover from ES committees of failure firms. Removal from the ES committee following an ES failure can reflect a reputation penalty or stem from a reevaluation of the director's ability to be effective on the ES committee. For this analysis, we limit the treatment and control samples to directors serving on ES committees. We do not find any evidence that directors turn over from ES committees more frequently at failure firms than at non-failure firms.

In our final tests of reputation penalties at ES failure firms, we examine votes withheld from directors at uncontested director elections. Votes withheld are 0.8% higher for ES failure than non-failure directors. While statistically significant, this penalty is economically negligible; it is substantially weaker than penalties levied in cases of governance-related failures, such as option backdating (Ertimur et al., 2012), and much lower than the threshold of 20% of votes withheld typically considered strong enough to affect board actions (Del Guercio et al., 2008; Ertimur et al., 2012). Votes withheld from ES failure directors are higher than for non-failure directors regardless of the severity of the failure and increase monotonically with the severity of the ES failure. However, the incremental votes withheld remains economically small even for the highest severity group. As in the case of turnover, we do not observe notable variation in votes withheld from ES failure directors compared to non-failure directors across time or for members of ES committees. Finally, we explore an additional source of cross-sectional variation: whether shareholders differ in how they perceive ES failures. Exploiting the requirement that mutual funds disclose how they vote on each ballot item, we demonstrate that ESG funds are more likely to vote against ES failure directors than other mutual funds are. This provides some evidence that ESG

funds monitor boards with respect to ES concerns and that penalties for ES failures likely vary with shareholder composition.

In our second set of analyses, we examine whether ES failure directors experience spillover effects at non-failure firms where they serve as outside board members. We examine turnover from non-failure boards, changes in key committee assignments at non-failure boards, and votes withheld from failure directors on non-failure boards. These analyses provide evidence on the severity of the penalties failure directors face in the labor market collectively, and help us assess whether failure directors' higher probability of turnover is forced or voluntary. To the extent turnover from the ES failure firm is forced, we expect ES failure directors to also experience penalties at non-failure firms.

For these analyses we restrict our sample to non-failure firms that have both ES failure directors (i.e., directors who are serving concurrently at another firm with an ES failure) and non-failure directors. This choice means that we are comparing reputation penalties for failure and non-failure directors *within the same firm*; thus, we do not construct entropy-balanced control samples.

We do not find evidence of reputation penalties for ES failure directors at non-failure firms. Thus, the results of these analyses are inconsistent with spillover effects of ES failures. These weaker penalties are consistent with Ertimur et al. (2012) who find that compensation committee members' reputation penalties at firms involved in backdating did not spill over to non-backdating firms where they also served as outside directors. These results also suggest that the higher probability of turnover at failure firms we detect may be voluntary, rather than representing penalties levied by ES failure firms.

We conclude with two analyses that allow us to further evaluate whether the higher turnover at ES failure firms we observe is likely to be voluntary. First, we examine ES failure

director turnover from non-failure firms' boards conditional on turnover from the ES failure firm's board. To the extent director turnover at ES failure firms is forced, we expect ES failure directors who lose their seats at failure firm boards to be more likely to experience turnover at non-failure firms. We find that this is indeed the case. Second, we compare the characteristics of the failure firm seats directors lose following ES failures to seats these same failure directors gain. If director turnover at ES failure firms is voluntary (forced), we expect ES failure directors who leave failure firms to be more likely to join firms that are at least as prestigious as (less prestigious than) the ES failure firm. We find that directors who turn over from ES failure firms' boards and obtain new directorships place at smaller firms, on boards that are less connected, and that these directors earn lower compensation. These findings indicate that directors obtain less prestigious board positions following turnover from an ES failure firm, which suggests that turnover from ES failure firms' boards is likely to be forced.

Our findings contribute to the literatures on the director labor market as an *ex post* settling up mechanism and on shareholder voting as a measure of shareholder dissatisfaction with directors. Most prior research on the director labor market as a disciplining mechanism focuses on reputation effects of firm performance, governance structures, or governance failures, whereas we examine ES failures. We document statistically significant labor market penalties in the form of director turnover. The effect is economically small when we measure failures as any ES failure, but more economically meaningful in cases of severe failures. We further find that, when directors obtain other board seats after losing their position at the ES failure board, they do so at firms with lower prestige. These results suggest that the director labor market can act as a disciplining mechanism to encourage directors to effectively manage ES activities and risks. We find economically negligible increases in votes withheld, which suggests that shareholders are not using

this mechanism to express dissatisfaction with directors following ES failures. However, Institutional Shareholder Services (ISS), the most influential proxy advisor, did not emphasize environmental and social considerations in their recommendations for director elections until the 2021 proxy season. As ES issues continue to garner more interest from ISS, we may observe changes in shareholder voting behavior.

We further contribute to the emerging literature on the roles of ES investments, outcomes, and failures in labor markets. These studies provide initial evidence that ES performance is positively associated with directors' and executives' reputations. For example, Cullinan et al. (2017) show stronger shareholder support at firms with greater CSR strengths, and Colak et al. (2022) document that executive directors at non-US firms with intense negative ESG media coverage experience a decline in other board seats. Dai et al. (2023) show that corporate social performance enhances CEOs' labor market potential, and Dunham et al. (2022) find that retiring CEOs are rewarded in the director labor market for CSR engagement. Against the backdrop of increasing pressure on boards of US firms to consider ES issues, our study focuses on whether non-executive directors are held accountable for ES failures. We adopt a comprehensive approach in which we examine a broad range of outcomes for outside directors of US firms involved in ES failures. Importantly, unlike most of the prior literature, we focus on ES failures rather than overall ES performance or disclosures. We believe examining failures – rather than levels of ES performance – is particularly important because "greenwashing" can bias measures of ES performance and because rewards for good ES performance may not provide sufficient *ex ante* incentives to directors. This focus on ES failures informs the extent to which the director labor market and voting shareholders incentivize directors to monitor and advise management on ES issues.

2. Measurement of ES failures, data and sample

We use the RepRisk ESG Risk Platform to identify firm-years with ES failures. RepRisk offers one of the most comprehensive ESG databases, covering over 215,000 public and private companies globally, with data going back to 2006 (RepRisk, 2023). It screens thousands of data sources[1] daily and tracks 28 ESG incident types. Based on data from these sources, RepRisk provides a reputation risk index score, a risk incident indicator, and an estimate of incident severity, among other metrics. MSCI, Sustainalytics, and Refinitiv also provide data on ESG incidents. Unlike MSCI and Sustainalytics, neither RepRisk nor Refinitiv offers firms the opportunity to review, comment on, or request adjustments to ESG data. Between RepRisk and Refinitiv, RepRisk's coverage of environmental incidents is broader. Thus, of the commercially available datasets with broad coverage, we believe RepRisk is a good source of data on ES failures.

To construct our measures of ES failures, we first classify the 28 incident types RepRisk tracks to calculate its risk index score into environmental (E), social (S) and governance (G) categories. Our classification mirrors that of RepRisk with two differences. First, we categorize only events that unequivocally pertain to agency conflicts between managers and shareholders into the G category.[2] This results in six environmental, 15 social, and two corporate governance incident types. Second, we treat the five "cross-cutting" issues that RepRisk does not classify into E, S, or G categories as ES failures, because these incidents reflect conflicts with non-shareholder stakeholders. Table 1 lists the classified incident types.

[1] Examples of data sources include print media, non-governmental organizations, government agencies, regulators, and Twitter.

[2] Specifically, we re-categorize "Corruption, bribery, extortion, money laundering", "Misleading communication (including greenwashing)", "Tax evasion", "Tax optimization" and "Anti-competitive practices" incidents out of the G category into the S category because these issues mostly represent conflicts with non-shareholder stakeholders. Assigning incidents to E, S and G categories requires judgement, and we acknowledge that distinctions among the three categories are not clearcut, though we do observe that our categorization is largely consistent with Refinitiv. For example, Refinitiv classifies tax evasion and anti-competitive practices as social issues. They also include business ethics in the social category, which likely overlaps with "Corruption, bribery, extortion, money laundering".

From these incident categories, we construct two measures of ES failures. Our primary measure is an indicator variable set to one if RepRisk identifies at least one E, S, or cross-cutting incident during a fiscal year (*ES failure*). As this measure does not capture the severity of failures, using this measure could understate the reputation effects of ES failures. We therefore construct a secondary measure: the maximum value of the severity of any E, S, or cross-cutting incidents in a fiscal year (*Max failure severity*). RepRisk assigns a severity score between one and three to each incident, where one is the lowest severity and three is the highest. RepRisk constructs the severity score from an assessment of the consequences of the incident (e.g., the incident caused a minor injury vs. a death), the extent of the incident (e.g., the number of individuals harmed), and the source of the incident (e.g., negligence vs. intent). This measure captures both the existence and severity of incidents.

In addition to using RepRisk for our measures of ES failures, we rely on Refinitiv ESG for overall ES performance/disclosure scores, BoardEx for board composition and director characteristics, and Compustat and CRSP for firm characteristics and performance. Our initial sample is comprised of firm-years at the intersection of RepRisk and these four databases. Our sample period begins in 2007, when RepRisk's coverage became consistent, and ends in 2020, the last year of ES failures for which we can measure director labor market outcomes. We denote the fiscal year over which we measure the ES failure year t, and measure director turnover (votes withheld) as of the second (first) annual meeting following year t. Figure 1 presents the timeline. We include firm-years with an ES failure in fiscal year t in our initial treatment sample and firm-years without an ES failure in fiscal years t and t-1 in our initial control sample. Thus, firm-years that do not have an ES failure in t but have an ES failure in t-1 are excluded from both samples. This ensures that delayed reactions to ES failures in t-1 do not contaminate our control sample.

These restrictions result in an initial sample of 10,804 firm-year observations. Some of our analyses also require ISS Voting Analytics data or hand-collected data. In Sections 3–5, we discuss the construction of each sample in greater detail and present descriptive information. Appendix A provides detailed variable definitions and data sources for each variable. We winsorize continuous independent variables at the 1st and 99th percentiles.

Table 1 presents the 28 incident types RepRisk tracks and descriptive statistics for *ES failure* and *Max failure severity* for our initial sample. The most common incidents in our sample are "Violation of national legislation" incidents; the average firm-year observation has 1.896 of such incidents, corresponding to 20,481 incidents. "Impacts on communities", "Impacts on landscapes, ecosystems, and biodiversity", "Human rights abuses, corporate complicity", and "Local pollution" incidents are also frequent, with means above 70%. The mean of *ES failure* is 0.469, i.e., RepRisk identified at least one ES incident in 46.90% of firm-years in our sample. The mean of *Max failure severity* is 0.823 for the overall sample and 1.755 for the sub-sample of firm-years with ES failures.

3. Penalties at ES failure firms

3.1. Turnover from ES failure firms

3.1.1. Research design

We first investigate director turnover at ES failure firms. Specifically, we compare director turnover at our treatment sample of ES failure firm-years to director turnover at our control sample of non-failure firm-years, as defined in Section 2. For this set of analyses, we exclude directors at non-failure firms from the non-failure control sample when they sit concurrently on boards of ES failure firms.[3] Excluding these directors removes potential effects of involvement with an ES

[3] This restriction results in an attrition of one firm-year from the initial sample of 10,804 firm-years in Table 1.

failure firm on director turnover at non-failure firms. The treatment sample includes 47,652 director-firm-years at 5,068 firm-years, and the control sample includes 39,930 director-firm-years at 5,735 firm-years.

For each director, we define *Turnover* as an indicator variable that is equal to one if the director turns over from the board between the annual meeting during the ES failure/non-failure year (fiscal year t) and the second annual meeting following the ES failure/non-failure year (fiscal year t+2), and zero otherwise (see Figure 1). Following Ertimur et al. (2012), we examine turnover between t and t+2 (rather than between t and t+1). This longer window allows time for turnover in cases in which (i) the annual meeting in t+1 is relatively close to the ES failure event and (ii) it takes longer for the severity of the failure to be understood.[4]

As with many observational studies, endogeneity concerns can affect the causal interpretation of our findings. In particular, the estimates of the effect of ES failure on the outcomes we examine are potentially biased because the propensity to experience an ES failure is nonrandom. We alleviate this concern by employing entropy balancing, which reduces bias by making the treatment and control groups more similar on observable characteristics that affect the probability of an ES failure (Hainmueller, 2012). Entropy balancing assigns continuous weights to each observation in the control sample to match the moments of the covariate distributions to those of the treatment sample. We balance on mean, variance, and skewness.

