Do board monitoring and audit committee quality help risky firms reduce CSR controversies?

Abstract

This study focuses on potential inhibiting and driving factors of corporate social responsibility (CSR) controversies including board monitoring intensity and audit committee quality with a particular focus on risky firms. We draw on agency, resource dependence, and slack financial resources theories to explain this association. Using an international sample between 2002-2019 and executing fixed-effects regression and Hayes's moderation analysis methodology, we find that risky firms tend to commit more CSR controversies. Furthermore, CSR performance, firm complexity, and indebtedness exacerbate CSR controversies, whereas larger boards mitigate them. Moreover, while board monitoring intensity and audit committee quality do not prevent committing CSR controversies in absolute terms, they alleviate risky firms' CSR controversies tendency. The findings confirm agency theory and the monitoring function of the board in mitigating CSR controversies. In line with the resource dependence theory, audit committees' independent members and members with different skills and expertise provide critical resources that help prevent CSR controversies.

Keywords: Board monitoring; audit committee quality; firm risk; CSR; CSR controversies.

1. Introduction

Corporate social responsibility (CSR) can be considered an essential strategic tool that has value-enhancing benefits which help improve the value of the firm (Malik, 2015). These benefits include financial market benefits by lowering the firm's cost of capital and cost of debt and improving stock market returns (Dhaliwal et al., 2011; Wang et al., 2011; Ye and Zhang, 2011; Flammer, 2013), and product market benefits by improving brand reputation and customer satisfaction which leads to increased sales and achieving the competitive advantage (Brown and Dacin, 1997; Singh et al., 2008; Lev et al., 2010; Green and Peloza, 2011). Despite these significant profit-related benefits in socially responsible behavior, it remains an open question of whether CSR is of value relevance to shareholders. Indeed, existing research evidence remains inconclusive regarding shareholders' gain or loss from CSR activities (see the recent literature reviews by Huang et al. (2020). Managers will be concerned about whether engaging in CSR activities (or avoiding negative outcomes) is of value to shareholders, and they need to decide the level of CSR activities that leave shareholders best off. The challenge remains how best to deploy resources and effort to engage in CSR to maximize the benefits to shareholders and stakeholders.

The literature on the dark side of CSR is still in the early stages (Godfrey et al., 2024). Corporate social controversies arise when businesses tend to do more harm and fail to meet society's expectations (Herzig and Moon, 2013; Anagnostopoulou et al., 2021). This failure is likely to occur when business activities do not meet ethical standards and hurt stakeholders' social welfare (Küberling-Jost, 2021). Many companies have been trying to avoid committing controversial social and environmental acts due to their damaging implications on corporate reputation, brand image, and public trust. For example, the Volkswagen (VW) and British Petroleum (BP) cases

represent an utter failure of CSR.[1] Hence, it becomes important to understand the potential hindering and driving factors of CSR controversies.[2] In this study, we focus on managerial engagements in controversial social and environmental activities that are damaging firms' reputations and negatively impacting shareholders' wealth rather than on managerial engagements at the minimum level of CSR to align with shareholders' interests. The latter is less likely to be a result of a failure in the corporate governance system.

Previous literature has largely focused on good corporate behavior (i.e., the positive side of CSR) and examined various determinants and consequences of this behavior. Only recently, academic literature has made attention to corporate bad behavior and documented the consequences and risk implications of corporate social irresponsibility (e.g., Kölbel et al., 2017; Lenz et al., 2017; Price and Sun, 2017; Godfrey et al., 2024; Jain and Zaman, 2020; Dharwadkar et al., 2021). Anagnostopoulou et al. (2021) argue that CSR and CSR controversies are two separate constructs grounded on different conceptualizations. As a result, it is important to draw attention to socially irresponsible behavior to alarm stakeholders (including shareholders) and prevent future CSR controversies. Extant research has also focused on the impact of corporate governance mechanisms, including board and audit committee (AC) attributes, on corporate social responsibility (e.g., Jo and Harjoto, 2012; Ben-Amar and McIlkenny, 2015; Harjoto et al., 2015; Hong et al., 2016; Jain and Jamali; 2016; Al-Shaer and Zaman, 2018). However, we still know little about the impact of board monitoring and ACs on CSR controversies. Although two prior

[1] The BP oil spill in 2010 was the biggest manufactured ecological disaster in US history and represented a failure of corporate governance and CSR policies. The company pleaded guilty and agreed to pay more than $18.7 billion in fines and penalties (Cherry and Sneirson, 2010; Robertson et al., 2015). Moreover, the VW emissions scandal was one of the costliest scandals. The legal penalties and fines for VW have amounted to approximately USD30 billion (Schwartz and Bryan, 2017) causing damages to the company's shareholders, reputation, employees, and dealers.
[2] We use CSR controversies and corporate social irresponsibility interchangeably throughout the text.

studies (Godfrey et al., 2024; Jain and Zaman, 2020) investigated the association between board characteristics and CSR controversies, they focused on whether board gender diversity and governance bundle (i.e., board size, board independence, CSR committee, board gender diversity, board meeting attendance) diminish CSR controversies in the US. Hence, we extend those prior studies by using AC quality (i.e., independence and expertise) and a broader board monitoring proxy (i.e., board meeting attendance rate, audit committee quality, and board committee index drawing on audit, nomination, compensation, and corporate governance committees)[3]. Our international sample will also provide a global perspective of whether AC quality and board monitoring reduce CSR controversies with more generalizable results and implications. Moreover, the literature on risky firms and their likelihood to be involved in CSR controversies is still in the early stages, and the question of whether board monitoring strength and effective ACs mitigate risky firms' involvement in CSR controversies is unexplored and allows for significant contribution to the literature.

Our study focuses on inhibiting and driving factors of CSR controversies and contributes to the literature in a few ways. *First*, while it is generally recognized that corporate governance mechanisms can affect good corporate behavior, drawing attention to bad behavior is necessary to avert future corporate social irresponsibility and alert stakeholders. In particular, there is a paucity of research on board monitoring and AC quality, and corporate social controversies with a particular focus on risky firms. For example, Jain and Zaman, (2020) examine how board composition including board independence, board gender diversity, and board CSR committee influence corporate social irresponsible activities, Godfrey et al. (2024) specifically examine the

[3] Please see the "Variables" section and Table A1 for more detailed definitions of AC quality and board monitoring proxies.

impact of board gender diversity on corporate social irresponsibility, and Dharwadkar et al. (2021) focus on a specific attribute of the board (the legal background) and its association with corporate social irresponsible incidents. These studies focus on specific attributes of the board of directors and did not explore the effect of AC quality and board monitoring strength on CSR controversies; besides, they do not focus exclusively on risky firms.

Second, the existing literature on CSR controversies is still in its infancy in examining the context-specific effect of the monitoring ability of the firm in preventing controversial social incidents (Godfrey et al., 2024; Jain and Zaman, 2020; Dharwadkar et al., 2021). Hence, our study fills the gap in the literature by examining the moderation effect of AC quality and board monitoring intensity on risky firms' social irresponsibility based on the most recent and one of the largest samples of firms and data used in CSR controversies' literature. We cover an international sample of 45,840 firm-year observations across nine sectors and 61 countries for the years between 2002 and 2019 which reinforces the generalizability of the findings. We draw on agency, resource dependence, and slack financial resources theories to explain this association.

Third, from a methodological perspective, assuming that the monitoring function is enabled by the combination of several factors rather than a single or a few board characteristics (Ararat et al., 2015), our board monitoring intensity and AC quality proxies are based on a comprehensive set of indicators, unlike prior studies which mostly use single dimensions of the board or AC structure. We measure board monitoring intensity by taking the average of three variables (adapted and modified from Ararat et al. (2015)), board meeting attendance rate, audit committee quality, and board committee index.[4] AC quality is calculated by taking the average of AC independence and

[4] The index includes audit, nomination, compensation, and corporate governance committees.

expertise (Be´dard et al., 2004; Lee and Fargher, 2018). *Fourth,* focusing on risky firms' corporate irresponsibility and how it could be mitigated may help firms better manage the negative situation and also help regulators be extra vigilant about these firms' association with social irresponsibility.

Using a sample of firm-year observations between 2002-2019 included in the Thomson Reuters Eikon database and performing fixed-effects regression analysis and Hayes's moderation analysis methodology, results show that board monitoring and AC quality do not prevent committing CSR controversies contrary to our expectations. However, risky firms tend to commit more CSR controversies. Furthermore, AC quality and board monitoring intensity alleviate risky firms' CSR controversies tendency. Our results suggest that financial difficulties push firms to commit to more controversial CSR practices which could be driven by the lack of sufficient resources to perform in a socially responsible way. Moreover, the strength of ACs and board monitoring has a context-specific effect in preventing CSR controversies; while they do not generate a direct effect on diminishing controversies in absolute terms, they have a moderating effect on risky firms' corporate irresponsibility. Our findings support agency theory and the monitoring function of the board and its committees indicating that they are more likely to provide fundamental control over the firm's actions (Jensen and Mackling, 1976; Hill and Jones, 1992) and reduce CSR controversies. Findings also support the resource dependence theory (RDT) (Hillman and Dalziel, 2003) which suggests that effective ACs comprised of independent directors with different skills and expertise help firms obtain critical resources and prevent CSR controversies. Also, in line with the slack financial resources theory (Waddock and Graves, 1997), risky firms might be more inclined to engage in CSR controversies under the pressure of financial constraints.

The remainder of the paper is structured as follows. The next section provides the theoretical framework and outlines the research hypotheses. Section 3 sets out the research methodology in

terms of sample, data, and model. In section 4 we report the empirical results, and in section 5, we draw conclusions, discuss the results, and suggest implications and future research opportunities.

2. Theoretical Framework and Hypotheses

2.1. Board monitoring intensity and CSR controversies

Agency theory states that corporate behavior results from organizational or managerial decision-making (Walker et al., 2019). The agency theory supports the monitoring role of the board of directors and its committees suggesting that they are more likely to provide effective monitoring and oversight role over the firm's activities (Jensen and Mackling, 1976; Hill and Jones, 1992). On the other hand, the RDT suggests that the board and its committees are composed of directors with different knowledge, skills, and expertise which help bring rich resources to the firm (Hillman and Dalziel, 2003; Ben-Amar and McIlkenny, 2015; Shaukat et al., 2016; Helfaya and Moussa, 2017, Al-Shaer and Zaman, 2018). According to RDT, the composition of the board and its committees can act as essential resources to create value by enhancing firms' reputation and engagement with various stakeholders and easing access to resources (Jizi, 2017; Al-Shaer and Zaman, 2018).

Companies engaging in CSR controversies can face stakeholder backlash and legitimacy threats which require an increased demand for monitoring mechanisms (Price and Sun, 2017; Jain and Zaman, 2020; Dharwadkar et al., 2021). Managers may not pursue the best interests of their companies and shareholders and may be driven by their own self-interest (Jain and Zaman, 2020). Such behavior could go against stakeholders' interests which creates agency problems (Jensen and Mackling, 1976; Fama and Jensen, 1983). The board of directors is also accountable for irresponsible corporate behaviors (Neville et al., 2019) which may impact the resource allocation decision and stakeholders' engagement. Therefore, to reduce agency problems and the conflict of

interest between managers and various stakeholders, there is a need to increase the board monitoring function which is likely to reduce corporate social irresponsibility.

It is also important to establish effective board committees that bring rich resources to the firm which are likely to reduce CSR controversies. This is because board committees focus on specific tasks and perform with greater competence and pragmatism, strengthening the board monitoring function (Kolev et al., 2019). Prior research has examined the impact of board committees' independence on firm value drawing on agency theory and suggesting that independence increases committees' monitoring skills. For example, Nguyen and Nielsen (2010) and Aggarwal et al. (2011) show that AC independence has a positive effect on market return, and Grove et al. (2011) and Hoechle et al. (2012) show that nomination and compensation committees' independence enhances firm performance. Moreover, existing research suggests that greater expertise of committee members and frequent committee meetings are appropriate governance mechanisms that help reduce management misbehavior and improve accounting practices (e.g., Abbott et al., 2004; Krishnan et al., 2011; Cohen et al., 2014).

