Director Labor Market: A Conduit for Corporate Social Responsibility*

Abstract

This study examines the effect of the outside directorship experiences of Chief Executive Officers (CEOs) on their own firms' corporate social responsibility (CSR) scores. Using the firm-level CSR ratings from MSCI KLD, we find that CSR scores of CEOs' outside directorship firms are positively associated with their home firms' CSR scores. Further, the greater the relative difference between the CSR scores of outside directorship firms and the CEOs' home firms, the greater the subsequent change in the CEOs' home firms' CSR scores, providing initial evidence of CSR propagation. While the strongest associations occur when the outside directorships' CSR scores are higher, there is some evidence that lower CSR scores in directorship firms are associated with subsequent decreases in the CSR scores in the CEO's own firm. These effects remain after accounting for the CSR experience of the board of directors. Our results are robust to using alternative ratings from Refinitiv. For identification, we employ staggered difference-in-differences estimations around large changes in directorship firms' CSR scores and conduct a Heckman two-step sample selection analysis to alleviate potential endogeneity concerns. We also find that CSR propagation is manifest in the social rather than the environmental dimension and is particularly pronounced in the product, diversity, and human rights social components of CSR, which are more homogeneous across different industries. Our results highlight the important role of the director labor market as a conduit for the propagation of CSR ideas, both positive and negative, contributing to the various literatures on the determinants of CSR, executive learning, and the propagation of corporate policies.

Keywords: Corporate social responsibility; Director labor market; Executive learning

JEL Classifications: D83, G34, M14

* The title of the paper has been changed from 'CEO Outside Directorship: A Conduit for Corporate Social Responsibility' to 'Director Labor Market: A Conduit for Corporate Social Responsibility' after the submission.

1. Introduction

Corporate social responsibility (CSR) has been in the limelight in recent years. According to the Governance & Accountability Institute report in 2021, about 92% (70%) of the S&P 500 (Russell 1000) companies published a sustainability report in 2020, showing their attention.[1] It is then natural to consider the role of CEOs in CSR as they are the important firm decision-makers. Nevertheless, how and where they learn CSR are important yet understudied research questions. Exposure to other firms through outside directorships is one potential source. For CEOs, their other outside directorships provide them with informative experiences where they regularly meet diverse executives working at different firms from different industries. The primary goal of this study is to investigate whether experiences through the director labor market serve as a conduit for CSR propagation, resulting in noticeable changes within the home firms of CEOs.

The influence of individual experiences on subsequent behaviors has been substantiated in various literature, encompassing fields such as economics (e.g., Arrow, 1962; Grossman et al., 1977) and psychology (e.g., Fazio et al., 1978; Boyd and Fales, 1983). Additionally, Rosen (1972) demonstrated that the labor market acts as a conduit for transmitting and attaining skills and knowledge. The director labor market is a quintessential example. Prior literature has documented that executives' experiences through the director labor market, such as forced CEO turnover, bankruptcy, and learning opportunities from outside boards, influence their skills, actions, and policies of their home firms.[2] Though corporate executives, especially CEOs, may not intentionally serve on outside boards to learn specific corporate policies as they face high

[1] See https://www.sustainability-reports.com/ga-institutes-publishes-2021-sustainability-reporting-in-focus-trends-report/.

[2] For example, forced-CEO-turnover experiences shape directors' monitoring skills (Ellis et al., 2021), former bankruptcy experiences of directors from other directorship firms affect their firms' risk-taking (Gopalan et al., 2021), CEOs imitate the R&D intensity of firms in which they serve as outside board members (Oh and Barker, 2018), and CFOs having outside directorship utilize the counseling and learning opportunities to improve their firms' financial reporting quality (Khan, 2019).

opportunity cost of time (Lipton and Lorsch, 1992) and have other incentives like prestige and networking opportunity (Fahlenbrach et al., 2010), recent articles have documented the director labor market as a venue for diverse executive experiences other than its well-known monitoring and advisory role (e.g., Adams and Ferreira, 2007). Yet, few studies have been published on whether CSR can be learned through executive experiences from the director labor market.