Because ES failures take place at the firm level, we entropy balance on firm-level determinants of the probability of an ES failure. In a study of firms' remedial actions following major violations of environmental law, labor law or consumer safety rules, Cai et al. (2022) predict

[4] On staggered boards, directors may not be up for re-election for up to three years following the ES failure. Because director turnover tends to occur when directors are up for re-election, our turnover window may understate any penalties for these directors.

that the incidence of these violations varies with firm performance and size. Thus, we include firm performance (*ROA*, *Abnormal returns*) and firm size (*Size*) as determinants of the probability of ES failures. The size measure also addresses the concern that larger, more visible firms have more media coverage, as greater media coverage increases the likelihood that the media will report on incidents, which in turn increases the likelihood that RepRisk will identify incidents for these firms. We further expect that ES failures, like governance failures, will vary with the extent of monitoring. We include variables that capture monitoring by the board *(% Outside directors*, *Board size*) and by shareholders (*% Institutional ownership*, *Blockholder*) (e.g., Coles & Hoi, 2003; Del Guercio et al., 2008; Denis & Sarin, 1999; Ertimur et al., 2012; Ertimur et al., 2010; Farrell & Hersch, 2005; Farrell & Whidbee, 2000; Ferris et al., 2003; Fich & Shivdasani, 2007; Yermack, 2004). Finally, ES failures can be more likely for firms with overall lower levels of ES performance. We therefore also balance on the level of ES performance using the Refinitiv combined ES scores, *ES score*. We measure firm-level characteristics for entropy balancing in fiscal year t when ES failures take place.

Entropy balancing can assign large weights to some control sample observations to achieve balance, leading to small sample estimation bias where minor changes to the control sample can significantly alter estimated effects (McMullin & Schonberger, 2022). In our case, the maximum observational weight is 323.3. That is, at the extreme, a single non-ES failure observation is "selected" approximately 323 times to serve as the counter-factual. We note that the distribution of observational weights is highly skewed; extreme observational weights of over 100 are isolated to two firm-years (or 10 director-firm-years). When we exclude these observations from the analyses, our results remain qualitatively similar (results not tabulated).

Using the entropy-balanced sample, we estimate the following director-firm-year level logistic regression with standard errors clustered by firm.

$$Turnover_{t+2} = \alpha + \beta_1 ES\ failure_{it} + \sum \gamma_{1-13} Controls_{it} + IndustryFE + YearFE + \varepsilon_t \quad (1)$$

The dependent variable is *Turnover*, as defined above. The variable of interest is *ES failure*, an indicator variable that is equal to one for ES failure directors, i.e., directors who sit on the board of a firm with one or more ES failures in fiscal year t. A positive coefficient on *ES failure* (β_1>0) would be consistent with a reputation penalty that manifests as a higher probability of turnover from boards of ES failure firms. The control variables include the firm-level determinants on which we entropy balance. In addition, following prior studies (e.g., Cai et al., 2009; Ertimur et al., 2012; Ertimur et al., 2018), we control for director characteristics (*New director*, *Female*, *Age>65*, *Tenure*, and *Number of other directorships*) that may be associated with director turnover.[5] We also include industry and year fixed effects. Appendix A provides detailed variable definitions and data sources.

We report summary statistics for the variables used in this analysis, before entropy balancing, in Table 2, panel A. In the combined sample, the mean probability of turnover is 15.9%. This percentage is close to the turnover frequencies of 16.2% and 15.5% in Ertimur et al. (2010) and Ertimur et al. (2012), respectively. ES failure directors are more likely to turn over than non-failure directors are (16.5% vs. 15.3%, p<0.01). Director and firm characteristics are also consistent with Ertimur et al. (2010) and Ertimur et al. (2012), though they systematically differ between firms with ES failures and those without. Most notably in terms of economic significance, ES failure firms are larger (9.460 vs. 7.913, p<0.01) and have larger boards (11.187 vs. 9.870,

[5] In sensitivity tests, reported in Appendix B, we control for negative corporate governance events, in addition to board monitoring. Our results are qualitatively similar.

p<0.01) than non-failure firms. This could reflect the fact that larger firms are more likely to receive media attention, and therefore more likely to be over-represented in the ES failure sample. Larger firms, in turn, tend to have larger boards.

3.1.2. Results

Table 2, panel B presents the results of estimating Eq. (1). The coefficient of *ES failure* is positive and significant in the main specification, model (1) (β_1=0.142, p<0.05). This finding is consistent with ES failure directors experiencing turnover more frequently than non-failure directors. In terms of economic significance, as *ES failure* goes from zero to one, holding continuous control variables at their means and indicator variables at their medians, director turnover increases by 1.4%. This is an economically small increase given the average turnover rate of approximately 15.9%.

We next explore whether this on-average result systematically varies over our sample period during which the salience of ES issues may have increased in the director labor market as ES concerns became more prominent. We estimate Eq. (1) annually and report β_1 by year in Figure 2.[6] Perhaps surprisingly, we do not observe obvious time trends in director turnover following ES failures. Instead, we observe variation over time, without a consistent trend upward or even a marked increase in recent periods.

In model (2) we expand Eq. (1) to examine whether failure directors sitting on ES committees, who likely have greater ES oversight responsibilities, experience higher turnover from ES failure boards. To do so, we split *ES failure* into three mutually exclusive groups that capture both the presence of an ES committee and ES committee membership and create corresponding

[6] We entropy balance firm-level observations within year to estimate these annual regressions. However, some annual subsamples can only be balanced on the first and second moments, but not the third, due to non-convergence. Results are qualitatively similar when we use the entropy-balanced sample from the main regression.

indicator variables: directors at ES failure firms who sit on ES committees *(ES failure – director on ES committee*), directors at ES failure firms who do not sit on ES committees (*ES failure – director not on ES committee*), and directors at ES failure firms without ES committees (*ES failure – no ES committee at firm*). The intercept captures director turnover at non-failure firms. If ES committee directors at failure firms experience stronger reputation penalties than non-committee members, we will observe a positive coefficient on *ES failure – director on ES committee*. We find that the probability of turnover is higher for ES failure directors who are *not* on ES committees or when there is no ES committee at the firm than for non-failure directors; the coefficients on these indicators are positive and significantly different from zero. However, Wald tests indicate that director turnover does not vary systematically among the three groups of ES failure directors. Thus, we do not find evidence of more severe penalties for members of ES committees than for non-members.

In model (3) we explore whether director turnover varies with the severity of ES failures. We split *Max failure severity* into three mutually exclusive groups and create corresponding indicator variables: directors at ES failure firms with high, medium, and low severity incidents *(ES failure – high severity*; *ES failure – medium severity; ES failure – low severity*, respectively). The intercept captures non-failure directors. We find that, regardless of the severity of the failures, the probability of turnover is significantly higher for ES failure directors than for non-failure directors–the coefficients for all severity levels are significantly different from zero, increasing monotonically from 0.106 to 0.288 with the severity of the failure. Director turnover at firms with high severity ES failures is economically more meaningful than the average effect we document in model (1). The coefficient of 0.288 on *ES failure – high severity* represents a 2.6% greater probability of turnover for directors at firms with the highest severity failures than for directors at

non-failure firms, holding continuous variables at means and indicator variables at medians. Wald tests of differences in coefficients show that the probability of turnover is higher for directors of firms with high severity failures than medium (difference = 0.138, $p<0.05$) or low severity failures (difference = 0.182, $p<0.05$). We do not find a significant difference in the probability of turnover for directors of firms with medium and low severity failures (difference = 0.044, $p>0.10$).

The control variables load consistently in all specifications and in the expected directions (e.g., Cai et al., 2009; Ertimur et al., 2012). We find the probability of turnover is lower for new board members, when the firm has better accounting or stock performance, when the director has a greater number of other directorships, and when the firm is larger. The probability of turnover is higher for older directors, for directors with longer tenures, when the firm has a higher proportion of outside directors, when the board is larger, and when firms have higher ES scores.

Taken together, the results in Table 2 are consistent with ES failure directors experiencing some reputation penalties in the form of turnover from boards of ES failure firms. While the average effect is small (Table 2, panel B, model (1)), directors at firms with high severity ES failures experience a more economically meaningful increase in the likelihood of turnover. For example, the incremental probability of turnover following a severe ES failure is larger than the protective effect of being a newly elected director (0.288 compared to -0.245 in model (3)). We also note that the increased probability of turnover is not unrealistically large; it is much smaller than the effect of age (0.288 compared to 0.846 in model (3)). However, ES failure directors may leave voluntarily, perhaps to distance themselves from the ES failures or to avoid investing time and effort into addressing the failures. In Sections 4 and 5 we explore turnover beyond the ES failure firm and conduct additional analyses to help evaluate whether turnover at ES failure firms is forced, reflecting labor market penalties.

3.2. Changes in ES committee membership at ES failure firms

We next examine whether firms with ES committees remove directors from these committees following ES failures. While directors who sit on ES committees of failure firms do not experience higher turnover from the board (Table 2, panel B, model (2)), failure firms could remove these directors from ES committees to penalize them or because ES failures reveal that these directors are not effective on ES committees. To perform this analysis, we restrict the sample of 47,652 ES failure director-firm-year observations we discuss in Section 3.1.1 to those who served on ES committees at the time of the failures and who did not turn over from the board in the two years following the failure, resulting in a sample of 5,682 observations. Similarly, we restrict the sample of 39,930 non-failure director-firm-year observations to those who served on ES committees and did not turn over within two years, resulting in 1,890 observations. Then, for each observation, we define an indicator variable, *Lose ES committee*, that is equal to one if a director turns over from an ES committee between years t and t+2, and zero otherwise. As in the director turnover analysis, we entropy balance this sample on firm characteristics.[7]

Prior to entropy balancing, we find that 14.8% (16.1%) of ES committee members turn over from the ES committee following firm-years with (without) failures. This univariate difference is not significantly different from zero (-0.013, p>0.10) (not tabulated). Table 3, model (1) presents the results from estimating a modified version of Eq. (1) where the dependent variable is *Lose ES committee* and the measure of failures is *ES failure*.[8] We do not find evidence of differences in turnover from ES committees at failure versus non-failure firms; the coefficient on

[7] In this sample, entropy balancing assigns a maximum observational weight of 139.2. Similar to the turnover sample, extreme observational weights of over 100 are isolated to two firm-years (or three director-firm-years). When we exclude these observations from the analyses, our results remain qualitatively similar.

[8] In this analysis, we use industry fixed effects based on Fama and French 12 industry classifications because we lose 52 observations due to collinearity when we use industry fixed effects based on Fama and French 48 classification. Results are qualitatively similar when we use Fama and French 48 industry classification.

ES failure is not different from zero. To examine whether this finding varies over our sample period, we estimate the modified version of Eq. (1) with *Lose ES committee* as the dependent variable annually. Figure 3 reports β_1 by year. As in analyses of director turnover, we do not observe notable time trends in turnover from ES committee membership for failure directors.

In model (2), we explore whether turnover from the ES committee varies with the severity of ES failures. We detect a statistically significant *negative* association between directors of firms with medium severity ES failures (*ES failure – medium severity)* and the probability of turnover from ES committees (coefficient = -0.393, $p<0.10$). The probability of turnover from the ES committee does not differ between firms with severe ES failures and those without failures (coefficient = -0.238, $p>0.10$), nor does the probability of turnover differ among severity types; Wald tests of differences are not significant. Taken together, the findings from this analysis suggest boards are unlikely to remove failure directors from ES committees. Thus, we find no evidence that boards penalize failure directors or reevaluate their effectiveness to oversee ES activities through ES committee membership following ES failures.

3.3. Votes withheld at ES failure firms

3.3.1. Research design

To examine the effect of ES failures on votes withheld from directors we construct a sample of outside directors that are up for election at annual meetings. Beginning with the firm-years in Table 1, we restrict the initial sample of 10,804 firm-years to include only those firm-years with ISS Voting Analytics coverage in which at least one director is up for election, resulting in 10,477 firm-year observations. We compare votes withheld from directors at our treatment sample of ES failure firm-years to votes withheld from directors at our control sample of non-failure firm-years, as defined in Section 2. We exclude directors at non-failure firms from the non-failure sample

when they sit concurrently on boards of ES failure firms.[9] This results in a treatment sample of 35,181 director election observations in 4,971 ES failure firm-years and a control sample of 24,176 director election observations in 5,439 non-failure firm-years. We entropy balance this sample on firm characteristics as we balance the turnover sample in Section 3.1 and change in ES committee membership sample in Section 3.2.[10]

Using the entropy-balanced sample of treatment and control observations, we estimate the following director-firm-year level ordinary least squares regression with standard errors clustered by firm.

$$Votes\ withheld_{t+1} = \alpha + \beta_1 ES\ failure_{it} + \sum \gamma_{1-13} Controls_{it} + IndustryFE + YearFE + \varepsilon_t \quad (2)$$

The dependent variable is the number of votes withheld from a director scaled by the number of votes cast (*Votes withheld*).[11] The variable of interest is whether the director is an ES failure director (*ES failure*). A positive coefficient on *ES failure* (β_1>0) would be consistent with a reputation penalty that manifests as lower shareholder support for directors associated with ES failures. As in prior analyses, we control for firm-level characteristics on which we entropy balance and for director characteristics that may be associated with votes withheld in Eq. (2).[12] We also

[9] This restriction results in additional attrition of 67 firm-years.

[10] In this sample, entropy balance assigns a maximum observational weight of 337.2. Extreme observational weights of over 100 are isolated to two firm-years (or 10 director-firm-years). When we exclude these observations from the analyses, our results remain qualitatively similar.