Frequent board meetings will generally result in greater CSR engagement (Al-Shaer and Zaman, 2018). During their meetings, the board of directors can set up the CSR agenda and allocate the necessary resources for different CSR activities (Jizi, 2017), and ensure engagement with different stakeholders (Rowe et al., 2014; Ben-Amar and McIlkenny, 2015). Prior literature suggests that poor attendance at board meetings can be seen as a sign of ineffective monitoring (Cai et al., 2010; Jain and Zaman, 2020) which can lead to more involvement in CSR controversies. Low attendance at board meetings means that directors who are missing the meetings will not be engaged in direct discussion and interaction with other board members and managers about various CSR issues (Xie et al., 2003, Cai et al., 2010; Jain and Zaman, 2020). Those directors will have a limited view of

the firm's activities which can motivate managerial opportunism (Min and Chizema, 2018; Jain and Zaman, 2020), inversely impact the board monitoring function, and increase the likelihood of committing CSR controversies. Given the foregoing discussion, we propose the first hypothesis as follows:

H1: Board monitoring intensity is negatively associated with CSR controversies.

2.2. Audit Committee quality and CSR controversies

Agency theory suggests that to achieve close monitoring of management, companies need an effective AC (Collier and Zaman, 2005; Turley and Zaman, 2007; Al-Shaer et al., 2021). ACs provide substantive oversight and disclosure related to governance (Piot and Janin, 2007; Beasley et al., 2009) which tend to reduce information asymmetry and agency costs and increase the transparency of their monitoring (Al-Shaer et al., 2021). AC oversight role is not limited to financial reporting (Yu et al., 2016). It can ensure that various corporate strategies are getting sufficient agenda time and attention by the firm (Yu et al., 2016) which leads to enhancing firms' ethical compliance and reducing socially irresponsible practices. ACs review risks associated with CSR and monitor performance through internal control and self-assessment processes (Al-Shaer et al., 2018). As a result, the AC risk management duty can be improved by having high-quality ACs on the board. An effective AC is likely to be more successful in allocating resources toward CSR engagement (Al-Shaer and Zaman, 2018). ACs comprising independent directors with financial expertise can attract human and relational capital, which leads to better social responsibility (Helfaya and Moussa, 2017; Al-Shaer and Zaman, 2018). Since corporate social irresponsibility leads to high financial implications, an effective AC is essential in determining a firm’s CSR strategies and reducing the risks of irresponsible behavior.

Prior literature shows that the financial expertise of AC members makes ACs' monitoring role more effective (Abbott et al., 2004; Aier et al., 2005). ACs with financial experts have the required skills to ensure compliance with CSR policies and reduce involvement in controversial CSR activities (Yu et al., 2016). Moreover, AC independence improves monitoring quality because independent directors are not involved in the daily management of their companies (Kabir and Thai, 2017), which leads to more objective and better oversight of firms' activities. Besides, independent directors are more concerned about their reputation which makes them effective monitors (Kabir and Thai, 2017). They can pay attention to long-term strategies and address the needs of all stakeholders (Michelon and Parbonetti, 2012; Liu et al., 2015). As a result, they are likely to be more sensitive and responsive to CSR controversies. Given the foregoing discussion, we propose the second hypothesis as follows:

H2: AC quality is negatively associated with CSR controversies.

2.3. Risky firms and CSR controversies

This study focuses on the dark side of CSR and investigates the likelihood that financially distressed firms engage in CSR controversies. CSR controversies can be associated with environmental scandals or social misconduct that capture investors' attention and media coverage (Aouadi and Marsat, 2018). Studies that focus on the positive side of CSR show that CSR has a negative impact on financial distress risk as it improves the financing conditions of companies (e.g., Jo and Na, 2012; Mishra and Modi, 2013; Boubaker et al., 2020; Monti et al., 2022). A few recent studies suggest that irresponsible social behavior is related to corporate risk (Kölbel et al., 2017; Godfrey et al., 2024). We expand the latter strand of research by focusing on distressed firms' tendency to commit controversial CSR acts.

According to slack financial resources theory (Waddock and Graves, 1997), a firm with low risk faces fewer financial uncertainties which may enhance environmental and social engagements and managerial discretion to improve CSR efforts. Engagement in CSR requires the facilitation of resources to provide products and services. Thus, CSR efforts are likely to be susceptible to the availability of slack resources which can affect managers' discretion to engage in CSR activities (Shahzad et al., 2016; Moneva et al., 2020; Dharwadkar et al., 2021). On the contrary, financially distressed firms allocate resources to short-term projects and dedicate less funds to CSR-related issues because they lack the necessary resources to invest in CSR (Orlitzky et al., 2003). Financially distressed firms can be more fragile and susceptible to CSR controversies. Research evidence shows that financially distressed firms tend to engage in earnings management practices (Campa, 2015; Li et al., 2020), and disclose misleading inaccurate non-financial information (Uyar et al., 2022). A firm's CSR engagement can provide a cover against financial uncertainties (Godfrey et al., 2009; Minor and Morgan 2011; Shahab et al., 2019). However, since engagement in CSR requires managerial discretion to initiate resources or cease them (Kang et al., 2016) according to the slack financial resources theory (Waddock and Graves, 1997), a risky firm might be more inclined to engage in CSR controversies under the pressure of financial constraints. Companies may pursue engaging in reputation management by replicating their peer's behavior (Godfrey et al., 2024) to be seen as socially responsible companies. As a result, such behavior, if persists without effective monitoring, is likely to increase a firm's involvement in CSR controversies. Given the foregoing discussion, we propose the third hypothesis as follows:

H3: Risky firms are more likely to commit CSR controversies.

2.4. The moderation role of board monitoring and audit committee quality in risky firms

Financial difficulties may push firms to commit more controversial CSR incidents which could be driven by saving more costs out of CSR activities and by a lack of slack financial resources to behave in a socially responsible way. Increasing board monitoring function and the effectiveness of ACs are likely to reduce corporate social irresponsibility incidents for risky firms. CSR engagement may increase companies' costs, putting companies at a competitive disadvantage and financial difficulties (McWilliams and Siegel, 1997; Islam et al., 2021). Prior literature argues that CSR represents an agency problem as managers may be inclined to use CSR practices as mechanisms to enhance their own interests (Masulis and Reza, 2015; Islam et al., 2021). Board monitoring intensity and high-quality ACs perform more critical duty in risky firms and may help to reduce agency costs and monitor management activities profoundly. Such effective corporate governance mechanisms can help promote strategic initiatives including CSR initiatives (Minichilli et al., 2009; Poletti-Hughes and Martinez Garcia, 2022), and involve the relevant board and committees' wealth in guiding management efficiently (Valenti and Horner, 2019; Poletti-Hughes and Martinez Garcia, 2022). As a result, effective corporate governance mechanisms including board monitoring functions and the existence of effective ACs are likely to moderate risky firms' engagement in CSR controversies as they impact both monitoring and the provision of resources which are likely to mitigate corporate irresponsible incidents. Given the foregoing discussion, we propose the fourth hypothesis as follows:

H4: Risky firms with stronger board monitoring and high-quality ACs are less likely to commit CSR controversies.

3. Research Methodology

Multiple data analysis approaches are performed. Detailed information about the analysis tools with the relevant justifications is provided in this section. The empirical methodology includes data preprocessing steps, univariate approaches such as sample distribution based on frequency analysis as well as descriptive statistics, and multivariate analysis approaches such as correlation analysis and panel regression analysis. The proposed research models are examined using firm-year FE (Fixed-Effects) regression analysis and moderation analysis. Finally, the robustness section incorporates various analysis approaches.

3.1. Variables

CSR controversies were measured by two variables; one by composite ESG (i.e., environmental, social, and governance) controversies score (ESGconts), and the other is governance controversies (GOVconts) (Dorfleitner et al., 2020; Refinitiv, 2021; Agnese et al., 2023a). While the former is used in the baseline analysis, the latter is adopted in the robustness tests. ESGconts (based on 23 metrics) assesses a firm's exposure to environmental, social, and governance controversies and negative events appearing in global media. Normally, the default value of the controversy measure is 0, while companies with no controversies will get a score of 100 in the data source (Thomson Reuters Eikon). However, we reversed the scale by multiplying with -1 to indicate higher score shows higher CSR controversies. Thus, our aggregate CSR controversies score ranges from -100 to 0. Scores closer to -100 indicate fewer governance controversies and scores closer to 0 indicate greater controversies. The calculation of GOVconts variable is based on the average of five governance controversies indicators such as insider dealings controversies, accounting controversies, executive compensation controversies, anti-competition controversies, and bribery corruption and fraud controversies. All these five metrics' scores range from 0 to 100; the default value of each controversy measure is 0, while companies with no controversies will get a score of

100 in the data source (Thomson Reuters Eikon). To get a composite governance controversies score, we summed up these five metrics and then scaled the sum by five. However, we reversed the scale by multiplying with -1 to indicate higher score shows higher governance controversies. Thus, our aggregate governance controversies score ranges from -100 to 0. Scores closer to -100 indicate fewer governance controversies and scores closer to 0 indicate greater controversies.

We have measured the monitoring ability of the firms by two indicators: audit committee quality (AudcomQ) and board monitoring intensity (BoardMon). While AudcomQ is calculated by taking the average of audit committee independence and expertise (Be´dard et al., 2004; Lee and Fargher, 2018), BoardMon is calculated by taking the average of three variables (adapted and modified from Ararat et al. (2015)): board meeting attendance rate, audit committee quality, and board committee index. The board committee index is established by the following formula: [(audit committee + nomination committee + compensation committee + corporate governance committee) / 4] * 100. While Ararat et al. (2015) use board meeting frequency in the calculation of the board monitoring index, we use board meeting attendance rate assuming that rather than the number of meetings held, directors' participation in the meetings is influential in decision-making[5]. Also, instead of using auditor quality, we use audit committee quality based on the audit committee independence score and audit committee expertise score (Uyar et al., 2023) proposing that the auditor is an external monitor, but the audit committee is an internal monitor and an important part of board monitoring. Lastly, as Ararat et al. (2015) did, we incorporate the board committee index. Our modified board monitoring index was recently used by Gerged et al. (2023).

[5] Supporting our argument, Vafeas (1999) found that board meeting frequency has a negative effect on firm value, whereas Chou et al. (2013) found that board meeting attendance has a positive effect on firm performance.

Firm risk is proxied by the rolling standard deviation of return on assets (StdROA) over three years (Hoang et al., 2021) and Zmijewski Financial Score (ZFS) (Zmijewski, 1984; Miglani et al., 2015; Charalambakis and Garrett, 2019; Habib et al., 2020; Bravo-Urquiza and Moreno-Ureba, 2021) which is calculated by the equation:

$$ZFS\ (Zmijewski, 1984) =$$

$$= -4.336 - 4.513\ \frac{Net\ income\ after\ tax}{Total\ assets} + 5.679\ \frac{Total\ debt}{Total\ assets}$$

$$- 0.004\ \frac{Total\ current\ assets}{Total\ current\ liabilities} \qquad (1)$$

Furthermore, we identified several control variables that could affect the extent of committing CSR controversies in firms such as the extent of CSR commitment (ESGscore), board size (Bsize), firm size (Fsize), current ratio (CurrentR), Leverage, Capexpend, RDexpend, free float percentage (FFP), and Worldwide Governance Indicators (WGI) (Tang et al., 2015; Haque, 2017; Jain and Zaman, 2020; Boubakri et al., 2021; Kılıç et al., 2021; Uyar et al., 2021; Albitar et al., 2022; Hamed et al., 2022). The reason why ESGscore is incorporated as a control variable is based on the moral licensing hypothesis which argues that top leaders accrue moral credits by implementing a CSR strategy that allows them to be less vigilant toward engaging in unethical behavior (Ormiston and Wong, 2013)[6]. Larger firms are more complex, and hence, they are likely to commit more CSR controversies. Poor liquidity and high leverage might impose financial constraints on firms and may push them to engage with more controversies. Research and development expenditure is considered risky, and risk might trigger greater CSR controversies. Firms with more capital expenditures are exposed to greater public scrutiny which might cause them to avoid

[6] Indeed, this positive relationship between CSR performance and CSR controversies was proven by Ormiston and Wong (2013).

controversial CSR acts. Firms with larger boards host greater social board capital which might prevent them to commit CSR controversies. The free float percentage of shares denotes concentrated or dispersed ownership structure, and hence shareholder power in firms may play a role in the extent of CSR controversies. Finally, regulatory quality or weakness measured by WGI might predict controversial corporate acts.