The underlying idea is that corporate practices can propagate across firms through the director labor market channel. Bouwman (2011) documents an influence effect through the director network in which corporate governance practices propagate through overlapping directors acquainted with different practices at appointing firms.[3] Prior literature also discovered the influence of social ties from employment history and sharing of common directors on firms pursuing similar corporate policies (Richardson et al., 2003; Fracassi, 2017). However, little is known whether environmental and social practices can be propagated and learned through the director labor market. These are worthwhile as unlike governance practices that are more directly related to the board itself, environmental and social practices are more directly related to the firm's operations. Thus, exposure to other firms' operations through outside directorship experiences may induce firms' CSR changes to converge through general best operations practices. If CSR propagates through the director labor market, then we should observe a divergence of CSR across firms run by executives serving on outside boards with heterogeneous CSR quality.

Our focus is on CSR ideas propagating from a CEO's directorships to the CEO's home firm. However, CSR information likely flows in both directions as firms may appoint a CEO as a director due to the CSR performance at the CEO's home firm. Cai et al. (2020) and Dunham et al. (2022) show that CEOs of firms with high CSR scores are more likely to hold outside directorships,

[3] Bouwman (2011) focuses on five corporate governance policies: board size, percentage of outside directors, CEO duality, CEO compensation, and director pay.

implying that firms may find CEOs of firms with high CSR scores attractive as directors. However, CEOs are appointed as directors of other firms for many other reasons beyond their own firm's CSR score, such as demonstrated better performance, their advisory capacity (Fahlenbrach et al., 2011), compensation experience (Hallock, 1997), and certification benefits (Fahlenbrach et al., 2010). In our sample, for example, we find that among the observations where a CEO gains new outside directorships in year *t*, the CSR scores of their newly appointed directorship firms in year *t*-1 are not statistically different from the CSR scores of their home firms in year *t*-1.[4] Thus, CEOs, on average, do not appear to be appointed as a director at another firm due to their own firm's CSR performance. But every CEO appointed as a director is exposed to the operations of the appointing firm, which the CEO can apply to his or her own firm, and these operations and practices can explicitly or implicitly impact the CEO's CSR performance in his or her own firm. This previously unexplored channel of CSR propagation across markets is the focus of this study.

For empirical validation, we focus on CEO's outside board memberships within other Standard and Poor's (S&P) 1500 firms using the Institutional Shareholder Services (ISS) data. We merge this outside directorship data with the Morgan Stanley Capital International ESG Kinder, Lydenberg, and Domini & Co. STATS (MSCI KLD) database to measure each firm's CSR quality. The MSCI KLD database has been both widely and frequently used in finance research studies (e.g., Deng et al., 2013; Krüger, 2015; Lins et al., 2017). However, prior literature has shown that CSR (or ESG) ratings from different rating agencies disagree substantially (e.g., Chatterji et al., 2016; Berg et al., 2022). To validate that our findings are not merely a product of a specific rating agency, we additionally use the ratings from the Refinitiv ESG database to proxy for each firm's CSR quality. After adding CEO, firm, and board-level characteristics, the final sample includes

[4] We did not consider observations where the CEO of a focal firm in year *t* was not the CEO of that firm in year *t*-1 as those firms' CSR quality in year *t*-1 should not have been attributable to the CEO appointed in year *t*.

20,076 firm-year observations over the 1996-2018 period using MSCI KLD and 9,904 firm-year observations over the 2002-2018 period using Refinitiv. As the Refinitiv ESG database tracks much fewer US firms, we use this smaller sample mainly to substantiate our baseline results.