[11] At firms with a plurality voting election system, shareholders can "withhold" votes from directors up for election to express their dissatisfaction. In an uncontested director election at firms with plurality voting systems, a single vote in favor is sufficient to elect a director; thus, there is no option to vote against directors. In contrast, at firms with a majority voting election system, shareholders can vote "against" a director (see https://www.sec.gov/spotlight/proxymatters/voting_mechanics.shtml). Throughout the paper we use the term "votes withheld" to refer both votes withheld and votes against directors at uncontested elections.

[12] In sensitivity tests, reported in Appendix B, we control for negative corporate governance events in addition to board level monitoring. Our results are qualitatively similar.

include year and industry fixed effects. Appendix A provides detailed variable definitions and data sources.

In the combined sample, the mean (median) percentage of votes withheld is 4.0% (1.7%) (not tabulated). This percentage is consistent with shareholder dissent being low, on average, at director elections, as documented in prior literature. For example, in Cai et al. (2009) and Ertimur et al. (2012) votes withheld from directors average 5.5%. Prior to entropy balancing, mean and median votes withheld are statistically lower in the ES failure sample, though the differences are economically negligible (-0.5% and -0.1%, respectively). Distributions of control variables and differences between failure and non-failure directors are consistent with those in Table 2, panel A (not reported).

3.3.2. Results

Table 4 presents the results of estimating Eq. (2). Model (1) shows a positive and significant coefficient on *ES failure* (β_1=0.008, p<0.01), consistent with ES failure directors garnering lower shareholder support than non-failure firm directors. However, the documented effect is economically negligible: the coefficient in this analysis suggests that failure directors experience a penalty of approximately one-fifth of average votes withheld (4.0%, reported above). In comparison, Ertimur et al. (2012) find that votes withheld from directors of firms involved in option backdating scandals are almost twice as high as votes withheld from directors of firms not involved in such scandals, and votes withheld of 20% or higher are typically considered sufficient dissatisfaction to potentially spur board actions (Del Guercio et al., 2008; Ertimur et al., 2012). To examine whether shareholders are more likely to withhold votes from ES failure directors in more recent years, we estimate Eq. (2) annually. Figure 4 reports β_1 by year.[13] As in analyses of director

[13] To estimate Eq. (2) annually, we entropy balance firm-level observations within year. In some annual subsamples we can entropy balance only on the first and second moments, but not on the third moment, because of non-

turnover and ES committee turnover, we do not observe notable time trends in votes withheld from failure directors.

In model (2) we expand Eq. (2) to examine whether penalties are stronger for directors serving on ES committees at the time of the ES failures. As in the turnover analyses, we split *ES failure* into three mutually exclusive groups and create corresponding indicator variables, *ES failure – director on ES committee*, *ES failure – director not on ES committee*, *ES failure – no ES committee at firm*. The coefficients on these indicator variables capture votes withheld from these categories of directors relative to votes withheld from non-failure directors. We find that votes withheld are significantly higher for all three categories of ES failure directors than for non-failure directors, with the coefficients ranging from 0.007 to 0.009 (statistically significant at 1%). Using Wald tests, we find that ES failure directors serving on ES committees have *fewer* votes withheld than failure directors who are not on ES committees (difference = -0.002, $p<0.10$), which is inconsistent with ES committee members experiencing stronger penalties than non-members. We do not find differences in the coefficients between members of ES committees and directors at firms without ES committees. Thus, we do not find evidence of more severe penalties for members of ES committees than non-members.

In model (3) we explore whether the severity of the ES failure affects votes withheld from directors. We find that votes withheld are significantly higher for all three categories of ES failure severity than for non-failure directors—the coefficients for all severity level indicators are positive and significant at the 1% level and increase monotonically with severity from 0.005 to 0.018. The coefficient of *ES failure – high severity* of 0.018 corresponds to a 45% increase in votes withheld. However, given the low mean value of votes withheld (4.0%), this penalty is still economically

convergence. The results are qualitatively similar when instead we estimate annual regressions for the entropy-balanced sample from the main analysis.

small. Using Wald tests, we detect significant differences in the coefficients among severity levels. More votes are withheld from directors of firms with high severity failures than medium (difference = 0.010, $p<0.01$) or low severity failures (difference = 0.013, $p<0.01$) and more votes are withheld from directors of firms with medium severity failures than low severity failures (difference = 0.003, $p<0.10$).

The control variables load consistently in all specifications, and in the expected directions (e.g., Cai et al., 2009; Ertimur et al., 2012; Ertimur et al., 2018). We find votes withheld are lower for female board members, when the firm has better performance (measured as either earnings or returns), when the firm has higher ES scores, and when the firm has a greater percentage of outside directors or a larger board. We find that votes withheld are higher when directors have longer tenures or a greater number of other directorships.

The key takeaway from Table 4 is that, though ES failures have some effect on voting outcomes, voting shareholders do not impose economically meaningful penalties on ES failure directors. In the next Section, we explore whether shareholders vary in the extent to which they hold directors accountable for ES failures.

3.3.3. ESG mutual fund voting

The evidence so far suggests that ES failure directors do not experience economically meaningful voting penalties. In this Section, we explore whether shareholders vary in the extent to which they hold directors accountable for ES failures. To do so, we compare the voting behavior of ESG-oriented mutual funds (hereafter ESG funds) to voting behavior of other mutual funds. ESG funds claim to invest in companies with good ES performance and typically also claim to engage portfolio firms to improve their ES conduct (Heath et al., 2023). To the extent that ESG funds are more likely to withhold votes from ES failure directors, the weak on average result we

document can understate reputation penalties these directors experience at firms with greater ESG fund ownership.

Exploiting the SEC rule that requires mutual funds to disclose how they vote proxies relating to portfolio securities they hold,[14] we construct a sample of mutual fund votes on director elections using the ISS Voting Analytics Mutual Fund Vote Records for the ES failure firm-years in our initial sample. We rely on the scheme from Robinson (2023) to classify mutual funds as either ESG or non-ESG funds.[15] We restrict the sample to director elections in which both ESG and non-ESG funds voted and compare reputation penalties within firm-years with ES failures. As such, we do not construct an entropy-balanced control sample for this analysis. We estimate the following logistic regression with standard errors clustered by firm for the resulting sample of 17,232,291 mutual fund-director-firm-year observations:

$$Fund\ vote\ withheld_{t+1} = \alpha + \beta_1 ESG\ fund_{it} + \sum \gamma_{1-13} Controls_{it} + IndustryFE + YearFE + \varepsilon_t \quad (3)$$

The dependent variable, *Fund vote withheld*, is an indicator variable set to one if the mutual fund voted against or withheld votes from the director up for election, and zero otherwise. *ESG fund* is an indicator variable equal to one for ESG funds and zero otherwise. A positive coefficient on *ESG fund* (β_1>0) would be consistent with lower shareholder support from ESG funds than non-ESG funds following ES failures. We include the same vector of control variables in this analysis as we use in main tests of votes withheld from directors, as well as industry and year fixed effects.

[14] https://www.sec.gov/reportspubs/investor-publications/investorpubsmfproxyvoting

[15] We thank Scott Robinson for sharing the ESG fund classification data with us. Robinson (2023) first creates a list of commonly used phrases in the names of Morningstar's ESG-designated mutual funds. He then compares this list to the mutual fund names in ISS Voting Analytics Mutual Fund Vote Records dataset. Robinson (2023) designates mutual funds whose names include at least one ESG phrase as ESG funds, and those without at least one ESG phrase as non-ESG funds.

In the combined sample, the mean (median) probability of a mutual fund withholding votes from a director is 3.9% (0%) (not tabulated). This percentage is consistent with the low frequency of votes withheld we find in the prior Section. ESG funds are significantly more likely than non-ESG funds to withhold votes from directors. The mean probability of ESG funds withholding votes is 10.6%, compared to only 3.6% for non-ESG funds (difference=0.70, $p<0.01$, not tabulated). We present the results of estimating Eq. (3) in Table 5. The coefficient on *ESG fund* is positive and significant (β_1=1.274, $p<0.01$). In terms of economic significance, as *ESG fund* goes from zero to one, holding continuous control variables at their means and indicator variables at their medians, mutual fund votes withheld increase by 4.5%. This result provides some evidence that ESG funds do monitor boards with respect to ES concerns, and that they impose reputation penalties following ES failures.[16]

4. Penalties at non-failure firms

The results so far are consistent with statistically significant, but mostly economically weak penalties for ES failure directors at failure firms. In this section, we investigate whether ES failure directors experience reputation penalties at non-failure firms where they hold outside board seats. Specifically, we examine turnover from non-failure firms, changes in committee assignments at non-failure firms, and votes withheld from failure directors at non-failure firms.

We perform these analyses for two reasons. First, examining potential spillover effects for failure directors at non-failure firms allows us to assess the severity of penalties failure directors face in the labor market collectively. Prior literature provides mixed results of penalties beyond

[16] Heath et al. (2023) find that socially responsible investment (SRI) funds invest in a portfolio of firms with better environmental and social conduct but do not follow through on their promise of impact as captured by ES outputs (firm pollution, board diversity and employee wellbeing). Heath et al. (2023) further document that SRI funds impact neither the likelihood of observing an ES-related shareholder proposal on the ballot nor the likelihood that such proposals receive majority support. In contrast, Dikolli et al. (2022) find that SRI funds are more likely than other mutual funds to vote in support of ES shareholder proposals.

the failure firm in the context of governance failures (Ertimur et al., 2012; Fich & Shivdasani, 2007; Srinivasan, 2005) and, in our setting, any spillover effects might reflect differing shareholder preferences between failure and non-failure firms. Second, analyses of penalties at non-failure firms provide further insights into the director turnover results. Specifically, the greater director turnover at ES failure firms we observe could reflect forced turnover, where firms push directors out in response ES failures. Alternatively, directors may leave failure firms voluntarily either to protect their reputations from further damage or because they are unwilling to expend additional effort to address ES failures. Evidence that ES failure directors are more likely to turn over from boards of non-failure firms compared to non-failure directors would lend support to the reputation penalties interpretation of our turnover results.

4.1. Research design

To examine the reputation effects of ES failures at non-failure firms, we start with the sample of outside directors on boards of non-failure firms at the annual meeting during the fiscal year of an ES failure (at annual meeting t). In these analyses, the treatment group is ES failure directors who also sit on non-failure firms' boards, and the control group is non-failure directors at these same non-failure firms. That is, we restrict our sample to non-failure firms that have both ES failure directors (i.e., directors who are serving concurrently at another firm with an ES failure) and non-failure directors. Because we compare reputation penalties for failure and non-failure directors *within the same firm*, we do not construct entropy-balanced control samples.

For the turnover analyses, our sample is 26,738 outside director-firm-years: 5,842 failure director-firm-years and 20,896 non-failure director-firm-years at 3,180 non-failure firm-years. We measure turnover from non-failure firms between the ES failure in fiscal year t and the second annual meeting following the ES failure, fiscal year t+2. To test the association between turnover

from non-failure firms and ES failure, we modify the logistic regression in Eq. (1) so that the dependent variable is turnover from the non-failure firm and control variables are measured at the non-failure firm in year t.

For tests of changes in committee assignments at non-failure firms, we examine whether directors lose ES committee positions or key committee assignments, where key committees include the audit, nominating, and compensation committees. Whereas removals from ES committees could reflect reevaluations of committee members' abilities to serve on these committees rather than penalties, removals from key committees more clearly represent reputation penalties. For this analysis, we begin with the sample of 26,738 outside director-firm-years at non-failure boards at the time of the ES failure. We further require the directors to remain on the board during the two-year window over which we measure committee changes (i.e., t through t+2) so that we do not conflate board turnover with committee turnover. This results in a sample of 22,622 observations at non-failure firms: 5,029 failure director-firm-years and 17,593 non-failure director-firm-years at 3,180 non-failure firm-years. For tests of the probability of losing an ES committee assignment, we further restrict the sample to non-failure firms with ES committees and to directors who sat on these committees in year t, resulting in a sample of 1,489 observations with 320 failure director-firm-years and 1,169 non-failure director-firm-years at 408 non-failure firm-years. We re-estimate Eq. (1) with changes in key committees or the probability of losing an ES committee appointment as the dependent variables and control variables measured at the non-failure firm in year t. We use ordinary least squares regression when the dependent variable is changes in key committees and logistic regression when the dependent variable is the probability of losing an ES committee appointment.

Finally, to investigate voting penalties for failure directors at non-failure firms, we restrict the sample to directors who are up for election at the non-failure firm at the first annual meeting after the fiscal year of the ES failure. This results in a sample of 2,350 ES failure director elections and 10,690 non-failure director elections over 2,307 non-failure firm-years. We re-estimate Eq. (2) using votes withheld at non-failure firms as the dependent variable. We measure firm-specific control variables at the non-failure firms where the director is up for election.