All firm-level data were retrieved from the Thomson Reuters Eikon database. The WGI data were fetched from the World Bank (2020). Further detailed information regarding the list of the variables along with descriptions is provided in Table A1.

3.2. Sample

The sample of the study covers all firm-year observations belonging to non-financial firms included in the Thomson Reuters Eikon database for the years between 2002 and 2019. We excluded financial firms from the sample due to their divergence from non-financial firms' characteristics. The initial year for which ESG data was available is 2002 in the database which is why the study period starts with that year. The data screening process as well as the characteristics of the research sample are examined in this section. It is very crucial to investigate the raw data and pass it through the data screening processes (Hair et al., 2019). Multiple steps are performed including cleaning and preparing the data for the analysis, winsorization, outlier detection, missing value analysis, and data imputation. The raw data is retrieved from the database which was not ready for analysis. The variables of the research are organized where the variable labels on the first row and the records follow the variable names in a spreadsheet layout. Any string values were determined and converted to numerical values. Possible typos or strings within numerical values are cleaned from the data set. The data was prepared for the forthcoming analyses. Second, some

of the research variables had extreme values on the tails based on the initial descriptive statistics. Therefore, StdROA, ZFS, Bsize, CurrentR, Leverage, Capexpend, and RDexpend are subject to the winsorization step. At one percent of the two tails are replaced by the extreme values with their winsorized counterpart values. Third, the significant outlier detection phase is performed. For this analysis, minimum covariance determinant-MCD methodology (Verardi and Dehon, 2010) is performed. This approach can robustify the Mahalanobis distance (Verardi and Dehon, 2010). A final sample size of 45,840 firm-year observations is left for further analysis after removing the significant outliers.

Fourth, the missing values are investigated. The descriptive statistics of the missing value analysis indicated that the ratio of the missing values of some of the variables is relatively small[7]. The ratios of the missing values of the indicated variables are significantly less than 5% which can be inconsequential (Schafer, 1999).

Finally, the imputation phase is employed for the missing variables. The indicated variables with the missing values were subject to the imputation step. They were imputed using the Markov chain Monte Carlo method based on linear regression as the model type for scale variables.

BoardMon and StdROA have a high ratio of missing values. Therefore, these two variables were not subject to the imputation step. Furthermore, the authors did not want to minimize the overall sample for only these two variables. Hence, the models including BoardMon and StdROA variables were run on a smaller sample while the other models were run on the full sample.

[7] The preliminary summary statistics for the missing values show that ESGconts had 0.03%, AudcomQ has 2.30%, ZFS has 1.28%, Bsize has 0.40%, Fsize has 0.18%, CurrentR has 1.26%, Leverage has 0.18%, and FFP has 0.94% missing observations.

The final sample is subject to frequency analysis based on Year and Sector. The sample distribution of the final sample is presented in Table 1[8]. Moreover, the country-level sampling distribution indicates that there are 61 countries with 5,898 unique firms and 45,840 data points (Table A2 shows the detailed sample distribution in the Appendix section).

[Insert Table 1 here]

3.3. Research models

The research models are examined using various analysis approaches. This section includes empirical analysis approaches with relevant justifications. We adopted a firm and year fixed-effects (FE) regression analysis approach to mitigate the risk of potential omitted variable bias. Employing firm-year FE allows for the control of unobservable characteristics that may persist over time (Jiraporn et al., 2016). Moreover, the firm and year FE approach is employed to address unobserved heterogeneity between firms (Wooldridge, 2010). In constructing the research model, we employ regression analysis with firm and year FE utilizing the Least Squares Dummy Variable Model approach (Gujarati, 2014). The functional relationship between the dependent variable and the independent variables is expressed in equation (2) below.

$$Y_{it} = \beta_0 + \beta_1(X)_{it} + \beta_2(Controls)_{it} + Firm\ FE + Year\ FE + \varepsilon_{it} \quad (2)$$

The dependent variable is ESGconts denoted as the "Y_{it}" term in the equation. Moreover, the independent testing variables are AudcomQ, BoardMon, and ZFS which are denoted by the "X_{it}"

[8] Based on the frequency analysis results, 13.1% of the observations are from basic materials, 18.94% are from consumer cyclical, 8.93% are from consumer non-cyclical, 8.76% are from energy, 9.13% are from healthcare, 21.01% are from industrial, 11.32% are from technology, 3.39% are from telecommunication service, and 5.43% are from utility sectors. Moreover, the observations range between 0.71% in 2002 and 12.87% in 2019 based on the years

term. The control variables are ESGscore, Bsize, Fsize, CurrentR, Leverage, FFP, Capexpend, RDexpend, and WGI.

The index "i" denotes the firms as the panel variable. Also, the index "t" denotes the year as the time variable. The "ε_{it}" term is the regular error term.

Moreover, the heteroscedasticity-consistent standard errors using the Huber Sandwich Estimator (Huber, 1967) which are also called robust standard errors are reported in the regression analysis. The robust standard errors are used to control the risk of possible heteroscedasticity issues (Wooldridge, 2020).

The application of the fixed-effect (FE) analysis provides various advantages: (i) reducing the possible risk of multicollinearity and estimation bias (Baltagi, 2005) (ii) controlling the omitted variable bias by evaluating the changes within the panels (firms) across time (years) (Wooldridge, 2010).

3.4. Multicollinearity analysis

The variance inflation factors (VIF) are used to investigate if there is any high correlation (i.e., multicollinearity) among the independent variables of the research models. The VIF values range between 1.03 and 2.67 which are significantly less than the suggested cut-off value of 10 (Hair et al., 2019). Accordingly, multicollinearity threat does not exist among the independent variables.

3.5. Moderation roles of AudcomQ and BoardMon

The baseline analysis incorporated moderation analysis to examine the proposed hypotheses with moderating effects. The moderating role of AudcomQ and BoardMon on the relationship between

ZFS and ESGconts is investigated in this section. Hayes's (2017) moderation analysis methodology using a Stata module developed by Jose (2013) is used to test the hypotheses related to moderation analysis. The functional relationship between the dependent variable and the independent variables together with the interaction variables is formulated in equation (3) below.

$$y_i = \alpha + \beta_1 x_i + \beta_2 M_i + \beta_3 (x_i * M_i) + Controls + \epsilon_i \qquad i = 1,\ldots,N \quad (3)$$

The dependent variable is ESGconts represented by the "y_i" term. The testing variable of interest is ZFS denoted by the "x_i" term in the formulated equation. Moreover, the moderating variables are AudcomQ and BoardMon denoted by "M_i"; the control variables ESGscore, Bsize, Fsize, CurrentR, Leverage, FFP, Capexpend, RDexpend, and WGI.

4. Findings and results

4.1. Descriptive statistics

The summary of the descriptive statistics of the research variables is presented in Table 2. According to the obtained results, the mean value of ESGconts is (-91.22±22.23), GOVconts is (-53.93±6.09), AudcomQ is (68.69±22.99), BoardMon is (82.08±10.98), StdROA is (0.02±0.03), and ZFS is (-3.11±1.20). The ESGconts variable is highly skewed due to the nature of the data. Most of the observations were scored -100 implying that no CSR controversies were reported for the firm while the minority of the observations are scored closer to zero with reported controversies. Prior studies also suffer from the same skewness issue of CSR controversies proxy such as Treepongkaruna et al. (2022), Agnese et al. (2023b), and Issa (2023). Having said that we addressed this skewness issue in the robustness tests by two additional analyses: (1) forming matched samples based on Propensity Score Matching and re-running the model, and (2) running

the model with the natural logarithm of ESGconts. Furthermore, the average ESGscore is 40.90, and the board size is 10.01. While the mean current ratio is 2.02, leverage and free float percentage are 56% and 77% respectively.

[Insert Table 2 here]

4.2. Correlation coefficients

The bivariate correlation coefficients between each pair are reported in Table 3. Pearson's correlation analysis is used to obtain the results. The results reveal that GOVconts, AudcomQ, BoardMon, and ZFS have a significant and positive linear correlation with ESGconts ($p<0.05$) while StdROA does not have a significant linear correlation with ESGconts.

[Insert Table 3 here]

4.3. Baseline analysis results

The proposed research models are examined. We perform firm and year FE regression analysis. The results are provided in Table 4 (Columns #1, 2, and 3). The results reveal that ZFS ($p<0.01$) has a significant and positive relationship with ESGconts while AudcomQ and BoardMon do not have a significant association with ESGconts. Thus, the first and second hypotheses (i.e., H1 and H2) are rejected while the third hypothesis is accepted (i.e., H3). Furthermore, firms with more CSR investment, larger, and highly leveraged are more likely to commit more CSR controversies. However, firms having larger board sizes are less likely to commit CSR controversies.

[Insert Table 4 here]

4.4. Moderation analysis results

The moderating role of AudcomQ and BoardMon on the relationship between ZFS and ESGconts is investigated (Table 5; Columns # 1 and 2). The coefficients of the interaction variables are negative and significant. Namely, the results reveal that *ZFS*AudcomQ* ($p<0.05$) and *ZFS*BoardMon* ($p<0.01$) have a significant negative relationship with ESGconts. Therefore, AudcomQ and BoardMon are significant moderators on the relationship between ZFS and ESGconts. This implies that risky firms with stronger audit committees and board monitoring are less likely to commit CSR controversies. Hence, the fourth hypothesis (i.e., H4) is accepted.

[Insert Table 5 here]

The moderation analysis is also illustrated in Figure 1 and Figure 2 by plotting the simple slopes at -1SD (Standard Deviation), 0SD, and +1SD of the moderating variables (AudcomQ and BoardMon). The independent testing variable (ZFS) is a continuous numerical variable, thus the ZFS values range from -1SD to +1SD on the x-axis when plotting the simple plots. The figures clearly illustrate that the simple slopes show a negative trend when the values of ZFS increase with the interaction of AudcomQ and BoardMon.

[Insert Figure 1 here]

[Insert Figure 2 here]

4.5. Robustness tests

In this section, we conduct various additional analyses to assess the robustness of the initial results by employing alternative methodologies, alternative samples, and alternative variables.

First, the baseline research models are re-run by excluding countries with less than 10 firms (Table 4, Columns #4, 5, and 6) since the small number of firms in a country may not produce reliable results. The results confirm the baseline outputs; while firm risk exacerbates CSR controversies, audit committee quality and board monitoring do not reduce it.

Second, the moderating role of AudcomQ and BoardMon is subject to an alternative sample excluding countries with less than 10 firms (Table 5, Columns #3 and 4). The results are in line with the initial moderation analysis in which the interaction variables including ZFS*AudcomQ and ZFS*BoardMon have a significant negative association with ESGconts; thus, audit committee quality and board monitoring help risky firms reduce CSR controversies.

Third, the baseline research models are re-run with an alternative dependent variable of governance controversies (GOVconts) calculated based on five proxies as described in Table A1. Thus, GOVconts is selected as the alternative dependent variable and the baseline analysis is re-run (Table 6, Columns #1, 2, and 3). Accordingly, the results show that the ZFS has a significant and positive relationship with GOVconts ($p<0.10$).

Moreover, the baseline research models are re-investigated by excluding US firms (Table 6, Columns #4, 5, and 6). The coefficients of AudcomQ and ZFS are significantly positive concerning ESGconts ($p<0.10$ and $p<0.01$ respectively). This implies that after the exclusion of the US from the sample, the monitoring ability of the audit committee quality weakens as AudcomQ was insignificant in the whole sample it is weakly positive and significant after the exclusion of the US.

[Insert Table 6 here]

Fourth, the research models with moderation analysis are re-run using an alternative independent testing variable of StdROA[9] for firm risk (Table 7, Columns # 1 and 2). Thus, the moderating role of AudcomQ and BoardMon on the relationship between StdROA and ESGconts is investigated. The results show that StdROA*AudcomQ ($p<0.05$) and StdROA*BoardMon ($p<0.01$) have a significant and negative relationship with ESGconts. Therefore, AudcomQ and BoardMon are significant moderators of the relationship between StdROA and ESGconts. Hence, the outputs of the baseline moderation analysis and robustness test are consistent.

Furthermore, the baseline research models with the moderation analysis are re-run by excluding US firms (Table 7, Columns #3 and 4). The interaction variable, ZFS*BoardMon, has a significant negative relationship with ESGconts while ZFS*AudcomQ does not have a significant relationship with ESGconts. This implies that after the exclusion of the US from the sample, the monitoring ability of the audit committee quality weakens in the sample as ZFS*AudcomQ was negative and significant in the whole sample, it is insignificant now after the exclusion of the US from the sample.