We conduct two main baseline analyses to validate that the director labor market functions as a conduit for CSR practices. First, a CEO's home firm's CSR is associated with the CSR of his or her outside directorship firms (i.e., Association). However, not all outside board experiences should be equally impactful to their home firms. To support this, we exploit the relative CSR quality difference between the CEOs' home firms and their directorship firms for our second result. We find that the bigger the gap in CSR between CEO's home firm and his or her outside directorship firms, the greater the subsequent change in CSR at CEO's home firm (i.e., Relative Influence). All these results are consistent with a similar measure for the board where the rationale for the control comes from the fact that the directors of the firm are also the board members of other firms who can also affect a focal firm's CSR policy from their experience.

Our results are subject to mainly two endogeneity concerns. The first concern is omitted variable bias. To mitigate this, we employ a staggered difference-in-differences framework with matching, using dramatic CSR score changes in CEO's outside directorship as the event. The result asymmetrically supports our baseline findings such that a positive event result indicates an incremental positive association between CEO's outside directorship CSR and his or her home firm's CSR, while the negative event result does not. The asymmetry can be due to two reasons. Econometrically, the magnitude of the dramatic negative changes is smaller than that of the dramatic positive changes. Anecdotally, firm policies that positively affect CSR are more likely to be visible to CEOs due to external stakeholders' growing interest in socially responsible policies

and investments. The events we consider are less likely to be endogenous and help alleviate the issue to some degree.[5]

The second concern is self-selection bias. A CEO's or firm's decision to let its CEO hold an outside directorship may not be random, and this non-randomness can cause a self-selection bias. We employ a Heckman two-step sample selection model to address the endogenous choices of the CEO's outside directorships. After controlling for the inverse Mills ratio calculated from the first-stage probit model, which is a solid measure of the presence of selection bias, we continue to document a significant positive relation between CEO's outside directorship's CSR quality and his or her focal firm's CSR quality, bolstering our main findings.

Next, to better understand the mechanism of CSR propagation, we examine which dimensions of CSR are more readily diffusible than the others. To do so, we decompose our CSR measure to each of the six dimensions of CSR (environment, employee, product, community, diversity, and human rights) and extend the baseline specification to separately examine the effect of CEO outside directorship experience on each of the six dimensions of CSR activities of the CEO home firms. We find that CEO home firms are not significantly affected by environment, employee, and community dimensions, whereas product, diversity, and human rights dimensions are significantly altered. The firm policies associated with the former three dimensions are more heterogeneous across different industries, making the propagation more difficult. We also examine whether CEOs focus more on adjusting positive or negative aspects of CSR following their outside directorship experiences. We find that CEOs focus on both strengthening the positive aspects of CSR and reducing the negative aspects of CSR. However, the effect of the former is relatively larger than the latter.

[5] CEOs mostly hold outside directorships in different industries (Fahlenbrach et al., 2010). Thus, the events are less likely to be shocks that simultaneously affect the appointing and appointee firms, bolstering the event's exogeneity.

In a final set of robustness tests, we exploit limiting the baseline result around plausibly exogenous CEO turnovers, using alternative model specifications, and using alternative CSR scoring measures to support the main results. Our results are unaffected.

We contribute to several strands of literature. First, we extend the literature on the firm's determinants of CSR. An expanding literature has taken note of whether or what firm leadership characteristics affect CSR performance. Despite its attention, more emphasis has been placed on the innate, demographic, and personal characteristics of firm executives (e.g., Di Giuli and Kostovetsky, 2014; Cronqvist and Yu, 2017; McGuinness et al., 2017; Harjoto et al., 2019; Hegde and Mishra, 2019; Dyck et al., 2023).[6] Relatively less is known about whether firm executive characteristics, influenced by their work experiences, affect CSR performance. A recent exception is Iliev and Roth (2023), which demonstrates that board members serving on the foreign firms that experienced sustainability reforms enhance their sustainability expertise, affecting their home firms' sustainability performance. We fill a gap in this literature by showing that a CEO's outside directorship experience can influence his or her home firm's CSR.