4.2. Results

Table 6, panel A presents the results of tests of the association between ES failures and turnover from non-failure firms. We do not detect differences in the probability of turnover between ES failure directors and non-failure directors when we measure ES failures using the indicator for an ES failure or when we measure ES failures using the three measures of severity. The coefficient on *ES failure* is not different from zero in model (1) (β_1=-0.031, p<0.10) and none of the coefficients for ES failure severity levels are different from zero in model (2). Table 6, panel B provides the results of estimating the modified versions of Eq. (1) in which changes in committee assignments are the dependent variables. We do not find differences between failure and non-failure directors in either the change in the number of committee assignments (models (1) and (2)) or the probability that directors lose their ES committee assignments (models (3) and (4)). Neither the coefficients on *ES failure* nor the coefficients on the ES failure severity indicators are different from zero in any model. Table 6, panel C presents the results of tests of votes withheld at non-failure firms. We do not detect differences in votes withheld between ES failure directors and non-failure directors in the multivariate specifications; the coefficient on *ES failure* is not different from zero in model (1) and coefficients on severity indicators are not different from zero in model (2).

The results of these analyses are inconsistent with the idea that ES failures result in reputation penalties in the form of turnover, removal from prestigious committee appointments, or more votes withheld at non-failure firms following ES failures. This lack of spillover of reputation penalties is consistent with Ertimur et al. (2012), who find little evidence that shareholders consider directors' failures at one firm when assessing their performance at another. These results also suggest that the higher probability of turnover at failure firms we find in Section 3.1 may be voluntary, rather than representing a penalty levied by the ES failure firm. We investigate this possibility further in the next section.

5. Nature of turnover following ES failures

In this section we perform two additional analyses to further explore whether the higher probability of turnover for ES failure directors we detect in Section 3.1 reflects forced or voluntary turnover. First, we examine turnover from non-failure firm boards conditional on turnover from ES failure firm boards. To the extent that director turnover at ES failure firms is forced, we expect ES failure directors who lose their seats at failure firm boards to be more likely to experience turnover at non-failure firms as well. We do not expect to observe a differential effect on turnover at non-failure firms' boards for directors who leave ES failure firm boards voluntarily because they do not need to distance themselves from the non-failure firms or invest time and effort into addressing any ES failures at these firms, as they would at the ES failure firm.

To investigate turnover at non-failure firms conditional on turnover from failure firms, we estimate the following ordinary least squares regression on the sample of 26,738 outside director observations at non-failure firms we discuss in Section 4.1 with standard errors clustered by firm.

$$Turnover_{t+2} = \alpha + \beta_1 ES\ failure - no\ turnover\ from\ ES\ failure\ firm_{it+2} + \beta_2 ES\ failure - turnover\ from\ ES\ failure\ firm_{it+2} + \sum \gamma_{1-13} Controls_{it} + Industry\ FE + Year\ FE + \varepsilon_{it} \quad (4)$$

The dependent variable, *Turnover*, is an indicator variable that is equal to one if the director turns over from the board of the non-failure firm between annual meeting t and annual meeting t+2. Control variables are the same as those we use in Eq. (1), measured at the non-failure firm at time t. The term of interest in this specification is *ES failure – turnover from ES failure firm*, which is set to one if the ES failure director turns over from the failure firm between t and t+2. A positive and significant coefficient on this term ($\beta_2>0$) would be consistent with a reputation penalty that manifests as a higher probability of turnover from boards of non-failure firms when failure directors turn over from ES failure firms. We also include an indicator variable, *ES failure – no turnover from ES failure firm*, which is set to one if the ES failure director does not turn over from the failure firm between t and t+2. The intercept captures non-failure director turnover.

As noted in Section 4.1, 5,842 of the 26,738 outside director observations are failure director observations. Of these, 738 turn over from ES failure boards between t and t+2, and 5,104 remain on ES failure firm boards. We present the results of estimating Eq. (4) in Table 7, panel A. The coefficient on *ES failure – turnover from ES failure firm* is positive and significant (β_2=0.678, p<0.01), consistent with reputation penalties extending to non-failure firms when failure directors turn over from failure firms. This result suggests that turnover from the ES failure firm is unlikely to be voluntary. Interestingly, we find a negative coefficient on *ES failure – no turnover from ES failure firm* (β_1=-0.178, p<0.01), indicating that ES failure directors who do not turn over from the failure firm are *less* likely to turn over at the non-failure firm relative to non-failure directors. Using a Wald test, we find that the coefficients are statistically different from each other (p<0.05).

Second, to the extent that director turnover at ES failure firms is voluntary (forced), we expect directors who turn over to be more likely to join firms that are at least as prestigious as (less prestigious than) ES failure firms. To examine differences in board seats left and gained, we construct a sample of ES failure directors who depart ES failure firms during the turnover window and join at least one other board over the same window. We identify 898 newly gained seats–only a small fraction of the 7,848 director-turnover events at ES failure firms. It is noteworthy in and of itself that the overwhelming majority of failure directors who turn over from the ES failure firm do not gain new seats over the same period. This indicates that turnover from failure firms is unlikely to stem from a voluntary move to another board.

Following prior literature, we measure prestige of board appointments using firm size, measured as market capitalization (Chen et al., 2022; Dou, 2017; Masulis & Mobbs, 2014) (*Size*), director compensation (*Director compensation*), and the connectedness of board members (Engelberg et al., 2013; Larcker et al., 2013; Wasserman & Faust, 1994) (*Board connectedness*). We use the natural log of director compensation because the distribution is right-skewed. We also examine differences in ES scores between the firm from which the director turned over and boards directors join to assess whether directors move to firms that place different emphasis on ES issues (*ES score*). We measure *ES score* at the ES failure firm in the year of the director's turnover from the failure firm, and in the appointment year for the new board seat. The sample sizes vary across prestige measures because some of the measures are not included in our regression analyses or because the new board is not included in our sample. For each comparison variable, we require the ES failure director to be in both the gained seat and the lost seat samples. The samples for gained seats are larger than samples for lost seats because directors can gain more than one new directorship.

We present tests of differences in means and medians of these four measures in Table 7, panel B. We find that directors who leave ES failure firms obtain new directorships at smaller firms (mean difference = -1.028, p<0.01; median difference = -1.090, p<0.01), and on boards that are less connected (mean difference = -0.672, p<0.01; median difference = -0.294, p<0.01). We further find that they earn less compensation (mean difference = -0.347, p<0.01; median difference = -0.501, p<0.01) compared to ES failure firms. These results provide consistent evidence that directors obtain less prestigious board positions following turnover from ES failure firms and bolster the evidence that turnover following an ES failure is unlikely to be voluntary.

Finally, we note that directors who turn over from ES failure firms tend to place on boards with lower ES scores than the ES failure firms they left (mean difference = -0.117, p<0.01; median difference = -0.170, p<0.01), consistent with these directors joining boards that either place less emphasis on ES outcomes, or who are seeking ES expertise to improve their ES outcomes. We leave investigations of this phenomenon to future research.

6. Conclusion

In this paper we examine whether outside directors are held accountable when their firms experience environmental or social (ES) failures. We document economically meaningful increases in the probability of turnover from ES failure firm boards following the most severe failures. We find no evidence that failure directors are more likely to lose their positions on ES committees compared to non-failure directors. In tests of shareholder votes at uncontested director elections, we find that votes withheld from failure directors are higher compared to non-failure directors. However, the economic magnitude of the voting penalty is negligible in both absolute and relative terms (e.g., when compared to governance failures, such as involvement in the option backdating scandal).

Next, we explore whether reputation effects extend beyond ES failure firms to other boards on which failure directors sit. We find little evidence of spillover effects. However, in additional analyses, we find that turnover from non-ES failure firms is higher for ES failure directors who turn over from ES failure firms. Further, the small number of directors who turn over from ES failure firm boards and gain other board seats do so at less prestigious firms, suggesting that the turnover we observe at ES failure firms is unlikely to be voluntary.

A limitation of our study is that it does not explore the mechanisms for the reputation penalties we observe. Specifically, we do not investigate whether the penalties stem from financial consequences of ES failures or from reputational damage to the labor market's collective assessment of directors' characters, values, or abilities.

Collectively, our results suggest that labor market incentives and shareholder voting may provide some *ex ante* incentives for directors to effectively manage ES activities and risks. Thus, our findings contribute to the literatures on shareholder voting as a measure of shareholder dissatisfaction with directors and the director labor market as an *ex post* settling up mechanism. We also contribute to the emerging literature on the roles of ES investments, outcomes and failures in executive and director labor markets; our study focuses on whether the director labor market values directors' abilities to effectively monitor and advise management on environmental and social issues.

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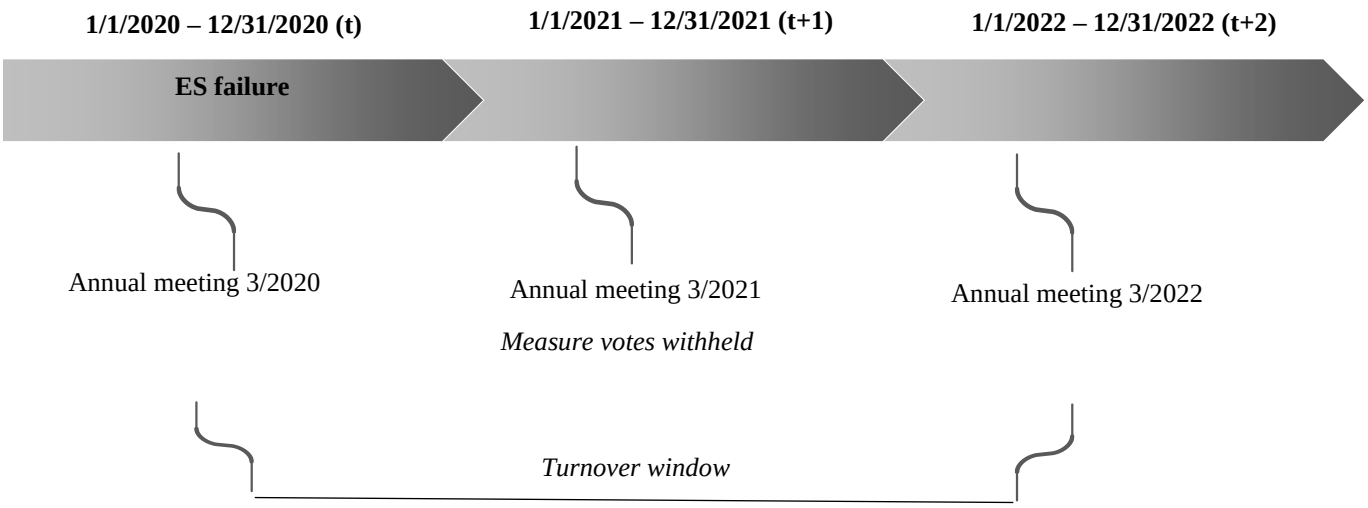
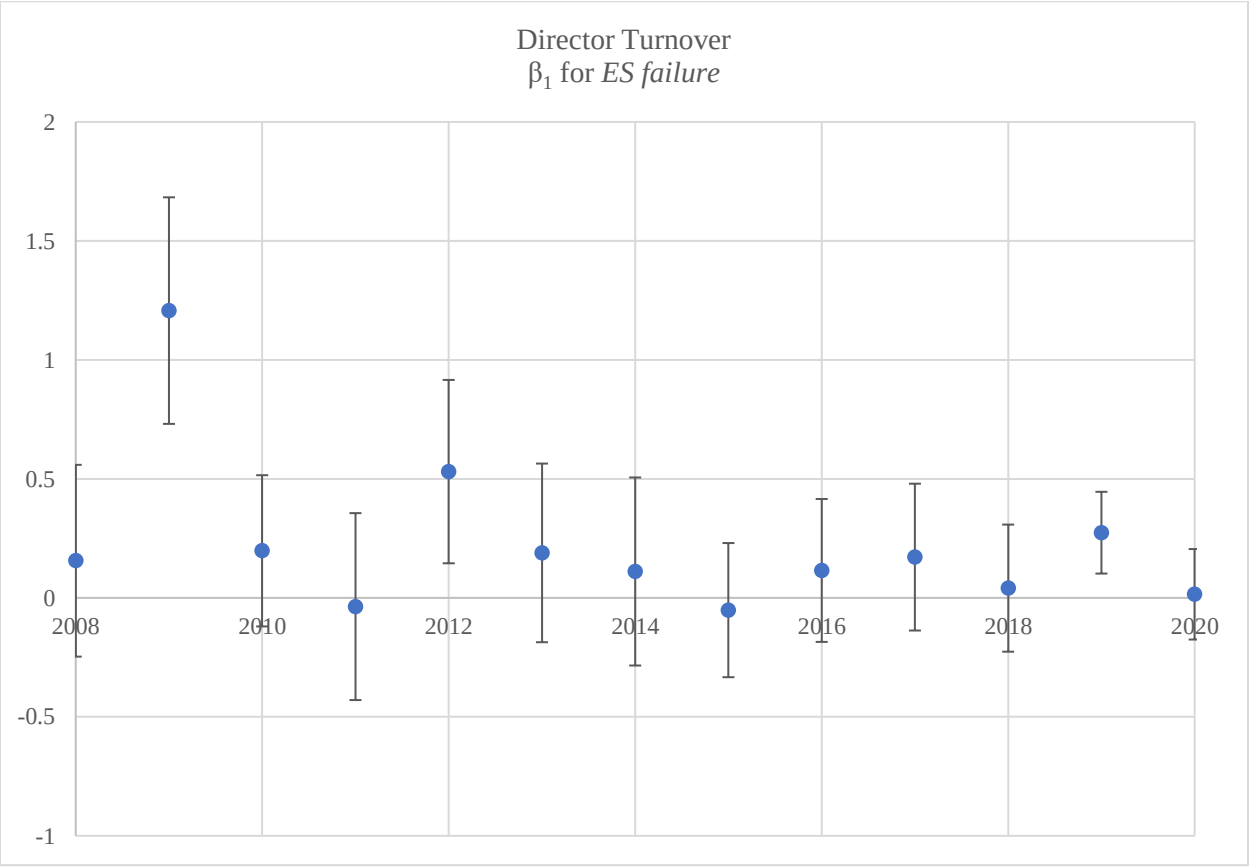
Figure 1: Measurement timing