[Insert Table 7 here]

Fifth, we conducted an instrumental variable (IV) analysis using Two-Stage Least Squares (2SLS) regression to mitigate endogeneity concerns (Table 8) in both the linear models and the models with moderating effects. When performing the 2SLS regression analysis for the linear models, RSE[10] is used as an instrumental variable for AudcomQ and BoardMon independent testing variables since audit committee quality and board monitoring are highly likely to be affected by

[9] Rolling standard deviation of return on assets over three years.

[10] RSE denotes the strength of the regulation of securities exchanges in countries scaling between 1-7 (best) (WEF, 2018).

the RSE. Besides, RDexpenditure which denotes research and development expenditure scaled by total assets is used as an instrumental variable for ZFS independent testing variable since RDexpenditure is highly likely to trigger firm risk (Koirala et al., 2020). The results of the first stage, second stage, Durbin-Wu-Hausman test of endogeneity, and weak instrument test are reported. Accordingly, the Durbin-Wu-Hausman test of endogeneity (The null hypothesis: the regressors are exogenous) reveals that AudcomQ, BoardMon, and ZFS are endogenous regressors, thus the 2SLS approach can be utilized. Furthermore, the weak instrument test indicates that the instruments are not weak since the value of the test statistics is greater than the cut-off value of 10 (Stock et al., 2002). Lastly, we utilized a single instrument for each independent testing variable which is acceptable to use a single instrument technically (Wooldridge, 2010). Therefore, the results of the overidentifying test are not available since there exist no overidentifying restrictions in the analysis of 2SLS. The results reveal that ZFS has a significant positive relationship with ESGconts while AudcomQ and BoardMon do not have a significant relationship with ESGconts confirming the baseline results (Table 8, Panel A).

In a parallel fashion, we executed the 2SLS regression analysis for the models with moderating effects. Intangibility[11], CFO_Dummy[12], ZFS_IndMean[13], RD_Dummy[14], along with their interactions with the moderating variables (AudcomQ and BoardMon), were employed as instrumental variables following the suggestion by Wooldridge (2010). Given that we conduct the 2SLS for the moderating variables, there are three dependent variables in the first stage, encompassing the testing variable (ZFS), moderating variables (AudcomQ or BoardMon), and the

[11] Intangibility refers to the ratio of intangible assets scaled by total assets on the balance sheet.
[12] CFO_Dummy is coded as 1 when the Cash flow from operations is positive and coded as 0 otherwise.
[13] ZFS_IndMean is the industry & year average of ZFS excluding focal firms.
[14] RD_Dummy takes 1 if research and development expenditure is positive, and 0 otherwise.

interaction variables (ZFS*AudcomQ or ZFS*BoardMon). Comprehensive results of the first stages, second stages, and post-estimation test outcomes are outlined in Table 8, Panel B. Correspondingly, the post-estimation test results are satisfied, and the second stage outcomes align with the baseline models featuring moderating effects.

[Insert Table 8 here]

In the sixth test, we utilized the Propensity Score Matching (PSM). To address the skewness in raw ESG controversies score, we created an alternative sample using the PSM with a one-to-one matching approach (Rosenbaum and Rubin, 1983, Leuven and Sianesi, 2003). We matched observations with ESG controversies scores different from 100 with observations having ESG controversies scores exactly equal to 100. To perform the PSM method, we formed the treatment group comprising observations with ESG controversies scores different from 100, and we established the control group with observations having ESG controversies scores of 100. PSM enables the balancing of covariate distributions between treatment and control groups, mitigating skewness issues. Propensity scores are employed to match treated and control observations, ensuring similarity in observable characteristics between the two groups which mitigates the selection bias (Rosenbaum and Rubin, 1983).

After implementing the PSM and examining the descriptive statistics of ESGconts variable in the matched sample, there are 13,712 matched observations with a mean of -70.63 and a standard deviation of 32.38. The average of ESGconts changed meaningfully, moving from -91.22 to -70.63 following the application of PSM.

The linear and moderation models are re-evaluated using the PSM-matched sample. The outcomes are presented in Table 9, and they align with the initial baseline analysis results.

[Insert Table 9 here]

To mitigate the skewness in the distribution of ESGconts, we also applied the natural logarithm transformation to the raw ESGconts data. First, we divided the raw ESG controversies score by its median. Subsequently, we applied the natural logarithm to the resulting values to obtain Ln_ESGconts_raw to address the skewness[15]. This transformation compresses larger values and expands smaller values, contributing to a more normal distribution (West, 2022). We re-ran the baseline research models, introducing the natural logarithm transformation of ESGconts (Ln_ESGconts_raw). The outcomes, as presented in Table 10, align with the initial analysis results.

[Insert Table 10 here]

Finally, the moderating role of AudcomQ and BoardMon on the relationship between ZFS and ESGconts is re-examined using the country-industry-year fixed-effect regression analysis (Table 11). The results reveal that the product terms are significantly negative, which is consistent with the initial baseline moderation analysis results.

[Insert Table 11 here]

In consequence, the findings are largely robust to alternative sub-sample excluding the US, alternative sub-sample excluding countries with less than 10 firms, using an alternative dependent variable, moderation analysis with an alternative testing variable, country-industry-year fixed-effect, and endogeneity concerns.

[15] Ln_ESGconts_raw is based on the raw ESG controversies score. Unlike ESGconts variable used in the baseline analysis which is calculated by multiplying raw ESG scores with (-1), we took raw ESG scores in the calculation of Ln_ESGconts_raw to be able to take natural logarithm. Hence, higher Ln_ESGconts_raw value indicates committing less controversies.

5. Discussion and conclusion

Although a great number of papers focused on corporate governance mechanisms and CSR performance, studies on CSR controversies (irresponsibility) are scarce (Lin-Hi and Müller, 2013; Dharwadkar et al., 2021). While studying positive CSR is essential to stimulate good corporate citizenship behavior, drawing attention to bad corporate behavior is necessary to prevent future corporate social irresponsibility and to alert stakeholders. Hence, we focus on potential inhibiting and driving factors of CSR controversies such as board monitoring, and AC quality with a particular focus on risky firms.

Our findings reveal that board monitoring and AC quality do not prevent committing CSR controversies contrary to expectations. However, risky firms tend to commit more CSR controversies. Furthermore, AC quality and board monitoring intensity alleviate risky firms' CSR controversies tendency. Although the results are robust to most further and alternative tests, we highlight a notable point that the exclusion of the US from the sample produces contrary results for AC quality; it augments CSR concerns (although weakly) and loses its significant effect in mitigating risky firms' controversial CSR acts. Among control variables, CSR performance, firm complexity, research and development intensity, and indebtedness exacerbate CSR controversies, whereas larger boards and engaging with capital expenditures mitigate them.

Taken together with direct results and moderating effects, the ineffectiveness of board monitoring and AC quality in reducing CSR controversies may not necessarily mean the weakness of the internal governance mechanisms but is more related to the firm-specific conditions, institutional environment, and focus of those two monitoring mechanisms. Board monitoring and AC may not prioritize CSR controversies but financial reporting quality. For example, Krishnan et al. (2011),

Cohen et al. (2014), and Kusnadi et al. (2016) found that audit committee expertise and quality are drivers of financial reporting quality. Recent evidence also indicates that audit committee expertise and independence reinforce the value relevance of CSR reporting in the stock market (Kuzey et al., 2023). Moreover, board monitoring is influential in preventing corporate financial manipulation and fraud (Sharma, 2004: Wahid, 2019; Files and Liu, 2022). However, the unexpected insignificant finding might be related to the institutional environment as well. Although our global sample did not produce a direct effect of board monitoring and AC mechanisms on reducing CSR controversies, two US-based studies (Godfrey et al., 2024; Jain and Zaman, 2020) found that board gender diversity and governance bundle (i.e., board size, board independence, CSR committee, board gender diversity, board meeting attendance) diminish corporate social irresponsibility. However, we want to note that these two cited studies are conducted in the US and their governance metrics are different from the ones we used. The divergence between our results and previous studies' findings in direct effects might be associated with differing board monitoring metrics and the institutional environments in which the research is conducted. Lastly, our insignificant direct effects might signal that board monitoring and AC mechanisms may be prioritizing financial reporting quality and preventing financial fraud rather than CSR controversies.

However, the two monitors (i.e., AC and board monitoring) are extra-vigilant in harnessing CSR controversies in financially distressed firms which are more likely to commit CSR irresponsibility and hence may weaken the already fragile situation of the risky firms. Indeed, prior research points out the contingency's role in the negative effect of CSR controversies. For example, Kölbel et al. (2017) proved that CSR controversies if covered by the media evoke firm risk, and Nardella et al. (2020) found that CSR controversies alone do not trigger reputation loss unless the firm is found

culpable by law. In line with these findings, shareholders' reactions to these CSR controversies are also mixed since they may react indifferently (Fisher-Vanden and Thorburn, 2011; Lenz et al., 2017), or negatively (Price and Sun, 2017; Godfrey et al., 2024), or positively (Aouadi and Marsat, 2018; Melinda and Wardhani, 2020). Consequently, this evidence might have a relaxing effect on the firm's monitoring function about controversies' negative effect on stakeholders unless the firm is risky. Concerning the CSR controversy and firm risk relationship, there is not much evidence; in the opposite direction of the causality we investigated, Oikonomou et al. (2012) found that controversial CSR augments firm risk; hence, we find evidence for the reverse causality. Taken together, this evidence shows the existence of a bi-directional relationship between controversial CSR and firm risk.

Although positive CSR was among the control variables, we find it noteworthy to briefly comment on the positive association between CSR and CSR controversies as it is not much highlighted in the past literature. Ormiston and Wong (2013) explain this connection with moral licensing in such a way that engagement with CSR helps firm managers gather moral credits in society which eventually allows them to commit controversies that are supported by their empirical evidence.

6. Implications and future research avenues

The results suggest several theoretical and practical implications. The findings confirm agency theory and the monitoring function of the board indicating that it is highly likely to provide fundamental control over the firm's actions (Jensen and Mackling, 1976; Hill and Jones, 1992) associated with CSR controversies. In line with RDT, (Hillman and Dalziel, 2003) ACs reinforced with independent members and members with different skills and expertise provide critical resources in preventing CSR controversies. Besides, the results confirm the slack financial

resources theory (Waddock and Graves, 1997) that risky firms have a higher tendency to commit controversial CSR acts under the pressure of financial constraints.

The findings suggest several practical implications as well. It appears that the strength of AC and board monitoring strength have a context-specific effect in preventing CSR controversies; while they do not generate a direct effect on diminishing controversies in absolute terms, they have a moderating effect on risky firms' corporate irresponsibility. This could be attributable to two factors. First, ACs and board monitoring may not take CSR controversies seriously unless the firm is financially distressed. Second, considering the findings concerning the control variables, CSR concerns are natural outcomes of CSR engagement and firm complexity. Hence, intensive CSR engagement and the complexity of firms' operations induce committing CSR concerns of which ACs and board monitoring cannot further reduce those concerns or do not observe a serious drawback in these controversies.

Moreover, financial difficulties push firms to commit to more controversial CSR practices which could be driven by saving more costs out of CSR practices and by lack of sufficient funds to behave in a socially and environmentally responsible way. This finding may imply closer scrutiny of risky firms' CSR practices by regulatory bodies such as stock market regulators. However, the implication of the moderation analysis is that internal governance and monitoring strength provide a resolution for and barrier to risky firms' controversial activities. Despite the lack of direct effect of board monitoring and AC quality on controversial CSR, the existence of a moderating effect implies that these internal governance attributes pay particular attention to mitigating CSR irresponsibility in risky firms due to the reality that they tend to commit more CSR misconduct. However, we underline that non-US countries and firms need to review and revise their regulations

and qualifications concerning ACs so that they can be more influential in reducing financially distressed firms' CSR controversies.

Although the study provides valuable insights concerning the dynamics of CSR concerns, future studies could deepen the investigation by trying several other contingencies. For example, other than board monitoring, the board structure's potential effect on diminishing controversial activities could be tested. Moreover, external governance mechanisms could play a role in dissuading firms from undertaking CSR controversies which is worth investigating to suggest policymaking implications. It is also possible to imitate the approach of the study in particular contexts such as European Union member states, emerging markets, and transition countries which are quite different contexts and may bear different insights. This further investigation is particularly justified by slightly different results between the US and the non-US samples in this study.