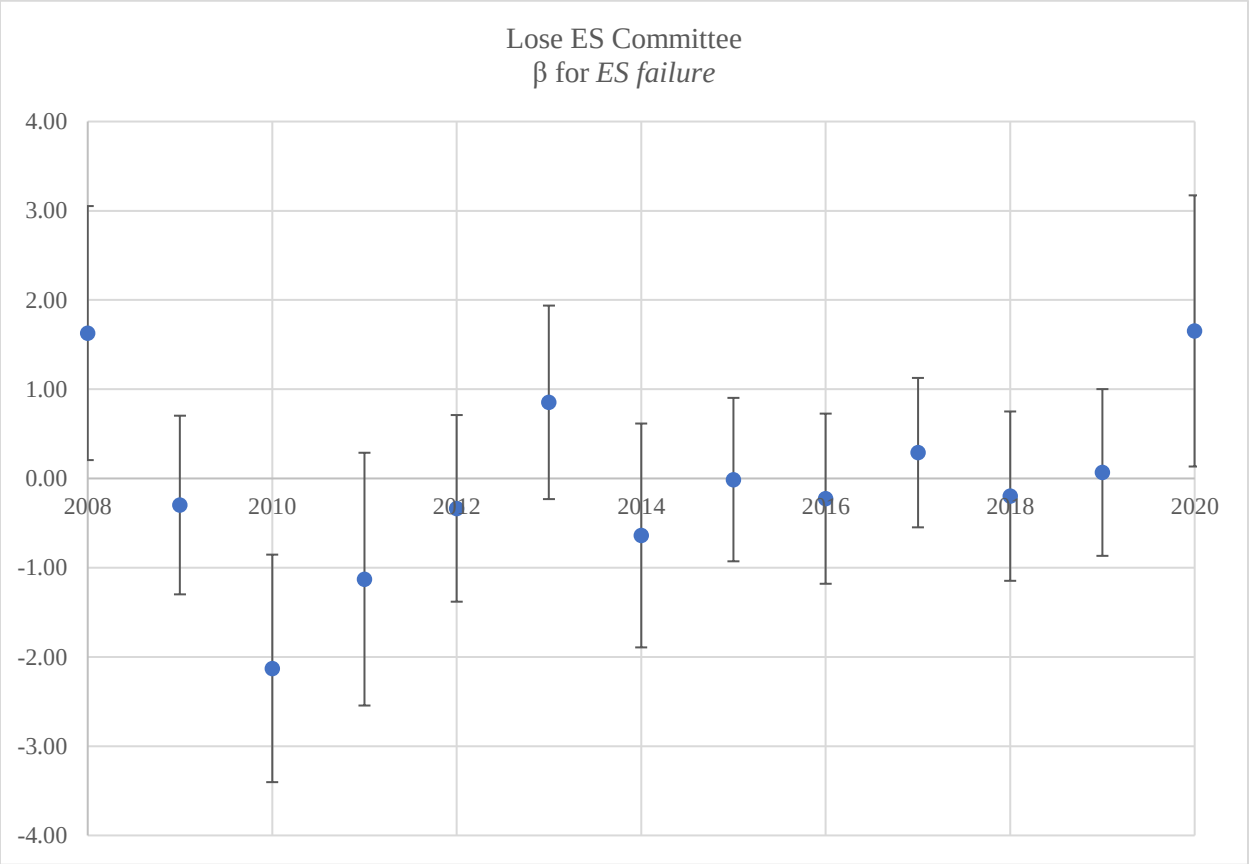
This figure presents the timing of measurement of ES failures and votes withheld from directors following ES failures, and the window over which we measure director turnover for a hypothetical December fiscal-year-end firm.

Figure 2: Director turnover as a function of ES failure by year



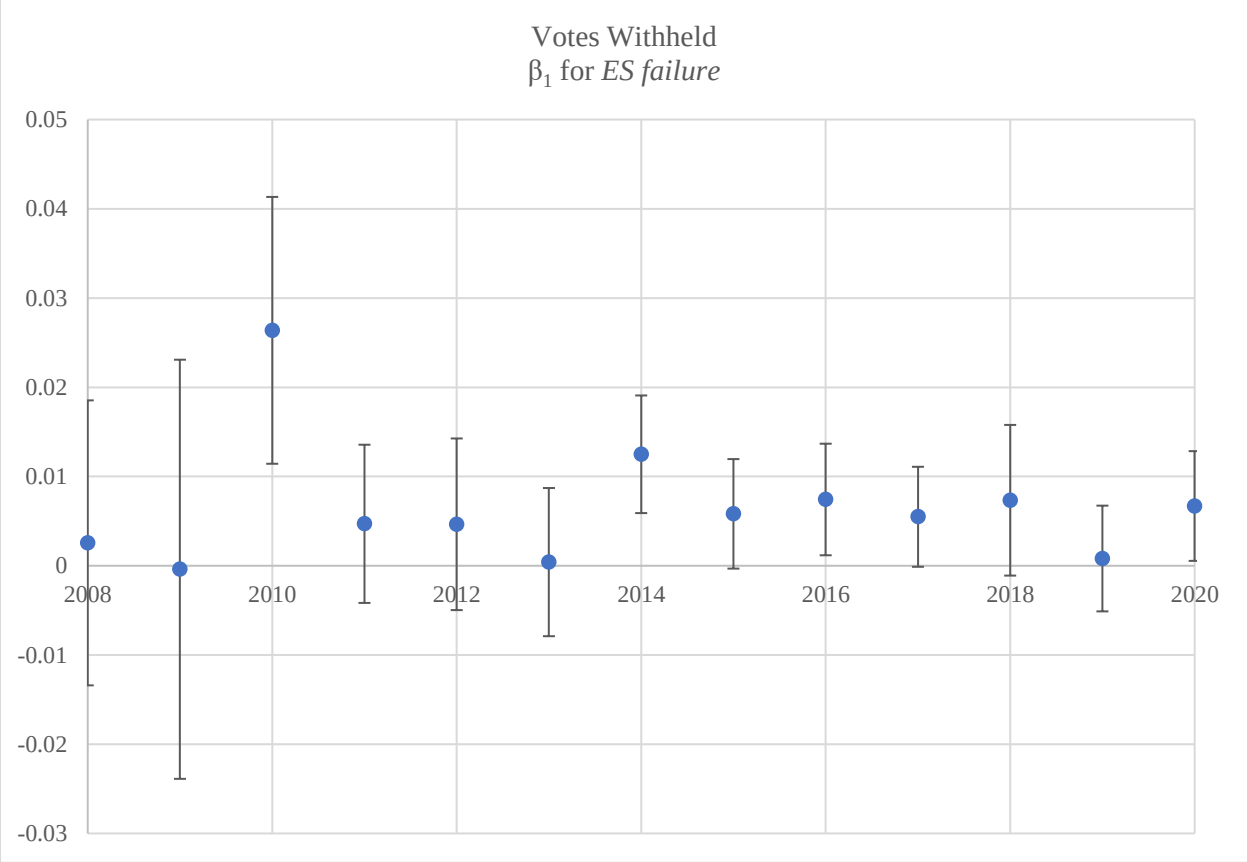
The graph presents the coefficients for *ES failure* (β_1) from estimating Eq. (1) by year for *Turnover*. The graph includes 95% confidence interval bars.

Figure 3: Lose ES committee as a function of ES failure by year



The graph presents the coefficients for *ES failure* (β_1) from estimating a modified Eq. (1) by year for *Lose ES committee*. The graph includes 95% confidence interval bars.

Figure 4: Votes withheld as a function of ES failure by year



The graph presents the coefficients for *ES failure* (β_1) from estimating Eq. (2) by year for *Votes withheld*. The graph includes 95% confidence interval bars.

Table 1: Distributions of risk incidents and ES failure measures

Category	Incident type	Mean	SD	P25	Median	P75	P99
Environmental	Animal mistreatment	0.051	0.396	0	0	0	2
	Impacts on landscapes, ecosystems, and biodiversity	0.891	4.084	0	0	0	16
	Climate change, GHG emissions, and global pollution	0.474	2.522	0	0	0	9
	Local pollution	0.720	3.315	0	0	0	12
	Waste issues	0.247	1.084	0	0	0	5
	Overuse and wasting of resources	0.077	0.530	0	0	0	2
Social	Child labor	0.125	0.867	0	0	0	4
	Discrimination in employment	0.191	0.911	0	0	0	4
	Forced labor	0.162	1.043	0	0	0	4
	Freedom of association and collective bargaining	0.138	0.966	0	0	0	3
	Human rights abuses, corporate complicity	0.765	3.783	0	0	0	14
	Impacts on communities	0.991	3.982	0	0	0	17
	Local participation issues	0.148	0.819	0	0	0	4
	Occupational health and safety issues	0.386	2.135	0	0	0	7
	Poor employment conditions	0.510	2.831	0	0	0	9
	Social discrimination	0.087	0.667	0	0	0	2
	Anti-competitive practices	0.351	2.011	0	0	0	8
	Corruption, bribery, extortion, money laundering	0.427	2.046	0	0	0	9
	Misleading communication	0.301	1.371	0	0	0	6
	Tax evasion	0.097	0.564	0	0	0	2
	Tax optimization	0.199	1.159	0	0	0	3
Cross-cutting	Controversial products and services	0.572	3.296	0	0	0	12
	Products (health and environmental issues)	0.519	3.324	0	0	0	11
	Supply chain issues	0.647	4.120	0	0	0	14
	Violation of international standards	0.130	0.561	0	0	0	3
	Violation of national legislation	1.896	7.317	0	0	1	33
Governance	Executive compensation issues	0.105	0.543	0	0	0	2
	Fraud	0.650	3.858	0	0	0	12
ES failure measures	*ES failure*	0.469	0.499	0	0	1	1
	Max failure severity	0.823	0.962	0	0	2	3
	Max failure severity conditional on *ES failure* = 1	1.755	0.580	1	2	2	3

This table provides the descriptive information on risk incidents from the RepRisk database for the 10,804 firm-year observations in the initial sample. *ES failure* is set to one if RepRisk identifies at least one incident from the environmental, social or cross-cutting categories in a fiscal year, and zero otherwise. *Max failure severity* is the maximum value of the Severity variable provided by RepRisk in a fiscal year.