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Table 1: Sample distribution

Variable	Categories	Frequency	Percent
Sector	Basic Materials	6,003	13.10
	Consumer Cyclicals	8,680	18.94
	Consumer Non-Cyclicals	4,095	8.93
	Energy	4,016	8.76
	Healthcare	4,184	9.13
	Industrials	9,629	21.01
	Technology	5,188	11.32
	Telecommunications Services	1,555	3.39
	Utilities	2,490	5.43
	Total	*45,840*	*100.00*
Year	2002	325	0.71
	2003	519	1.13
	2004	867	1.89
	2005	1,210	2.64
	2006	1,298	2.83
	2007	1,403	3.06
	2008	1,617	3.53
	2009	1,940	4.23
	2010	2,265	4.94
	2011	2,574	5.62
	2012	2,709	5.91
	2013	2,808	6.13
	2014	2,957	6.45
	2015	3,437	7.50
	2016	4,099	8.94
	2017	4,670	10.19
	2018	5,244	11.44
	2019	5,898	12.87
	Total	*45,840*	*100.00*

This table presents sample distribution across sectors and over periods.

Table 2: Descriptive statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
ESGconts	45,840	-91.22	22.23	-100.00	-0.63
GOVcont	45,840	-53.93	6.09	-58.67	0.00
AudcomQ	45,840	68.69	22.99	1.64	99.91
BoardMon	32,568	82.08	10.98	11.32	99.97
StdROA	34,682	0.02	0.03	0.00	0.15
ZFS	45,840	-3.11	1.20	-5.42	0.82
ESGscore	45,840	40.90	20.67	0.12	95.07
Bsize	45,840	10.01	3.36	4.00	21.00
Fsize	45,840	22.12	1.62	10.65	27.41
CurrentR	45,840	2.02	1.90	0.25	12.90
Leverage	45,840	0.56	0.22	0.05	1.16
FFP	45,840	77.09	24.76	0.00	100.00
Capexpend	45,840	0.06	0.06	0.00	0.42
RDexpend	45,840	0.02	0.05	0.00	0.27
WGI	45,840	1.11	0.59	-1.56	1.97

This table presents the descriptive statistics.

Table 3: Correlation analysis

	Variables	1	2	3	4	5	6	7	8
1	ESGconts	1							
2	GOVcont	0.643*	1						
3	AudcomQ	0.096*	0.047*	1					
4	BoardMon	0.078*	0.030*	0.799*	1				
5	StdROA	-0.006	-0.034*	0.051*	0.047*	1			
6	ZFS	0.041*	0.036*	0.050*	0.053*	-0.007	1		
7	ESGscore	0.276*	0.265*	0.088*	0.074*	-0.143*	0.020*	1	
8	Bsize	0.155*	0.154*	-0.107*	-0.026*	-0.179*	0.075*	0.274*	1
9	Fsize	0.319*	0.297*	-0.053*	-0.003	-0.277*	0.124*	0.487*	0.510*
10	CurrentR	-0.093*	-0.083*	0.037*	0.035*	0.200*	-0.234*	-0.199*	-0.206*
11	Leverage	0.124*	0.102*	0.037*	0.026*	-0.120*	0.662*	0.183*	0.199*
12	FFP	0.100*	0.041*	0.256*	0.308*	0.004	0.019*	0.087*	-0.055*
13	Capexpend	-0.018*	-0.023*	0.006	0.009	0.166*	0.021*	-0.075*	-0.063*
14	RDexpend	-0.012*	-0.009*	0.072*	0.045*	0.205*	0.017*	-0.058*	-0.140*
15	WGI	0.039*	0.001	0.117*	0.201*	0.023*	-0.008	0.027*	-0.125*

	Variables	9	10	11	12	13	14	15
9	Fsize	1						
10	CurrentR	-0.356*	1					
11	Leverage	0.325*	-0.547*	1				
12	FFP	0.002	0.045*	0.033*	1			
13	Capexpend	-0.088*	-0.022*	-0.065*	-0.059*	1		
14	RDexpend	-0.269*	0.342*	-0.176*	0.129*	-0.084*	1	
15	WGI	-0.106*	0.064*	-0.015*	0.424*	-0.009	0.086*	1

This table presents the correlation analysis. *p<0.05

Table 4: Audit committee quality, board monitoring, and firm riskiness and CSR controversies

	(1) ESGconts	(2) ESGconts	(3) ESGconts	(4) ESGconts	(5) ESGconts	(6) ESGconts
				Robustness	Robustness	Robustness
AudcomQ	0.0028			0.0033		
	(0.37)			(0.43)		
BoardMon		-0.030			-0.028	
		(-1.32)			(-1.24)	
ZFS			0.71***			0.67***
			(3.62)			(3.39)
ESGscore	0.083***	0.089***	0.082***	0.083***	0.089***	0.082***
	(7.62)	(5.98)	(7.62)	(7.57)	(5.96)	(7.59)
Bsize	-0.17***	-0.071	-0.17***	-0.16***	-0.071	-0.16***
	(-2.81)	(-0.77)	(-2.85)	(-2.66)	(-0.77)	(-2.70)
Fsize	1.29***	1.89***	1.24***	1.27***	1.92***	1.23***
	(4.97)	(5.74)	(4.77)	(4.86)	(5.81)	(4.68)
CurrentR	-0.025	-0.11	-0.044	-0.024	-0.11	-0.041
	(-0.24)	(-0.93)	(-0.42)	(-0.23)	(-0.96)	(-0.40)
Leverage	4.86***	3.88***	1.60	4.81***	3.78***	1.76
	(4.85)	(3.17)	(1.19)	(4.79)	(3.08)	(1.31)
FFP	0.0091	-0.00018	0.0096	0.0077	-0.00082	0.0083
	(0.84)	(-0.01)	(0.89)	(0.71)	(-0.06)	(0.76)
Capexpend	-8.08***	-8.81***	-7.82***	-7.87***	-8.75***	-7.63***
	(-3.29)	(-2.97)	(-3.18)	(-3.19)	(-2.95)	(-3.09)
RDexpend	9.53	17.8**	6.92	9.95	18.0**	7.50
	(1.34)	(2.15)	(0.97)	(1.40)	(2.17)	(1.05)
WGI	-0.063	2.13	-0.065	-0.50	1.97	-0.49
	(-0.04)	(0.93)	(-0.04)	(-0.32)	(0.86)	(-0.32)
Constant	-124.6***	-136.5***	-119.3***	-123.7***	-137.1***	-118.6***
	(-20.84)	(-17.61)	(-19.41)	(-20.54)	(-17.58)	(-19.19)
Firm & year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	45193	31820	45193	44753	31618	44753
Adj. R^2	0.315	0.343	0.315	0.314	0.340	0.314
F-stat.	14.51***	10.87***	15.82***	14.11***	10.84***	15.25***

This table presents the association between audit committee quality, board monitoring, and firm riskiness and CSR controversies. ESGconts refers to aggregate CSR controversies score ranging from -100 to 0; higher score denotes greater CSR controversies. While AudcomQ refers to audit committee quality proxied by the following formula: (audit committee independence score + audit committee expertise score)/ 2, BoardMon refers to board monitoring intensity proxied by the following formula: (board meeting attendance rate + audit committee quality + board committee index) / 3. ZFS refers to Zmijewski's (1984) financial distress proxy, as computed in equation (1). All variables are defined in Table A1. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Columns #1, 2, and 3 are based on full sample. Columns #4, 5, and 6 are based on excluding countries with less than 10 firms.

Table 5: Moderating role of AudcomQ and BoardMon

	(1) ESGconts	(2) ESGconts	(3) ESGconts	(4) ESGconts
			Robustness	Robustness
ZFS	-0.030	2.44***	0.017	2.34***
	(-0.11)	(3.15)	(0.06)	(3.01)
AudcomQ	0.053***		0.048***	
	(4.30)		(3.91)	
ZFS*AudcomQ	-0.0075**		-0.0089**	
	(-2.10)		(-2.46)	
BoardMon		-0.041		-0.039
		(-1.29)		(-1.21)
ZFS*BoardMon		-0.038***		-0.037***
		(-4.06)		(-3.97)
ESGscore	0.14***	0.15***	0.15***	0.15***
	(25.57)	(20.58)	(25.79)	(20.72)
Bsize	-0.010	0.071	-0.013	0.061
	(-0.30)	(1.48)	(-0.38)	(1.26)
Fsize	3.70***	4.02***	3.69***	4.00***
	(44.39)	(39.08)	(44.03)	(38.76)
CurrentR	0.34***	0.41***	0.35***	0.42***
	(5.26)	(5.32)	(5.36)	(5.40)
Leverage	5.61***	5.86***	5.74***	6.06***
	(7.72)	(6.80)	(7.88)	(7.02)
FFP	0.042***	0.052***	0.041***	0.050***
	(9.40)	(9.24)	(9.22)	(8.78)
Capexpend	9.55***	10.6***	9.58***	10.6***
	(5.71)	(5.36)	(5.71)	(5.35)
RDexpend	28.6***	32.3***	28.9***	32.3***
	(12.33)	(12.06)	(12.45)	(12.06)
WGI	1.12***	1.69***	1.20***	1.77***
	(6.06)	(7.24)	(6.45)	(7.53)
Constant	-193.6***	-195.8***	-193.5***	-195.8***
	(-95.07)	(-57.20)	(-94.48)	(-57.05)
N	45840	32568	45395	32356
Adj. R^2	0.145	0.161	0.145	0.160
F-stat.	600.05***	469.53***	597.89***	465.63***

This table presents the moderating role of audit committee quality and board monitoring between firm riskiness and CSR controversies. ESGconts refers to aggregate CSR controversies score ranging from -100 to 0; higher score denotes greater CSR controversies. While AudcomQ refers to audit committee quality proxied by the following formula: (audit committee independence score + audit committee expertise score)/ 2, BoardMon refers to board monitoring intensity proxied by the following formula: (board meeting attendance rate + audit committee quality + board committee index) / 3. ZFS refers to Zmijewski's (1984) financial distress proxy, as computed in equation (1). All variables are defined in Table A1. Columns #1 and 2 are for full sample and columns #3 and 4 are based on excluding countries with less than 10 firms. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Figures of Table 5

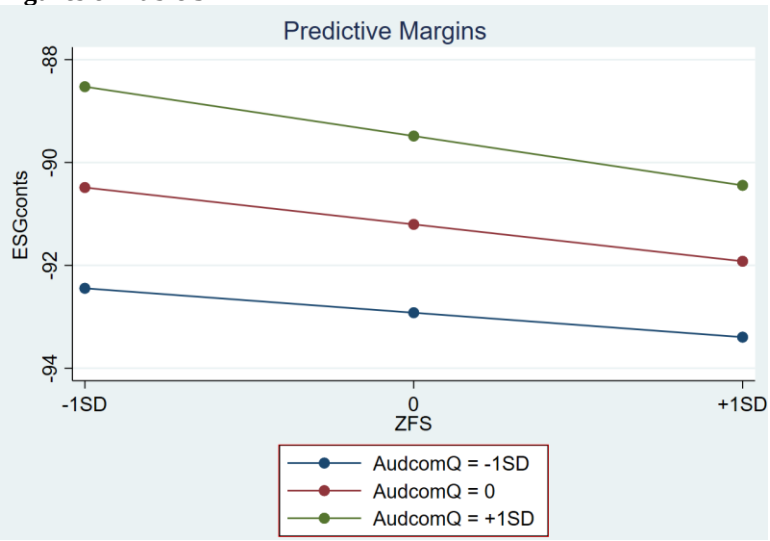

Figure 1: ZFS x AudcomQ

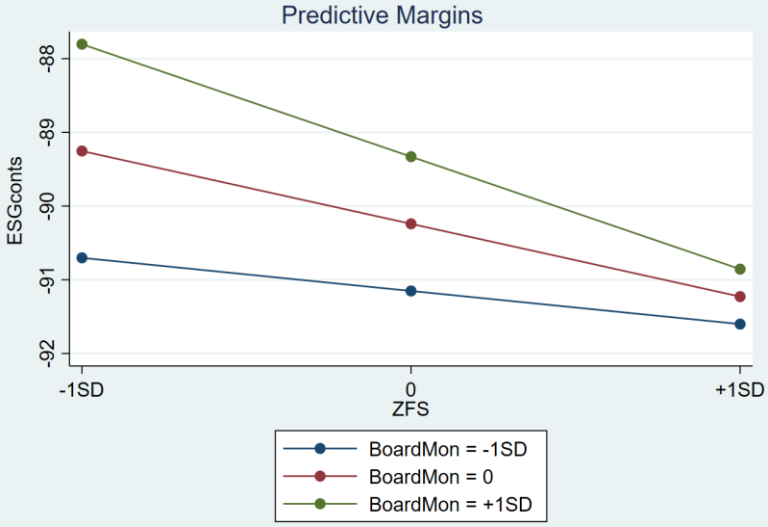

Figure 2: ZFS x BoardMon

Robustness

Table 6: Alternative dependent variable and excluding US firms from the sample

	(1) GOVconts	(2) GOVconts	(3) GOVconts	(4) ESGconts	(5) ESGconts	(6) ESGconts
AudcomQ	-0.0017			0.0075*		
	(-0.79)			(1.75)		
BoardMon		-0.0022			-0.019	
		(-0.35)			(-0.75)	
ZFS			0.083*			0.84***
			(1.78)			(3.67)
ESGscore	0.016***	0.012***	0.015***	0.074***	0.080***	0.074***
	(5.04)	(3.02)	(4.96)	(6.04)	(4.44)	(6.09)
Bsize	-0.016	0.015	-0.017	-0.15**	-0.0088	-0.15**
	(-0.95)	(0.59)	(-1.03)	(-2.40)	(-0.08)	(-2.41)
Fsize	0.38***	0.42***	0.38***	0.86***	1.12***	0.81***
	(5.17)	(4.63)	(5.07)	(2.93)	(2.92)	(2.78)
CurrentR	-0.032	-0.022	-0.034	0.071	0.018	0.052
	(-1.09)	(-0.67)	(-1.17)	(0.61)	(0.13)	(0.45)
Leverage	0.59**	0.16	0.21	4.61***	3.09*	0.65
	(2.06)	(0.48)	(0.56)	(3.77)	(1.94)	(0.40)
FFP	-0.0028	-0.0031	-0.0028	0.012	-0.00037	0.013
	(-0.91)	(-0.77)	(-0.91)	(1.06)	(-0.02)	(1.13)
Capexpend	-1.24*	-0.58	-1.21*	-8.53***	-8.66***	-8.24***
	(-1.78)	(-0.71)	(-1.73)	(-3.29)	(-2.71)	(-3.18)
RDexpend	-1.25	0.59	-1.55	8.33	11.8	4.34
	(-0.62)	(0.25)	(-0.76)	(0.97)	(1.14)	(0.50)
WGI	0.22	0.53	0.22	0.19	2.41	0.29
	(0.51)	(0.84)	(0.50)	(0.12)	(1.00)	(0.19)
Constant	-62.9***	-63.9***	-62.4***	-116.6***	-121.9***	-110.5***
	(-36.92)	(-29.62)	(-35.64)	(-17.86)	(-14.16)	(-16.44)
Firm & year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	45193	31820	45193	30848	19070	30848
Adj. R^2	0.261	0.286	0.261	0.293	0.324	0.294
F-stat.	7.67***	4.16***	7.83***	8.96***	4.92***	10.22***

This table presents the association between audit committee quality, board monitoring, and firm riskiness and CSR controversies by using an alternative dependent variable and excluding US firms from the sample. GOVconts refers to governance controversies score ranging from -100 to 0; higher score denotes greater governance controversies. Calculation of this variable is based on the average of five governance controversies indicators such as insider dealings controversies, accounting controversies, executive compensation controversies, anti-competition controversies, and bribery corruption and fraud controversies. While AudcomQ refers to audit committee quality proxied by the following formula: (audit committee independence score + audit committee expertise score)/ 2, BoardMon refers to board monitoring intensity proxied by the following formula: (board meeting attendance rate + audit committee quality + board committee index) / 3. ZFS refers to Zmijewski's (1984) financial distress proxy, as computed in equation (1). All variables are defined in Table A1. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Columns #1, 2, & 3: Alternative dependent variable. Columns #4, 5, & 6: Excluding US firms.

Table 7: Moderation analysis with alternative test variable and excluding US

	(1) ESGconts	(2) ESGconts	(3) ESGconts	(4) ESGconts
StdROA	92.2***	238.4***		
	(7.05)	(6.03)		
AudcomQ	0.092***		0.045***	
	(14.43)		(3.27)	
StdROA*AudcomQ	-0.44**			
	(-2.52)			
BoardMon		0.13***		-0.045
		(7.78)		(-1.28)
StdROA*BoardMon		-2.12***		
		(-4.47)		
ZFS			0.069	2.52***
			(0.24)	(3.08)
ZFS*AudcomQ			-0.0057	
			(-1.41)	
ZFS*BoardMon				-0.037***
				(-3.68)
ESGscore	0.14***	0.15***	0.15***	0.16***
	(23.10)	(19.18)	(22.80)	(18.25)
Bsize	0.015	0.088*	0.076**	0.23***
	(0.40)	(1.66)	(2.20)	(4.51)
Fsize	4.14***	4.42***	2.87***	2.93***
	(43.77)	(38.40)	(30.52)	(23.99)
CurrentR	0.22***	0.28***	0.24***	0.30***
	(2.99)	(3.19)	(3.12)	(3.13)
Leverage	3.65***	3.42***	4.98***	4.86***
	(5.99)	(4.72)	(5.87)	(4.60)
FFP	0.045***	0.059***	0.037***	0.049***
	(8.89)	(9.25)	(7.66)	(7.61)
Capexpend	4.65**	5.32**	10.2***	11.9***
	(2.41)	(2.36)	(5.45)	(5.18)
RDexpend	24.5***	27.3***	28.3***	35.2***
	(8.99)	(8.76)	(7.42)	(7.26)
WGI	0.95***	1.31***	0.92***	1.30***
	(4.52)	(4.96)	(5.14)	(5.73)
Constant	-204.2***	-216.2***	-174.2***	-172.5***
	(-99.68)	(-78.77)	(-75.59)	(-44.65)
N	39950	28832	31310	19636
Adj. R^2	0.146	0.159	0.125	0.139
F-stat.	531.59***	411.52***	359.79***	257.33***

This table presents the moderating role of audit committee quality and board monitoring between firm riskiness and CSR controversies by using an alternative testing variable and excluding US firms from the sample. ESGconts refers to aggregate CSR controversies score ranging from -100 to 0; higher score denotes greater CSR controversies. While AudcomQ refers to audit committee quality proxied by the following formula: (audit committee independence score + audit committee expertise score)/ 2, BoardMon refers to board monitoring intensity proxied by the following formula: (board meeting attendance rate + audit committee quality + board committee index) / 3. StdROA refers to rolling standard deviation of return on assets over three years. ZFS refers to Zmijewski's (1984) financial distress proxy, as computed in equation (1). All variables are defined in Table A1. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Columns #1 and 2: Alternative independent testing variable (StdROA). Columns #3 and 4: Excluding US.

Table 8: Two-Stage Least Squares (2SLS) regression analysis

Panel A

	(1) AudcomQ	(2) ESGconts	(3) BoardMon	(4) ESGconts	(5) ZFS	(6) ESGconts
	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage
AudcomQ		-0.10				
		(-1.05)				
BoardMon				-3.17		
				(-1.20)		
ZFS						9.67***
						(10.91)
RSE	1.96***		0.17*			
	(9.53)		(1.67)			
RDexpend	3.19	26.2***	-1.37	22.3***	2.83***	
	(1.11)	(9.65)	(-0.95)	(3.28)	(29.45)	
ESGscore	0.12***	0.15***	0.028***	0.23***	-0.0045***	0.20***
	(18.06)	(10.90)	(7.57)	(2.97)	(-19.94)	(29.00)
Bsize	-0.55***	-0.11	-0.027	-0.027	-0.0043***	-0.0045
	(-13.31)	(-1.64)	(-1.10)	(-0.22)	(-3.09)	(-0.12)
Fsize	-1.01***	3.77***	-0.089	3.94***	0.000096	3.72***
	(-10.02)	(25.00)	(-1.64)	(11.41)	(0.03)	(41.96)
CurrentR	0.47***	0.42***	0.21***	1.06*	0.089***	-0.55***
	(6.16)	(4.86)	(5.30)	(1.86)	(33.08)	(-4.65)
Leverage	9.06***	4.43***	1.43***	6.82*	4.32***	-38.1***
	(13.85)	(4.09)	(4.19)	(1.72)	(191.07)	(-9.79)
FFP	0.20***	0.10***	0.12***	0.48	-0.00063***	0.066***
	(41.87)	(4.68)	(46.40)	(1.47)	(-3.44)	(14.00)
Capexpend	12.5***	15.1***	5.63***	32.1**	1.55***	-4.37**
	(6.29)	(6.64)	(5.57)	(2.08)	(22.45)	(-2.01)
WGI					-0.016**	1.23***
					(-2.18)	(6.21)
Constant	59.4***	-185.4***	71.6***	29.3	-5.54***	-135.3***
	(23.87)	(-24.71)	(53.10)	(0.15)	(-79.00)	(-27.40)
Durbin-Wu-Hausman test of endogeneity		3.40*		5.05**		153.97***
Weak instrument test (F-value)		90.77		21.43		867.265
N	34076	34076	25317	25317	45840	45840
F-stat.	383.67***		286.56***		4793.39***	
χ^2-stat.		5551.02***		1423.80***		5978.84***

This table presents the association between audit committee quality, board monitoring, and firm riskiness and CSR controversies by using 2SLS regression analysis. ESGconts refers to aggregate CSR controversies score ranging from -100 to 0; higher score denotes greater CSR controversies. While AudcomQ refers to audit committee quality proxied by the following formula: (audit committee independence score + audit committee expertise score)/ 2, BoardMon refers to board monitoring intensity proxied by the following formula: (board meeting attendance rate + audit committee quality + board committee index) / 3. ZFS refers to Zmijewski's (1984) financial distress proxy, as computed in equation (1). RSE is used as instrumental variable for AudcomQ and BoardMon. RSE denotes regulation of securities exchanges scaling between 1-7 (best) (WEF, 2018). RDexpenditure is used as instrumental variable for ZFS. RDexpenditure denotes research and development expenditure scaled by total assets. All variables are defined in Table A1. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. We removed WGI in the columns # 1-4 due to the significantly positive correlation between WGI and RSE (p<0.01). RDexpend is an IV, so we removed it from the controls in column #6.