Table 2: Director turnover from the ES failure firm

Panel A: Descriptive statistics for the director turnover sample

	All directors			ES failure directors			Non-failure directors			Test of differences With ES failures vs. Without ES failures			
	N = 87,582			N = 47,652			N = 39,930			Mean (t-test)		Median (Wilcoxon)	
Variable	Mean	SD	Median	Mean	SD	Median	Mean	SD	Median	Diff.	t-statistic	Diff.	z-statistic
Turnover	0.159	0.366	0.000	0.165	0.371	0.000	0.153	0.360	0.000	0.012***	4.72	0.000***	4.72
New director	0.092	0.289	0.000	0.091	0.288	0.000	0.092	0.289	0.000	-0.001	-0.46	0.000	-0.46
Female	0.202	0.401	0.000	0.222	0.416	0.000	0.177	0.381	0.000	0.045***	16.89	0.000***	16.87
Age > 65	0.417	0.493	0.000	0.419	0.493	0.000	0.416	0.493	0.000	0.003	0.73	0.000	0.73
Tenure	8.387	7.023	6.600	8.138	6.644	6.600	8.684	7.439	6.600	-0.546***	-11.46	0.000***	-4.95
N Other directorships	0.588	0.848	0.000	0.756	0.920	0.000	0.388	0.704	0.000	0.368***	65.46	0.000***	65.49
% Outside directors	0.873	0.061	0.889	0.883	0.056	0.900	0.861	0.064	0.889	0.022***	52.97	0.011***	74.48
Board size	10.587	2.332	10.000	11.187	2.181	11.000	9.870	2.303	10.000	1.317***	86.77	1.000***	90.81
ROA	0.047	0.072	0.042	0.050	0.067	0.045	0.044	0.078	0.038	0.006***	11.90	0.007***	13.40
Abnormal returns	0.030	0.282	0.025	0.016	0.260	0.017	0.046	0.305	0.035	-0.030***	-15.57	-0.018***	-13.31
% Inst. Ownership	0.656	0.330	0.778	0.658	0.319	0.771	0.653	0.343	0.788	0.005*	2.46	-0.017***	-9.69
Blockholder	0.829	0.376	1.000	0.806	0.395	1.000	0.857	0.350	1.000	-0.051***	-20.09	0.000***	-20.04
Size	8.755	1.493	8.576	9.460	1.436	9.443	7.913	1.062	7.910	1.547***	178.23	1.533***	155.03
ES score	0.321	0.161	0.294	0.390	0.160	0.398	0.238	0.119	0.217	0.152***	156.43	0.181***	137.18

Panel B: Multivariate tests of the association between ES failures and director turnover from the ES failure firm

	Turnover		*Turnover*		*Turnover*	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Variable	(1)		(2)		(3)	
Intercept	-4.694***	-10.82	-4.694***	-10.82	-4.734***	-10.93
ES failure	0.142**	2.45				
ES failure – director on ES committee			0.142	1.63		
ES failure – director not on ES committee			0.143*	1.66		
ES failure – no ES committee at firm			0.142**	2.58		
ES failure – high severity					0.288***	3.00
ES failure – medium severity					0.150**	2.31
ES failure – low severity					0.106**	2.00
New director	-0.244***	-2.84	-0.244***	-2.84	-0.245***	-2.85
Female	-0.166	-1.59	-0.166	-1.59	-0.167	-1.60
Age>65	0.846***	13.51	0.846***	13.53	0.846***	13.50
Tenure	0.042***	11.46	0.042***	11.45	0.042***	11.49
N Other directorships	-0.117***	-5.22	-0.117***	-5.21	-0.118***	-5.25
% Outside directors	1.633***	4.14	1.632***	4.15	1.623***	4.11
Board size	0.079***	6.19	0.079***	6.16	0.080***	6.25
ROA	-1.854***	-6.30	-1.854***	-6.30	-1.831***	-6.23
Abnormal returns	-0.197***	-2.86	-0.197***	-2.87	-0.188***	-2.76
% Institutional ownership	-0.120	-1.26	-0.120	-1.27	-0.116	-1.22
Blockholder	0.006	0.10	0.006	0.10	0.005	0.08
Size	-0.073***	-3.03	-0.073***	-3.01	-0.081***	-3.27
ES score	0.536***	3.03	0.535***	3.01	0.506***	2.84
Observations	87,582		87,582		87,582	
Pseudo R-squared	0.07		0.07		0.07	
Fixed effects	Industry, Year		Industry, Year		Industry, Year	
Wald tests			Coefficient	χ^2	Coefficient	χ^2
ES failure – director on ES committee vs not on ES committee			-0.001	0.00		
ES failure – director on ES committee vs no ES committee at firm			0.000	0.00		
ES failure – high severity vs. medium severity					0.138**	4.41
ES failure – high severity vs. low severity					0.182**	5.48
ES failure – medium severity vs. low severity					0.044	0.98

This table reports the results for director turnover from the ES failure firm. Panel A provides the descriptive statistics for the variables used in tests of the association between ES failure and director turnover (87,582 director-firm-year observations). *Turnover* is an indicator variable equal to one if the director loses her or his board seat. *New director* is an indicator variable that is equal to one if the director is in his or her first year on the board, and equal to zero otherwise. *Female* is an indicator variable that is equal to one for female directors, and equal to zero otherwise. *Age > 65* is an indicator variable that is equal to one if the director is older than 65 at the time of the annual meeting, and equal to zero otherwise. *Tenure* is the number of years the director has been on the board at the time of the annual meeting. *Number of other directorships* (abbreviated as *N Other directorships*) is the number of other boards in the BoardEx universe on which the director serves as an outside director in the year of the annual meeting. *% Outside directors* is the percentage of outside directors sitting on the board at the time of the annual meeting. *Board size* is the number of directors sitting on the board at the time of the annual meeting. *ROA* is earnings before extraordinary items (Compustat data item ib) scaled by average total assets for the fiscal year ending before the annual meeting. *Abnormal returns* is the one-year cumulative abnormal return of the last 12 months of the fiscal period. *% Institutional ownership* (abbreviated as *% Inst. ownership*) is the percentage of shares owned by institutional investors. *Blockholder* is an indicator variable that is equal to one if there is at least one institution that owns at least 5% of the firm's equity, and equal to zero otherwise. *Size* is the natural logarithm of market value of equity. *ES score* is a composite score provided by Refinitiv for a firm's environment and social performance. Panel B reports the logistic regression results for director turnover as a function of ES failures (Eq. 1). In model (1), *ES failure* is an indicator variable set to one for directors serving on ES failure firms, equal to zero otherwise. In model (2), we separate *ES failure* into three mutually exclusive groups: directors at ES failure firms who sit on ES committees (*ES failure – director on ES committee*), directors at ES failure firms who do not sit on ES committees where an ES committee exists (*ES failure – director not on ES committee*), and directors at ES failure firms without ES committees (*ES failure – no ES committee at firm*). In model (3), we separate *ES failure* into three mutually exclusive groups based on the ES failure severity experienced during the fiscal year: directors at ES failure firms that experienced high severity (*ES failure – high severity*), directors at ES failure firms that experienced medium severity (*ES failure – medium severity*), and directors at ES failure firms that experienced low severity (*ES failure – low severity*). We classify ES failure severity using RepRisk's measure of severity or harshness and use the firm's maximum severity score (*Max failure severity*) for the fiscal year. The remaining covariates are defined in Table 2 and Appendix A. All regressions include fixed year and industry effects and standard errors clustered by firm. *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

Table 3: Multivariate test of the association between ES failures and ES committee turnover at the ES failure firm

	Lose ES committee		*Lose ES committee*	
	Coefficient	t-statistic	Coefficient	t-statistic
Variable	(1)		(2)	
Intercept	-2.084	-0.85	-2.204	-0.90
ES failure	-0.363	-1.61		
ES failure – high severity			-0.463	-1.39
ES failure – medium severity			-0.393*	-1.65
ES failure – low severity			-0.238	-1.08
New director	-0.574	-0.93	-0.576	-0.93
Female	-0.027	-0.19	-0.028	-0.19
Age>65	-0.424**	-2.47	-0.423**	-2.46
Tenure	-0.018	-1.17	-0.018	-1.17
N Other directorships	0.239***	2.63	0.240***	2.64
% Outside directors	-1.923	-0.81	-1.883	-0.80
Board size	0.116**	2.02	0.115**	2.01
ROA	1.321	0.72	1.309	0.72
Abnormal returns	-0.146	-0.61	-0.171	-0.70
% Institutional ownership	-0.151	-0.45	-0.155	-0.46
Blockholder	-0.182	-0.74	-0.181	-0.73
Size	0.035	0.34	0.047	0.44
ES Score	-0.159	-0.21	-0.117	-0.15
Observations	7,572		7,572	
Pseudo R-squared	0.03		0.03	
Fixed effects	Industry, Year		Industry, Year	
Wald tests			Coefficient	χ^2
ES failure – high severity vs. medium severity			-0.070	0.13
ES failure – high severity vs. low severity			-0.255	0.75
ES failure – medium severity vs. low severity			-0.155	0.76

This table reports the logistic regression results for turnover from the ES committee as a function of ES failures (modified version of Eq. 1) (7,572 director-firm-year observations). We limit the sample to directors who served on ES committees and did not turn over during the turnover window. *Lose ES committee* is an indicator variable that is equal to one if the director loses her or his ES committee appointment, and equal to zero otherwise. *ES failure* is an indicator variable set to one for directors serving on ES failure firms, equal to zero otherwise. We classify firms as having an ES failure if RepRisk identifies at least one environmental, social, or cross-cutting failure during a fiscal year. In model (2), we separate *ES failure* into three mutually exclusive groups based on the ES failure severity experienced during the fiscal year: directors at ES failure firms that experienced high severity (*ES failure – high severity*), directors at ES failure firms that experienced medium severity (*ES failure – medium severity*), and directors at ES failure firms that experienced low severity (*ES failure – low severity*). We classify ES failure severity using RepRisk's measure of severity or harshness and use the firm's maximum severity score (*Max failure severity*) for the fiscal year. The remaining covariates are defined in Table 2 and Appendix A. All regressions include fixed year and industry effects and standard errors clustered by firm. *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

Table 4: Multivariate tests of the association between ES failures and votes withheld at the ES failure firm

	Votes withheld		*Votes withheld*		*Votes withheld*	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Variable	(1)		(2)		(3)	
Intercept	0.122***	6.19	0.123***	6.22	0.121***	5.82
ES failure	0.008***	5.15				
ES failure – director on ES committee			0.007***	2.80		
ES failure – director not on ES committee			0.009***	3.60		
ES failure – no ES committee at firm			0.008***	4.99		
ES failure – high severity					0.018***	5.22
ES failure – medium severity					0.008***	4.57
ES failure – low severity					0.005***	3.61
New director	-0.003**	-2.45	-0.003**	-2.47	-0.003**	-2.47
Female	-0.006***	-7.79	-0.005***	-7.69	-0.006***	-7.88
Age>65	-0.002	-1.36	-0.002	-1.35	-0.002	-1.39
Tenure	0.001***	10.54	0.001***	10.52	0.001***	10.60
N other directorships	0.004***	8.16	0.004***	8.15	0.004***	7.96
% Outside directors	-0.057**	-2.55	-0.057**	-2.56	-0.058***	-2.60
Board size	-0.001*	-1.89	-0.001*	-1.90	-0.001*	-1.78
ROA	-0.065***	-6.14	-0.065***	-6.09	-0.063***	-5.95
Abnormal returns	-0.006***	-2.93	-0.006***	-2.93	-0.006***	-2.65
% Institutional ownership	-0.002	-0.78	-0.002	-0.78	-0.002	-0.64
Blockholder	0.001	0.50	0.001	0.50	0.001	0.45
Size	-0.001	-0.76	-0.001	-0.77	-0.001	-1.38
ES score	-0.020***	-2.86	-0.020***	-2.86	-0.022***	-3.07
Observations	59,357		59,357		59,357	
R-squared	0.10		0.10		0.10	
Fixed effects	Industry, Year		Industry, Year		Industry, Year	
Wald tests			Coefficient	χ^2	Coefficient	χ^2
ES failure – director on ES committee vs not on ES committee			-0.002*	2.90		
ES failure – director on ES committee vs no ES committee at firm			-0.001	0.28		
ES failure – high severity vs. medium severity					0.010***	9.02
ES failure – high severity vs. low severity					0.013***	13.42
ES failure – medium severity vs. low severity					0.003*	2.96

This table reports the ordinary least squares regression results for votes withheld as a function of ES failures (Eq. 2) (59,357 director-firm-year observations). *Votes withheld* is the number of votes withheld from a director scaled by the sum of votes cast. In model (1), *ES failure* is an indicator variable set to one for directors serving on ES failure firms, equal to zero otherwise. We classify firms as having an ES failure if RepRisk identifies at least one environmental, social, or cross-cutting failure during a fiscal year. In model (2), we separate *ES failure* into three mutually exclusive groups: directors at ES failure firms who sit on ES committees (*ES failure – director on ES committee*), directors at ES failure firms who do not sit on ES committees where an ES committee exists (*ES failure – director not on ES committee*), and directors at ES failure firms without ES committees (*ES failure – no ES committee at firm*). In model (3), we separate *ES failure* into three mutually exclusive groups based on the ES failure severity experienced during the fiscal year: directors at ES failure firms that experienced high severity (*ES failure – high severity*), directors at ES failure firms that experienced medium severity (*ES failure – medium severity*), and directors at ES failure firms that experienced low severity (*ES failure– low severity*). We classify ES failure severity using RepRisk's measure of severity or harshness and use the firm's maximum severity score (*Max failure severity*) for the fiscal year. The remaining covariates are defined in Table 2 and Appendix A. All regressions include fixed year and industry effects and standard errors clustered by firm. *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

Table 5: Multivariate test of fund votes withheld by ESG and non-ESG mutual funds conditional on ES failure

	Fund vote withheld	
Variable	Coefficient	t-statistic
Intercept	1.197	1.37
ESG fund	1.274***	25.56
New director	-0.254***	-3.31
Female	-0.232***	-5.20
Age>65	-0.074	-1.23
Tenure	0.028***	7.14
N Other directorships	0.164***	6.78
% Outside directors	-5.568***	-6.04
Board size	0.015	0.70
ROA	-1.745***	-2.66
Abnormal returns	-0.057	-0.41
% Institutional ownership	-0.200	-1.37
Blockholder	-0.076	-0.54
Size	0.109**	2.28
ES Score	-2.223***	-6.17
Observations	17,232,291	
Pseudo R-squared	0.08	
Fixed effects	Industry, Year	