Panel B: Moderation analysis

	(1) ZFS	(2) AudcomQ	(3) ZFS*AudcomQ	(4) ESGconts	(5) ZFS	(6) BoardMon	(7) ZFS*BoardMon	(8) ESGconts
	1st stage	1st stage	1st stage	2nd stage	1st stage	1st stage	1st stage	2nd stage
ZFS				6.40***				47.3***
				(2.59)				(3.99)
AudcomQ				-0.12				
				(-1.16)				
ZFS*AudcomQ				-0.057*				
				(-1.72)				
BoardMon								-1.62***
								(-3.41)
ZFS*BoardMon								-0.51***
								(-3.53)
Intangibility	0.38**	-8.98***	-82.3***					
	(2.06)	(-19.25)	(-5.97)					
CFO_Dummy	-0.24***	-10.1***	28.0***		-1.16***	-74.2***	139.4***	
	(-3.44)	(-57.49)	(5.40)		(-17.33)	(-333.08)	(25.03)	
ZFS_IndMean	0.64***	19.4***	-16.3***					
	(23.89)	(283.65)	(-8.07)					
Intangibility*AudcomQ	0.013***	0.12***	2.48***					
	(5.22)	(19.14)	(13.46)					
CFO_Dummy*AudcomQ	-0.0046***	0.14***	-0.96***					
	(-4.94)	(59.14)	(-13.46)					
ZFS_IndMean*AudcomQ	-0.0015***	-0.28***	0.78***					
	(-5.10)	(-363.07)	(34.47)					
RD_Dummy					-0.22***	-13.4***	40.5***	
					(-2.64)	(-48.64)	(5.89)	
RD_Dummy*BoardMon					0.0031***	0.16***	-0.45***	
					(3.11)	(48.76)	(-5.39)	
CFO_Dummy*BoardMon					0.0034***	0.91***	-2.59***	
					(4.47)	(357.33)	(-40.69)	
ESGscore	-0.0051***	0.00019	-0.41***	0.12***	-0.0078***	0.0015	-0.64***	0.16***
	(-17.52)	(0.25)	(-18.60)	(14.64)	(-21.83)	(1.27)	(-21.40)	(15.27)
Bsize	-0.0034*	0.0087*	-0.30**	0.030	-0.0038	0.048***	-0.47**	0.17***
	(-1.84)	(1.82)	(-2.16)	(0.61)	(-1.54)	(5.79)	(-2.26)	(2.60)
Fsize	0.030***	-0.013	2.33***	3.85***	0.052***	-0.10***	4.32***	3.62***
	(6.65)	(-1.14)	(6.90)	(32.64)	(9.97)	(-6.05)	(10.02)	(26.71)
CurrentR	0.094***	-0.0084	8.06***	0.35***	0.085***	0.15***	6.88***	0.064
	(23.66)	(-0.83)	(26.97)	(2.81)	(21.37)	(11.66)	(20.92)	(0.42)
Leverage	4.22***	-0.11	305.2***	-5.33**	4.16***	0.36***	342.8***	-17.0***
	(143.01)	(-1.52)	(137.07)	(-2.15)	(126.72)	(3.32)	(125.76)	(-5.31)
FFP	0.00095***	0.0020***	0.065***	0.049***	0.000052	0.0099***	-0.019	0.055***
	(4.02)	(3.27)	(3.61)	(7.78)	(0.18)	(10.37)	(-0.81)	(7.15)

Capexpend	1.09***	1.63***	85.7***	13.6***	1.68***	0.89**	135.1***	2.53
	(9.62)	(5.62)	(9.97)	(4.46)	(15.70)	(2.50)	(15.18)	(0.85)
WGI	-0.019**	0.26***	0.28	1.04***	0.038***	-0.092**	4.04***	1.28***
	(-2.13)	(11.20)	(0.41)	(4.04)	(3.25)	(-2.34)	(4.13)	(4.16)
Constant	-4.10***	69.5***	-295.1***	-169.5***	-5.61***	82.3***	-459.5***	-27.6
	(-36.88)	(244.56)	(-35.13)	(-19.73)	(-54.20)	(239.07)	(-53.41)	(-0.71)
Durbin-Wu-Hausman test of endogeneity				27.04***				104.16***
Weak instrument test (Minimum eigenvalue statistics)				114.87				33.86
N	23022	23022	23022	23022	20446	20446	20446	20446
F-stat.	2218.94***	197089.11***	3724.63***		1821.06***	25935.87***	2006.92***	
χ^2-stat.				3378.96***				2924.76***

This table presents the moderating role of audit committee quality and board monitoring between firm riskiness and CSR controversies by using 2SLS regression analysis. ESGconts refers to aggregate CSR controversies score ranging from -100 to 0; higher score denotes greater CSR controversies. While AudcomQ refers to audit committee quality proxied by the following formula: (audit committee independence score + audit committee expertise score)/ 2, BoardMon refers to board monitoring intensity proxied by the following formula: (board meeting attendance rate + audit committee quality + board committee index) / 3. ZFS refers to Zmijewski's (1984) financial distress proxy, as computed in equation (1). RSE is used as instrumental variable for AudcomQ and BoardMon. Intangibility refers to the ratio of intangible assets scaled by total assets on the balance sheet. CFO_Dummy is coded as 1 when Cash flow from operations is positive and coded as 0 otherwise. ZFS_IndMean is the industry & year average of ZFS excluding focal firms. RD_Dummy takes 1 if research and development expenditure is positive, and 0 otherwise. All variables are defined in Table A1. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The minimum eigenvalue statistics in the output are 114.868 and 33.86 >10. These are very high values which suggest that the excluded instruments are jointly strong.

Table 9: PSM-based sample

Panel A: Table 4

	(1) ESGconts	(2) ESGconts	(3) ESGconts	(4) ESGconts	(5) ESGconts	(6) ESGconts
				Robustness	Robustness	Robustness
AudcomQ	-0.0028			0.0011		
	(-0.13)			(0.05)		
BoardMon		0.0027			0.0073	
		(0.04)			(0.12)	
ZFS			1.30*			1.22*
			(1.94)			(1.82)
ESGscore	-0.0073	0.020	-0.0085	-0.011	0.016	-0.011
	(-0.25)	(0.51)	(-0.29)	(-0.36)	(0.41)	(-0.38)
Bsize	-0.47***	-0.36	-0.48***	-0.48***	-0.34	-0.48***
	(-3.11)	(-1.64)	(-3.15)	(-3.14)	(-1.54)	(-3.17)
Fsize	-1.29	-0.48	-1.47*	-1.30	-0.49	-1.46*
	(-1.55)	(-0.46)	(-1.75)	(-1.55)	(-0.47)	(-1.74)
CurrentR	-0.33	-1.42***	-0.40	-0.34	-1.45***	-0.40
	(-0.72)	(-2.64)	(-0.87)	(-0.73)	(-2.68)	(-0.86)
Leverage	17.2***	11.8***	11.2**	17.3***	11.4***	11.7***
	(5.34)	(3.03)	(2.52)	(5.37)	(2.91)	(2.63)
FFP	-0.012	0.035	-0.0092	-0.012	0.038	-0.0097
	(-0.34)	(0.77)	(-0.27)	(-0.35)	(0.82)	(-0.28)
Capexpend	-33.3***	-37.4***	-31.9***	-32.7***	-37.5***	-31.3***
	(-3.37)	(-3.16)	(-3.22)	(-3.29)	(-3.16)	(-3.15)
RDexpend	23.4	19.4	23.4	23.6	19.5	23.6
	(0.80)	(0.51)	(0.80)	(0.81)	(0.51)	(0.80)
WGI	1.12	-3.35	1.18	0.71	-3.81	0.79
	(0.26)	(-0.52)	(0.27)	(0.16)	(-0.59)	(0.18)
Constant	-42.4**	-55.7**	-31.0	-42.0**	-55.3**	-31.1
	(-2.08)	(-2.16)	(-1.47)	(-2.05)	(-2.14)	(-1.47)
Firm & year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	12627	9091	12627	12522	9040	12522
Adj. R^2	0.306	0.318	0.306	0.304	0.317	0.304
F-stat.	5.96***	3.52***	6.34***	5.96***	3.42***	6.29***

This table presents the association between audit committee quality, board monitoring, and firm riskiness and CSR controversies based on PSM. ESGconts refers to aggregate CSR controversies score ranging from -100 to 0; higher score denotes greater CSR controversies. While AudcomQ refers to audit committee quality proxied by the following formula: (audit committee independence score + audit committee expertise score)/ 2, BoardMon refers to board monitoring intensity proxied by the following formula: (board meeting attendance rate + audit committee quality + board committee index) / 3. ZFS refers to Zmijewski's (1984) financial distress proxy, as computed in equation (1). All variables are defined in Table A1. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Columns #1, 2, and 3 are based on full sample. Columns #4, 5, and 6 are based on excluding countries with less than 10 firms.

Panel B: Table 5

	(1) ESGconts	(2) ESGconts	(3) ESGconts	(4) ESGconts
			Robustness	Robustness
ZFS	1.11	10.2***	1.13	9.84***
	(1.24)	(4.13)	(1.25)	(3.95)
AudcomQ	0.053		0.044	
	(1.44)		(1.19)	
ZFS*AudcomQ	-0.037***		-0.040***	
	(-3.26)		(-3.43)	
BoardMon		-0.26***		-0.26***
		(-2.74)		(-2.65)
ZFS*BoardMon		-0.14***		-0.14***
		(-4.92)		(-4.77)
ESGscore	0.074***	0.052***	0.077***	0.054***
	(4.63)	(2.70)	(4.81)	(2.80)
Bsize	-0.11	-0.061	-0.12	-0.084
	(-1.17)	(-0.51)	(-1.32)	(-0.70)

Fsize	2.23***	2.62***	2.23***	2.59***
	(9.24)	(9.23)	(9.20)	(9.08)
CurrentR	0.29	0.32	0.32	0.34
	(1.10)	(1.08)	(1.21)	(1.16)
Leverage	15.6***	15.3***	15.9***	15.8***
	(7.17)	(6.20)	(7.30)	(6.36)
FFP	0.027**	0.046***	0.029**	0.043***
	(2.05)	(2.89)	(2.20)	(2.70)
Capexpend	9.69	9.48	9.90*	9.76
	(1.64)	(1.42)	(1.67)	(1.46)
RDexpend	55.4***	57.5***	55.3***	56.9***
	(6.71)	(6.18)	(6.69)	(6.10)
WGI	1.84***	2.73***	1.90***	2.85***
	(3.32)	(4.01)	(3.40)	(4.15)
Constant	-149.3***	-133.5***	-149.7***	-133.7***
	(-23.90)	(-12.92)	(-23.87)	(-12.89)
N	13712	10094	13592	10032
Adj. R^2	0.056	0.057	0.056	0.056
F-stat.	52.52***	35.37***	52.35***	34.70***

This table presents the moderating role of audit committee quality and board monitoring between firm riskiness and CSR controversies based on PSM. ESGconts refers to aggregate CSR controversies score ranging from -100 to 0; higher score denotes greater CSR controversies. While AudcomQ refers to audit committee quality proxied by the following formula: (audit committee independence score + audit committee expertise score)/ 2, BoardMon refers to board monitoring intensity proxied by the following formula: (board meeting attendance rate + audit committee quality + board committee index) / 3. ZFS refers to Zmijewski's (1984) financial distress proxy, as computed in equation (1). All variables are defined in Table A1. Columns #1 and 2 are for full sample and columns #3 and 4 are based on excluding countries with less than 10 firms. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 10: Natural logarithm of the dependent variable to address the skewness

Panel A: Table 4

	(1) Ln_ESGconts_ raw	(2) Ln_ESGconts_ raw	(3) Ln_ESGconts_ raw	(4) Ln_ESGconts_ raw	(5) Ln_ESGconts_ raw	(6) Ln_ESGconts_ raw
				Robustness	Robustness	Robustness
AudcomQ	-0.000013			-0.000016		
	(-0.27)			(-0.32)		
BoardMon		0.00017			0.00016	
		(1.18)			(1.10)	
ZFS			-0.0043***			-0.0040***
			(-3.46)			(-3.22)
ESGscore	-0.00051***	-0.00055***	-0.00051***	-0.00051***	-0.00055***	-0.00051***
	(-7.46)	(-5.80)	(-7.46)	(-7.41)	(-5.78)	(-7.41)
Bsize	0.0011***	0.00051	0.0011***	0.0010***	0.00050	0.0010***
	(2.88)	(0.88)	(2.93)	(2.72)	(0.86)	(2.77)
Fsize	-0.0080***	-0.012***	-0.0077***	-0.0079***	-0.012***	-0.0076***
	(-4.84)	(-5.64)	(-4.65)	(-4.73)	(-5.71)	(-4.55)
CurrentR	0.00013	0.00070	0.00025	0.00013	0.00073	0.00023
	(0.20)	(0.93)	(0.38)	(0.19)	(0.96)	(0.36)
Leverage	-0.032***	-0.026***	-0.012	-0.032***	-0.025***	-0.013
	(-5.05)	(-3.28)	(-1.45)	(-4.98)	(-3.19)	(-1.56)
FFP	-0.000060	-0.0000028	-0.000063	-0.000052	0.00000092	-0.000055
	(-0.87)	(-0.03)	(-0.92)	(-0.75)	(0.01)	(-0.80)
Capexpend	0.050***	0.054***	0.049***	0.049***	0.054***	0.047***
	(3.22)	(2.89)	(3.12)	(3.12)	(2.86)	(3.03)
RDexpend	-0.060	-0.11**	-0.045	-0.063	-0.11**	-0.049
	(-1.35)	(-2.13)	(-0.99)	(-1.41)	(-2.15)	(-1.07)
WGI	0.00086	-0.014	0.00087	0.0036	-0.013	0.0036
	(0.09)	(-0.94)	(0.09)	(0.37)	(-0.86)	(0.37)
Constant	0.85***	0.92***	0.81***	0.84***	0.93***	0.81***
	(22.30)	(18.77)	(20.88)	(21.99)	(18.73)	(20.64)
Firm & year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	45193	31820	45193	44753	31618	44753
Adj. R^2	0.312	0.341	0.312	0.311	0.339	0.311
F-stat.	14.29***	10.52***	15.48***	13.86***	10.49***	14.89***

This table presents the association between audit committee quality, board monitoring, and firm riskiness and CSR controversies based on natural logarithm of CSR controversies proxy to reduce skewness. For this purpose, we divided the raw ESG controversies score by its median, and subsequently, we applied the natural logarithm to the resulting values to obtain Ln_ESGconts_raw to address the skewness. Unlike ESGconts variable used in the baseline analysis which is calculated by multiplying raw ESG controversies scores with (-1), Ln_ESGconts_raw is based on raw ESG controversies scores to be able to take natural logarithm. Hence, higher Ln_ESGconts_raw value indicates committing less controversies. While AudcomQ refers to audit committee quality proxied by the following formula: (audit committee independence score + audit committee expertise score)/ 2, BoardMon refers to board monitoring intensity proxied by the following formula: (board meeting attendance rate + audit committee quality + board committee index) / 3. ZFS refers to Zmijewski's (1984) financial distress proxy, as computed in equation (1). All variables are defined in Table A1. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Columns #1, 2, and 3 are based on full sample. Columns #4, 5, and 6 are based on excluding countries with less than 10 firms.

Panel B: Table 5

	(1) Ln_ESGconts_raw	(2) Ln_ESGconts_raw	(3) Ln_ESGconts_raw	(4) Ln_ESGconts_raw
			Robustness	Robustness
ZFS	-0.000035	-0.016***	-0.00032	-0.015***
	(-0.02)	(-3.20)	(-0.18)	(-3.07)
AudcomQ	-0.00031***		-0.00028***	
	(-4.01)		(-3.62)	
ZFS*AudcomQ	0.000050**		0.000059**	
	(2.20)		(2.55)	
BoardMon		0.00028		0.00026
		(1.35)		(1.28)
ZFS*BoardMon		0.00024***		0.00024***
		(4.11)		(4.03)

ESGscore	-0.00089***	-0.00092***	-0.00091***	-0.00093***
	(-24.86)	(-19.96)	(-25.06)	(-20.09)
Bsize	0.00013	-0.00034	0.00015	-0.00028
	(0.59)	(-1.10)	(0.67)	(-0.90)
Fsize	-0.023***	-0.025***	-0.023***	-0.025***
	(-43.45)	(-38.43)	(-43.10)	(-38.12)
CurrentR	-0.0022***	-0.0026***	-0.0023***	-0.0027***
	(-5.33)	(-5.35)	(-5.43)	(-5.43)
Leverage	-0.035***	-0.037***	-0.036***	-0.038***
	(-7.63)	(-6.67)	(-7.79)	(-6.89)
FFP	-0.00027***	-0.00033***	-0.00026***	-0.00031***
	(-9.44)	(-9.15)	(-9.25)	(-8.68)
Capexpend	-0.060***	-0.067***	-0.060***	-0.067***
	(-5.60)	(-5.31)	(-5.61)	(-5.30)
RDexpend	-0.18***	-0.20***	-0.18***	-0.20***
	(-12.05)	(-11.89)	(-12.17)	(-11.90)
WGI	-0.0070***	-0.011***	-0.0076***	-0.011***
	(-5.96)	(-7.16)	(-6.37)	(-7.47)
Constant	1.28***	1.29***	1.27***	1.29***
	(98.55)	(59.27)	(97.95)	(59.11)
N	45840	32568	45395	32356
Adj. R^2	0.138	0.154	0.139	0.154
F-stat.	571.00***	448.03***	568.82***	444.31***

This table presents the moderating role of audit committee quality and board monitoring between firm riskiness and CSR controversies based on natural logarithm of CSR controversies proxy to reduce skewness. For this purpose, we divided the raw ESG controversies score by its median, and subsequently, we applied the natural logarithm to the resulting values to obtain Ln_ESGconts_raw to address the skewness. Unlike ESGconts variable used in the baseline analysis which is calculated by multiplying raw ESG controversies scores with (-1), Ln_ESGconts_raw is based on raw ESG controversies scores to be able to take natural logarithm. Hence, higher Ln_ESGconts_raw value indicates committing less controversies. While AudcomQ refers to audit committee quality proxied by the following formula: (audit committee independence score + audit committee expertise score)/ 2, BoardMon refers to board monitoring intensity proxied by the following formula: (board meeting attendance rate + audit committee quality + board committee index) / 3. ZFS refers to Zmijewski's (1984) financial distress proxy, as computed in equation (1). All variables are defined in Table A1. Columns #1 and 2 are for full sample and columns #3 and 4 are based on excluding countries with less than 10 firms. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 11: Country-Industry-Year FE regression analysis

	(1) ESGconts	(2) ESGconts
ZFS	0.030	1.47*
	(0.11)	(1.90)
AudcomQ	-0.023*	
	(-1.81)	
ZFS*AudcomQ	-0.0064*	
	(-1.79)	
BoardMon		-0.11***
		(-3.37)
ZFS*BoardMon		-0.026***
		(-2.78)
ESGscore	0.13***	0.15***
	(21.67)	(18.10)
Bsize	0.13***	0.19***
	(3.49)	(3.65)
Fsize	4.41***	4.64***
	(47.65)	(40.67)
CurrentR	0.28***	0.34***
	(4.33)	(4.35)
Leverage	3.78***	4.97***
	(5.01)	(5.56)
FFP	0.022***	0.017***
	(4.36)	(2.66)
Capexpend	9.17***	10.5***
	(5.24)	(5.09)
RDexpend	24.0***	30.2***
	(8.92)	(9.70)
WGI	0.91**	1.12**
	(2.09)	(2.18)
Constant	-195.9***	-194.9***
	(-62.96)	(-41.91)
Country, industry, & year FE	Yes	Yes
N	45840	32568
Adj. R^2	0.167	0.183
F-stat.	95.85***	77.94***

This table presents the moderating role of audit committee quality and board monitoring between firm riskiness and CSR controversies by using Country-Industry-Year FE regression analysis. ESGconts refers to aggregate CSR controversies score ranging from -100 to 0; higher score denotes greater CSR controversies. While AudcomQ refers to audit committee quality proxied by the following formula: (audit committee independence score + audit committee expertise score)/ 2, BoardMon refers to board monitoring intensity proxied by the following formula: (board meeting attendance rate + audit committee quality + board committee index) / 3. ZFS refers to Zmijewski's (1984) financial distress proxy, as computed in equation (1). All variables are defined in Table A1. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Appendix

Table A1: Definitions of the variables

Variables	Description
StdROA	Rolling standard deviation of return on assets over three years.
ZFS	Zmijewski (1984) financial distress proxy, as computed in equation (1).
BoardMon	Board monitoring intensity proxied by the following formula: (board meeting attendance rate + audit committee quality + board committee index) / 3
AudcomQ	Audit committee quality proxied by the following formula: (audit committee independence score + audit committee expertise score)/ 2. The scale is from 0 to 100.
Board committee index	The index is calculated by the following formula: [(audit committee + nomination committee + compensation committee + corporate governance committee) / 4] * 100. The committees are binary variables taking 1 if a committee exists, and 0 if not.
Board meeting attendance rate	The overall average attendance percentage of directors in board meetings.
ESGscore	Aggregate CSR performance is an overall company score based on the self-reported information in the environmental, social and corporate governance pillars. The score ranges from 0 to 100. Higher score denotes greater CSR engagement.
ESGconts	ESG controversies score (based on 23 metrics) assesses a firm's exposure to environmental, social and governance controversies and negative events appearing in global media. Normally, the default value of controversy measure is 0, while companies with no controversies will get a score of 100 in the data source (Thomson Reuters Eikon). However, we reversed the scale by multiplying with -1 to indicate higher score shows higher CSR controversies. Thus, our aggregate CSR controversies score ranges from -100 to 0. Scores closer to -100 indicate fewer governance controversies, and scores closer to 0 indicate greater controversies.
GOVconts	Calculation of governance controversies variable is based on the average of five governance controversies indicators such as insider dealings controversies, accounting controversies, executive compensation controversies, anti-competition controversies, and bribery corruption and fraud controversies. All these five metrics' score range from 0 to 100; the default value of each controversy measure is 0, while companies with no controversies will get a score of 100 in the data source (Thomson Reuters Eikon). To get a composite governance controversies score, we summed up these five metrics and then scaled the sum by five. However, we reversed the scale by multiplying with -1 to indicate higher score shows higher governance controversies. Thus, our aggregate governance controversies score ranges from -100 to 0. Scores closer to -100 indicate fewer governance controversies, and scores closer to 0 indicate greater controversies.
Bsize	Board size is measured by the total number of board members.
Fsize	Firm size denotes natural logarithm of total assets.
Leverage	The proportion of total debt to total assets.
CurrentR	The ratio of total current assets to total current liabilities.
FFP	Free float percentage denoted by the proportion of shares available to shareholders for trading in the stock market without restriction.
Capexpend	Capital expenditures scaled by total assets.
RDexpend	Research and development expenditures scaled by total assets.
WGI	The average of six Worldwide Governance Indicators namely political stability and absence of violence/terrorism, voice and accountability, control of corruption, government effectiveness, regulatory quality, and rule of law (Values range between -2.5 and 2.5).

This table presents the definitions of the variables.

Table A2: Country-level sample distribution

	Country	Unique firms	Percent	Data points	Percent
1	Argentina	46	0.78	112	0.24
2	Australia	308	5.22	2,617	5.71
3	Austria	23	0.39	177	0.39
4	Bahrain	2	0.03	9	0.02
5	Belgium	37	0.63	315	0.69
6	Brazil	78	1.32	596	1.30
7	Canada	245	4.15	2,389	5.21
8	Chile	33	0.56	228	0.50
9	China	373	6.32	1,150	2.51
10	Colombia	15	0.25	79	0.17
11	Czech Republic	2	0.03	23	0.05
12	Denmark	37	0.63	362	0.79
13	Egypt	5	0.08	40	0.09
14	Finland	32	0.54	382	0.83
15	France	137	2.32	1,278	2.79
16	Germany	152	2.58	1,211	2.64
17	Greece	17	0.29	137	0.30
18	Hong Kong	187	3.17	1,509	3.29
19	Hungary	4	0.07	33	0.07
20	India	112	1.90	741	1.62
21	Indonesia	33	0.56	268	0.58
22	Ireland; Republic of	8	0.14	71	0.15
23	Israel	9	0.15	104	0.23
24	Italy	71	1.20	487	1.06
25	Japan	375	6.36	5,163	11.26
26	Kazakhstan	2	0.03	4	0.01
27	Kenya	1	0.02	5	0.01
28	Korea; Republic (S. Korea)	117	1.98	922	2.01
29	Kuwait	4	0.07	25	0.05
30	Luxembourg	1	0.02	8	0.02
31	Malaysia	49	0.83	405	0.88
32	Mexico	38	0.64	279	0.61
33	Morocco	1	0.02	11	0.02
34	Netherlands	45	0.76	425	0.93
35	New Zealand	42	0.71	291	0.63
36	Norway	54	0.92	375	0.82
37	Oman	4	0.07	17	0.04
38	Pakistan	2	0.03	6	0.01
39	Peru	26	0.44	91	0.20
40	Philippines	16	0.27	140	0.31
41	Poland	30	0.51	186	0.41
42	Portugal	15	0.25	126	0.27
43	Qatar	8	0.14	42	0.09
44	Russia	35	0.59	327	0.71
45	Saudi Arabia	20	0.34	83	0.18
46	Singapore	32	0.54	410	0.89
47	Slovenia	1	0.02	2	0.00
48	South Africa	89	1.51	760	1.66
49	Spain	56	0.95	501	1.09
50	Sri Lanka	1	0.02	10	0.02
51	Sweden	110	1.87	746	1.63
52	Switzerland	98	1.66	758	1.65
53	Taiwan	128	2.17	1,045	2.28
54	Thailand	33	0.56	245	0.53
55	Turkey	43	0.73	192	0.42
56	Uganda	1	0.02	1	0.00
57	United Arab Emirates	4	0.07	23	0.05
58	United Kingdom	312	5.29	3,357	7.32
59	United States of America	2137	36.23	14,530	31.70
60	Vietnam	1	0.02	1	0.00
61	Zimbabwe	1	0.02	10	0.02
	Total	*5,898*	*100.00*	*45,840*	*100.00*

This table presents the sample distribution across countries.