This table reports the logistic regression results for votes withheld by ESG funds and non-ESG mutual funds conditional on the firm having an ES failure (Eq. 3) (17,232,291 fund-director-firm-year observations). *Fund vote withheld* is an indicator variable set to one when the mutual fund withholds its vote in a director election, equal to zero otherwise. *ESG fund* is an indicator variable that is equal to one for ESG mutual funds, and equal to zero otherwise. The remaining covariates are defined in Table 2 and Appendix A. All regressions include fixed year and industry effects and standard errors clustered by firm. *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

Table 6: Multivariate tests of penalties at non-failure firms

Panel A: Multivariate test of turnover of ES failure directors at non-failure firms

	Turnover		*Turnover*	
	Coefficient	t-statistic	Coefficient	t-statistic
Variable	(1)		(2)	
Intercept	-3.644***	-6.75	-3.640***	-6.74
ES failure	-0.031	-0.54		
ES failure – high severity			-0.263	-1.38
ES failure – medium severity			-0.027	-0.39
ES failure – low severity			0.009	0.12
New director	-0.214**	-2.17	-0.213**	-2.17
Female	-0.226***	-3.78	-0.226***	-3.77
Age>65	0.775***	15.06	0.775***	15.06
Tenure	0.037***	10.19	0.037***	10.18
N Other directorships	-0.060**	-2.07	-0.060**	-2.03
% Outside directors	2.194***	4.26	2.187***	4.25
Board size	0.066***	3.71	0.066***	3.71
ROA	-1.394***	-3.70	-1.397***	-3.71
Abnormal returns	-0.006	-0.07	-0.005	-0.07
% Institutional ownership	-0.103	-1.04	-0.104	-1.05
Blockholder	0.002	0.03	0.003	0.04
Size	-0.126***	-3.87	-0.126***	-3.86
ES score	0.057	0.24	0.063	0.26
Observations	26,738		26,738	
Pseudo R-squared	0.07		0.07	
Fixed effects	Industry, Year		Industry, Year	
Wald tests			Coefficient	χ^2
ES failure – high severity vs. medium severity			-0.236	1.52
ES failure – high severity vs. low severity			-0.272	1.92
ES failure – medium severity vs. low severity			-0.036	0.15

Panel B: Multivariate tests of the association between ES failures and committee turnover at non-failure firms

	Change in key committee appointments		*Change in key committee appointments*		*Lose ES committee*		*Lose ES committee*	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Variable	(1)		(2)		(3)		(4)	
Intercept	-0.071	-0.92	-0.072	-0.93	-4.134	-1.61	-4.237*	-1.66
ES failure	0.000	0.02			-0.222	-0.93		
ES failure – high severity			0.021	1.10			0.379	0.68
ES failure – medium severity			-0.003	-0.37			-0.233	-0.82
ES failure – low severity			0.003	0.29			-0.381	-1.15
New director	0.166***	12.52	0.166***	12.51	-0.275	-0.95	-0.282	-0.97
Female	0.026***	3.67	0.026***	3.68	-0.157	-0.89	-0.169	-0.95
Age>65	-0.005	-0.72	-0.005	-0.72	-0.320*	-1.72	-0.314*	-1.69
Tenure	-0.002***	-4.72	-0.002***	-4.73	-0.018	-0.99	-0.020	-1.05
N Other directorships	-0.004	-1.26	-0.004	-1.30	0.159	1.36	0.153	1.32
% Outside directors	0.078	1.07	0.079	1.08	2.871	1.07	3.012	1.13
Board size	0.008***	3.79	0.008***	3.78	0.139*	1.71	0.140*	1.73
ROA	0.033	0.63	0.034	0.64	0.468	0.26	0.554	0.31
Abnormal returns	0.026**	2.52	0.026**	2.51	-0.201	-0.66	-0.214	-0.70
% Institutional ownership	0.014	1.00	0.014	1.00	0.396	0.96	0.394	0.95
Blockholder	0.005	0.50	0.005	0.48	-0.580**	-1.97	-0.602**	-2.05
Size	-0.000	-0.05	-0.000	-0.05	-0.082	-0.44	-0.083	-0.45
ES Score	-0.084***	-2.63	-0.084***	-2.63	-0.981	-0.81	-0.999	-0.82
Observations	22,622		22,622		1,489		1,489	
R-squared / Pseudo R-squared	0.03		0.03		0.06		0.06	
Fixed effects	Industry, Year		Industry, Year		Industry, Year		Industry, Year	
Wald tests								
ES failure – high severity vs. medium severity			0.024	1.53			0.612	1.04
ES failure – high severity vs. low severity			0.018	0.74			0.760	1.50
ES failure – medium severity vs. low severity			-0.006	0.29			0.148	0.16

Panel C: Multivariate test of the association between ES failures and votes withheld at non-failure firms

	Votes withheld		*Votes withheld*	
	Coefficient	t-statistic	Coefficient	t-statistic
Variable	(1)		(2)	
Intercept	0.125***	6.85	0.125***	6.80
ES failure	-0.000	-0.26		
ES failure – high severity			-0.003	-0.89
ES failure – medium severity			-0.000	-0.22
ES failure – low severity			0.000	0.14
New director	-0.007***	-3.63	-0.007***	-3.62
Female	-0.006***	-4.79	-0.006***	-4.79
Age>65	-0.002	-1.12	-0.002	-1.12
Tenure	0.001***	8.25	0.001***	8.26
N Other directorships	0.006***	6.43	0.006***	6.42
% Outside directors	-0.004	-0.21	-0.005	-0.21
Board size	-0.002**	-2.11	-0.002**	-2.11
ROA	-0.054***	-3.22	-0.055***	-3.22
Abnormal returns	-0.004	-1.03	-0.004	-1.03
% Institutional ownership	-0.002	-0.62	-0.002	-0.62
Blockholder	0.005	1.59	0.005	1.59
Size	-0.003**	-2.20	-0.003**	-2.20
ES Score	-0.033***	-3.29	-0.033***	-3.28
Observations	13,040		13,040	
R-squared	0.10		0.10	
Fixed effects	Industry, Year		Industry, Year	
Wald tests				
ES failure – high severity vs. medium severity			0.003	0.59
ES failure – high severity vs. low severity			0.003	0.73
ES failure – medium severity vs. low severity			0.000	0.08

This table reports the results for tests of reputation penalties of ES failure directors at non-failure firms. We limit the sample to non-failure firms that have both directors who serve concurrently on the board of another ES failure firm and directors who do not. *ES failure* is an indicator variable set to one for directors serving concurrently on ES failure firms, equal to zero otherwise. We classify firms as having an ES failure if RepRisk identifies at least one environmental, social, or cross-cutting failure during a fiscal year. We also separate *ES failure* into three mutually exclusive groups based on the ES failure severity experienced during the fiscal year: directors at ES failure firms that experienced high severity (*ES failure – high severity*), directors at ES failure firms that experienced medium severity (*ES failure – medium severity*), and directors at ES failure firms that experienced low severity (*ES failure – low severity*). We classify ES failure severity using RepRisk's measure of severity or harshness and use the firm's maximum severity score (*Max failure severity*) for the fiscal year. Panel A reports the logistic regression results for director turnover at non-failure firms as a function of ES failures (Eq. 1). *Turnover* is an indicator variable equal to one if the director loses her or his board seat. Panel B reports the ordinary least squares (logistic regression) results for the change in key committee appointments (probability of losing an ES committee appointment) as a function of ES failures. In Panel B we also require directors not to turn over from the board over the same window as turnover. *Change in key committee appointments* is the net change in the total number of key committee appointments, and *Lose ES committee* is an indicator variable set to one when directors lose an ES committee appointment, and zero otherwise. Panel C reports the ordinary least squares regression results for votes withheld at non-failure firms as a function of ES failures (Eq. 2). *Votes withheld* is the number of votes withheld from a director scaled by the sum of votes cast. The remaining covariates are defined in Table 2 and Appendix A. All regressions include fixed year and industry effects and standard errors clustered by firm. *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

Table 7: Voluntary vs. forced turnover following ES failures

Panel A: Turnover of ES failure directors from non-failure firms conditional on turnover from ES failure firms

	Turnover	
Variable	Coefficient	t-statistic
Intercept	-3.650***	-6.70
ES failure – no turnover from ES failure firm	-0.178***	-2.84
ES failure – turnover from ES failure firm	0.678***	6.62
New director	-0.220**	-2.23
Female	-0.223***	-3.74
Age>65	0.753***	14.62
Tenure	0.037***	10.06
N Other directorships	-0.069**	-2.33
% Outside directors	2.235***	4.30
Board size	0.065***	3.64
ROA	-1.440***	-3.80
Abnormal returns	-0.013	-0.18
% Institutional ownership	-0.107	-1.07
Blockholder	-0.002	-0.02
Size	-0.125***	-3.83
ES score	0.045	0.19
Observations	26,738	
Pseudo R-squared	0.07	
Fixed effects	Industry, Year	

Panel B: Comparison of characteristics of gained board seats and ES failure firm seats lost

	Characteristics of gained seats				Characteristics of lost seats				Test of differences Gained seat vs. Lost seat: Mean (t-test)		Median (Wilcoxon)	
Variable	Mean	SD	Median	N	Mean	SD	Median	N	Diff.	t-statistic	Diff.	z-statistic
Size	8.496	1.888	8.414	898	9.524	1.618	9.504	737	-1.028***	-11.68	-1.090***	-11.45
Director compensation	4.709	2.671	5.271	835	5.381	1.688	5.565	696	-0.672***	-5.75	-0.294***	-10.48
Board connectedness	0.827	1.207	0.508	898	1.175	1.217	1.009	737	-0.347***	-5.77	-0.501***	-6.88
ES score	0.318	0.180	0.288	479	0.435	0.157	0.458	431	-0.117***	-10.39	-0.170***	-9.73

This table presents tests to investigate whether turnover from the ES failure firm is more likely to be voluntary or involuntary. In Panel A, we report logistic regression results for turnover of ES failure directors from non-failure firms conditional on turnover from the ES failure firm (modified Eq. 1). *Turnover* is an indicator variable equal to one if the director loses her or his board seat. *ES failure – no turnover from ES failure firm* is an indicator variable set to one for directors who serve on an ES failure firm at the time of the failure but do not turn over, equal to zero otherwise. *ES failure –turnover from ES failure firm* is an indicator variable set to one for directors who serve on an ES failure firm at the time of the failure and turn over, equal to zero otherwise. The remaining covariates are defined in Table 2 and Appendix A. The regression includes fixed year and industry effects and standard errors clustered by firm. Panel B reports univariate tests for variables measuring prestige and ES quality, conditional on a director losing a directorship at an ES failure firm. We compare the measures for the original ES failure firm with those for gained board seats by the same director. We examine the following measures: size, director compensation, board connectedness, and ES score. *Size* is the natural logarithm of market value of equity. *Director compensation* is the natural log of (total director compensation, in thousands + 0.001). *Board connectedness* measures the extent to which the director is connected through the board of directors' network at each respective firm. We calculate a composite score using centrality measures from network analysis. *ES score* is the firm's ES score provided by Refinitiv for a firm's environmental and social performance. *, **, *** represent statistical significance at the 10 percent, 5 percent, and 1 percent levels, respectively, based on t-tests of difference in means.

Appendix A: Variable definitions and sources

Variable	Description and source(s)
Variables of interest	
Turnover	An indicator variable equal to one if the director loses her or his board seat, and zero otherwise. We measure turnover between the annual meeting during the ES failure/non-failure year (fiscal year t) and the second annual meeting following the ES failure/non-failure year (fiscal year t+2). Source: BoardEx
Votes withheld	The number of votes withheld from a director scaled by the sum of votes cast. Source: Voting Analytics.
Lose ES committee	An indicator variable equal to one if the director loses her or his position on the ES committee in the same window as *Turnover*, conditional on staying on the board of directors, and zero otherwise. Source: BoardEx
Fund vote withheld	An indicator variable set to one if the mutual fund withholds its vote in the director election, and zero otherwise. Source: Voting Analytics
Change in key committee appointments	The change in the number of audit, nominating, and compensation committee assignments a director holds measured over the same window as director turnover, conditional on staying on the board of directors. Source: BoardEx
ES failure	An indicator variable set to one for directors at firms with ES failures, equal to zero otherwise. We classify firms as having an ES failure if RepRisk identifies at least one environmental, social, or cross-cutting failure during a fiscal year. Sources: BoardEx and RepRisk
ES failure – director on ES committee	An indicator variable set to one for directors at firms with ES failures who serve on ES-related committees, and zero for all other directors. Sources: BoardEx and RepRisk
ES failure – director not on ES committee	An indicator variable set to one for directors at firms with ES failures who do not serve on ES-related committees, and zero for all other directors. Sources: BoardEx and RepRisk
ES failure director – no ES committee at firm	An indicator variable set to one for directors at firms with ES failures and those firms do not have ES-related committees, and zero for all other directors. Sources: BoardEx and RepRisk
Max failure severity	The maximum value of RepRisk's incident severity for ES failures for a firm during the fiscal year where 3=High severity 2=Medium severity and 1=Low severity. We set *Max failure severity* equal to zero when there is no corresponding ES incident. Source: RepRisk
ES failure – high severity	An indicator variable set to one if *Max failure severity* equals 3, and zero otherwise. Source: RepRisk
ES failure – medium severity	An indicator variable set to one if *Max failure severity* equals 2, and zero otherwise. Source: RepRisk
ES failure – low severity	An indicator variable set to one if *Max failure severity* equals 1, and zero otherwise. Source: RepRisk

Variable	Description and source(s)
ES failure – no turnover from ES failure firm	An indicator variable set to one for directors who serve on an ES failure firm at the time of the failure but do not turn over, equal to zero otherwise. Sources: BoardEx and RepRisk
ES failure – turnover from ES failure firm	An indicator variable set to one for directors who serve on an ES failure firm at the time of the failure and turn over, equal to zero otherwise. Sources: BoardEx and RepRisk
Director compensation	The natural log of (total director compensation, in '000s + 0.001). Sources: BoardEx, Execucomp and hand-collection
Board connectedness	Composite measure of connectedness in the annual board of director networks based on degree centrality, eigenvector centrality, betweenness centrality, and harmonic centrality (variant of closeness centrality). We first construct annual networks using firms as the nodes and shared directors as the edges or links. We calculate degree centrality, eigenvector centrality, and betweenness centrality following Omer et al. (2020), and harmonic centrality following Marchiori and Latora (2000). We then compute *Board connectedness* as the first principal component from a principal component analysis of the four centrality measures. Source: BoardEx
Control variables	
New director	An indicator variable that is equal to one if the director is in his or her first year on the board, and zero otherwise. Source: BoardEx
Female director	An indicator variable that is equal to one for female directors, and zero otherwise. Source: BoardEx
Age>65	An indicator variable that is equal to one if the director is older than 65 at the time of the annual meeting, and zero otherwise. Source: BoardEx
Tenure	The number of years the director has been on the board at the time of the annual meeting. Source: BoardEx
Number of other directorships (abbreviated as *N other directorships*)	The number of other boards in the BoardEx universe on which the director serves as an outside director in the year of the annual meeting. Source: BoardEx
% Outside directors	The percentage of outside directors sitting on the board at the time of the annual meeting. Source: BoardEx
Board size	The number of directors sitting on the board at the time of the annual meeting. Source: BoardEx
ROA	Earnings before extraordinary items (Compustat data item *ib*) scaled by average total assets. Source: Compustat
Abnormal returns	One-year cumulative abnormal return (CAR) for 12 months of the fiscal period. Source: CRSP
% Institutional ownership (abbreviated as *% Inst. ownership*)	Percentage of shares owned by institutional investors. Source: Thomson Reuters Institutional (13f) Holdings
Blockholder	An indicator variable that is equal to one if there is at least one institution that owns at least 5% of the firm's equity based on 13-F filings, and zero otherwise. Source: Thomson Reuters

Variable	Description and source(s)
Size	Natural logarithm of market value of equity. Source: Compustat
ES score	Composite score from Refinitiv for environment and social performance. Source: Refinitiv.
Governance failure	An indicator variable set to one if RepRisk identifies at least one G incident during a fiscal year, and zero otherwise. Sources: BoardEx and RepRisk
Any ISS withhold recommendation	An indicator variable that is set to one if at least one director on the firm who is up for election received a withheld recommendation from ISS at the annual meeting, and zero otherwise. Source: Voting Analytics
ISS withhold recommendation	An indicator variable that is equal to one if the director received a withhold recommendation from ISS at the annual meeting, and zero otherwise. Source: Voting Analytics

Appendix B: The role of governance failures

One concern with our analyses is that governance issues may be correlated with ES failures, and differences in the probability of turnover and votes withheld we observe are attributable to governance failures rather than to ES failures. In our main analyses we include variables that capture monitoring by the board (*% Outside directors* and *Board Size*) and by large shareholders (*% Institutional ownership* and *Blockholder*). Firms that have stronger monitoring environments should be less likely to experience governance failures. Because it is difficult, if not impossible, to fully capture firms' monitoring environments, in this Appendix, we evaluate the role of governance failures in our setting. We re-estimate our main tests of penalties at ES failure firms after including variables that capture governance issues as additional controls.

We utilize two proxies for underlying governance issues. The first is ISS withhold recommendations. Prior literature demonstrates that ISS, the most prominent proxy advisor, recommends withholding votes for an array of governance issues, including a lack of independence on key committees, director busyness, CEO pay-performance disconnect and governance arrangements that are not shareholder-friendly (Ertimur et al., 2018) and that these recommendations are economically and statistically significantly associated with voting outcomes. For example, Ertimur et al. (2018) show that, on average, when ISS recommends withholding votes from a director up for election, votes withheld is 20-25% higher. For tests of voting outcomes at director elections, we include an indicator variable set to one if ISS recommends withholding votes or voting against the given director (*ISS withhold recommendation*). For tests of director turnover, because not all directors are up for election in a given year at firms with staggered boards, we instead define a variable that captures ISS withhold recommendations at the firm-year level. ISS withhold recommendations can reflect director-, committee-, or board-level concerns, but we

cannot determine the underlying rationale for ISS's withhold recommendations without access to their reports. Thus, this firm-year level measure is a noisy measure of the effect of ISS withhold recommendations on individual director turnover. We set an indicator variable to one if at least one director who is up for election receives a withhold or against recommendation for a given firm-year (*Any ISS withhold recommendation*).

It is possible that ISS withhold recommendations also reflect ES failures, in which case we would understate the reputation penalties of ES failures when including ISS withhold recommendations as a control variable. Further, to the extent ISS withhold recommendations reflect ES failures rather than governance concerns, including *ISS withhold recommendation* would not effectively control for governance issues. While ISS did not explicitly incorporate ES-related considerations into its proxy voting guidelines for director elections until the 2021 proxy season (Institutional Shareholder Services, 2020), ISS did discuss risk oversight considerations beginning in 2012 (Institutional Shareholder Services, 2012), which may have included oversight of risks related to environmental and social activities. To test whether ES failures affect ISS voting recommendations, we replace the dependent variable in Eq. (2) with *ISS withhold recommendation*. We do not detect a statistically significant association between *ES failure* and *ISS withhold recommendation*. Thus, ISS withhold recommendations appear to capture governance, rather than ES, concerns during our sample period.

Our second proxy for governance failures is an indicator variable set to one if RepRisk identifies a corporate governance incident in year t (*Governance failure*). As RepRisk only identifies two types of governance incidents – "Executive compensation issues" and "Fraud" – this measure likely understates the frequency of corporate governance incidents.

We reperform our main tests of the associations between turnover at the failure firm and ES failures and between votes withheld at the failure firm and ES failures by expanding Eqs. (1) and (2), respectively, to include these controls for governance events. Table A1 presents the results of re-estimating the tests of the association between ES failures and turnover from the failure firm presented in Table 2 including *Any ISS withhold recommendation* and *Governance failure* as additional controls and Table A2 presents the results of performing the tests of the association between ES failures and votes withheld from directors at failure firms presented in Table 4 including *ISS withhold recommendation* and *Governance failure* as additional controls. Including these controls does not change the inferences from our main analyses. Both the coefficients of interest and Wald tests of differences are statistically significant in the same direction as in our main analyses with only one exception; the coefficient on the indicator variable *ES failure – director not on ES committee* is positive and significant in model Table 2, Panel B but not different from zero in Table A1.

Governance failures are positively associated with director turnover and both *Governance failure* and *ISS withhold recommendation* are positively associated with votes withheld from directors. Consistent with *Any ISS withhold recommendation* being a noisy proxy for board-level governance concerns, this variable is not associated with the probability of turnover. The positive associations between measures of governance incidents and reputation penalties suggest that some portion of the penalties we attribute to ES failures arise from governance events that are correlated with ES failures.

Table A1: Tests of the association between ES failures and director turnover from the ES failure firm including controls for corporate governance events

	Turnover		*Turnover*		*Turnover*	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Variable	(1)		(2)		(3)	
Intercept	-4.652***	-10.76	-4.653***	-10.76	-4.693***	-10.88
ES failure	0.111**	2.06				
ES failure – director on ES committee			0.105	1.27		
ES failure – director not on ES committee			0.106	1.30		
ES failure – no ES committee at firm			0.113**	2.17		
ES failure – high severity					0.243***	2.64
ES failure – medium severity					0.120**	1.97
ES failure – low severity					0.088*	1.71
Governance failure	0.091*	1.94	0.091**	1.97	0.078*	1.68
Any ISS withhold recommendation	-0.050	-0.60	-0.050	-0.61	-0.048	-0.59
New director	-0.245***	-2.86	-0.245***	-2.86	-0.245***	-2.87
Female	-0.167	-1.60	-0.167	-1.60	-0.168	-1.61
Age>65	0.846***	13.47	0.846***	13.49	0.845***	13.47
Tenure	0.042***	11.51	0.042***	11.51	0.042***	11.53
N Other directorships	-0.118***	-5.22	-0.118***	-5.21	-0.119***	-5.25
% Outside directors	1.633***	4.14	1.636***	4.16	1.622***	4.11
Board size	0.079***	6.20	0.079***	6.17	0.080***	6.25
ROA	-1.817***	-6.16	-1.818***	-6.16	-1.805***	-6.11
Abnormal returns	-0.188***	-2.75	-0.188***	-2.76	-0.182***	-2.68
% Institutional ownership	-0.116	-1.22	-0.115	-1.23	-0.114	-1.19
Blockholder	0.004	0.06	0.004	0.06	0.003	0.05
Size	-0.080***	-3.28	-0.080***	-3.26	-0.085***	-3.43
ES score	0.504***	2.85	0.506***	2.83	0.483***	2.71
Observations	87,582		87,582		87,582	
Pseudo R-squared	0.07		0.07		0.07	
Fixed effects	Industry, Year		Industry, Year		Industry, Year	
Wald tests			Coefficient	χ^2	Coefficient	χ^2
ES failure – director on ES committee vs not on ES committee			-0.001	0.00		
ES failure – director on ES committee vs no ES committee at firm			-0.008	0.02		
ES failure – high severity vs. medium severity					0.123*	3.48
ES failure – high severity vs. low severity					0.155**	4.12
ES failure – medium severity vs. low severity					0.032	0.58

Table A2: Tests of the association between ES failures and votes withheld at the ES failure firm including controls for corporate governance events

	Votes withheld		*Votes withheld*		*Votes withheld*	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Variable	(1)		(2)		(3)	
Intercept	0.082***	4.68	0.082***	4.69	0.080***	4.27
ES failure	0.005***	4.52				
ES failure – director on ES committee			0.005**	2.55		
ES failure – director not on ES committee			0.006***	3.37		
ES failure – no ES committee at firm			0.005***	4.20		
ES failure – high severity					0.014***	4.64
ES failure – medium severity					0.006***	3.99
ES failure – low severity					0.004***	3.21
Governance failure	0.005***	3.70	0.005***	3.73	0.004***	3.19
ISS withhold recommendation	0.171***	15.77	0.171***	15.78	0.171***	15.79
New director	-0.002*	-1.93	-0.002*	-1.94	-0.002*	-1.94
Female	-0.005***	-6.76	-0.005***	-6.73	-0.005***	-6.84
Age>65	-0.001	-0.69	-0.001	-0.69	-0.001	-0.71
Tenure	0.001***	10.20	0.001***	10.19	0.001***	10.26
N other directorships	0.004***	8.62	0.004***	8.59	0.004***	8.49
% Outside directors	-0.025*	-1.71	-0.026*	-1.72	-0.027*	-1.78
Board size	-0.001*	-1.86	-0.001*	-1.86	-0.001*	-1.74
ROA	-0.048***	-4.96	-0.048***	-4.91	-0.047***	-4.88
Abnormal returns	-0.007***	-3.63	-0.007***	-3.63	-0.006***	-3.43
% Institutional ownership	-0.001	-0.46	-0.001	-0.47	-0.001	-0.36
Blockholder	0.002	0.96	0.002	0.97	0.002	0.92
Size	-0.001	-1.32	-0.001	-1.33	-0.001*	-1.83
ES score	-0.009	-1.64	-0.009*	-1.65	-0.010*	-1.83
Observations	59,357		59,357		59,357	
R-squared	0.30		0.30		0.30	
Fixed effects	Industry, Year		Industry, Year		Industry, Year	
Wald tests			Coefficient	χ^2	Coefficient	χ^2
ES failure – director on ES committee vs not on ES committee			-0.001	0.61		
ES failure – director on ES committee vs no ES committee at firm			0.000	0.02		
ES failure – high severity vs. medium severity					0.008***	9.24
ES failure – high severity vs. low severity					0.010***	10.15
ES failure – medium severity vs. low severity					0.002	0.71

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