Second, we add to the literature on the executive learning from their experiences, which can ultimately affect corporate policies. Such effects are discovered in broad areas of corporate policies, including financial policies (e.g., Malmendier et al., 2011; Custódio and Metzger, 2014; Benmelech and Frydman, 2015), corporate innovation (e.g., Kang et al., 2018; Kong et al., 2021; Quan et al., 2021), board diversity (e.g., Zhu and Shen, 2016), mergers and acquisitions (e.g., Custódio and Metzger, 2013; Ding et al., 2021), and corporate risk-taking (e.g., Bernile et al., 2017). However, the extant literature has been relatively quiet on the effect of executive experience on CSR and is yet mostly restricted to executives' tough early life experiences on CSR (e.g.,

[6] For more detailed literature, see Gillan et al. (2021), which provides a review of CSR research in corporate finance.

O'Sullivan et al., 2021; Xu and Ma, 2021; Choi et al., 2023). Our results bolster the argument that CSR knowledge propagation across firms exists through the executive learning framework. We should note that we do not claim that firm executives must hold outside directorships to learn CSR, as these additional duties require significant time commitments (Lipton and Lorsch, 1992). Furthermore, our focus is not on whether CSR benefits or harms shareholders. Instead, we examine the role of the director labor market as a CSR conduit. The initial findings indicate that the director labor market does serve as a conduit for changes in CSR, both increases and decreases.

The paper's last contribution is its linkage with the contagion (or propagation) literature. The extant literature has documented substantial contagion effects on corporate policies, such as governance practices (Bouwman, 2011), compensation (Bereskin and Cicero, 2013), earnings management (Chiu et al., 2013), acquisition (Field and Mkrtchyan, 2017), board characteristics (Iliev and Roth, 2018) and risk-attitude (Gopalan et al., 2021). We add to this stream of research by demonstrating that CSR is a policy that can be propagated through the director labor market.

2. Data, variables, and sample

2.1. Sample construction

We focus our analysis on S&P 1500 firms. CEO- and director-level data are from ISS (formerly RiskMetrics), firm-level data are from Compustat, equity-level data are from CRSP (Center for Research in Security Prices), and institutional ownership data are from the Thomson/Refinitiv Institutional Holdings database (13F). We start the sample construction using the linking table provided by Coles et al. (2014).[7] It fixes the issues related to the ISS database (firm identifier, director identifier, and date of the annual meeting) and provides the exact 'GVKEY – PERMNO – Fiscal year – CUSIP – Annual meeting date – Unique Director ID'

[7] We thank Coles et al. (2014) for making the linking table publicly available at: https://sites.temple.edu/lnaveen/data.

combinations for each ISS database observations. Using this linking table, we construct our main dataset merging the ISS dataset with Compustat (using GVKEY), CRSP (using PERMNO), and 13F database (using PERMNO) starting from 1996 when ISS is first available.

We next obtain CSR ratings of the firms from Morgan Stanley Capital International's ESG Kinder, Lydenberg and Domini & Co. STATS database (MSCI KLD henceforth) and Refinitiv ESG database (Refinitiv henceforth). The MSCI KLD database covers approximately 650 firms from 1991 to 2000, approximately 1,100 firms from 2001 to 2002, and approximately 3,100 largest publicly traded firms from 2003 to 2018. The Refinitiv database covers more global-level firms but a smaller cross-section of US firms back to 2002. We merge our main dataset with the MSCI KLD and Refinitiv databases separately. For MSCI KLD, the final sample consists of 20,076 firm-year observations from fiscal years 1996 to 2018. For Refinitiv, the final sample consists of 9,904 firm-year observations from fiscal years 2002 to 2018.

2.2 Outside directorship seats

Following previous literature, we count the number of outside directorships a focal CEO held during the firm-year (Geletkancyz and Boyd, 2011) within S&P 1500 level firms from ISS (Masulis and Mobbs, 2014). We first identify each firm's CEO using a flag column for the CEO indicator and a column indicating each director's primary employer. For cases where CEOs are not listed, we follow Mobbs (2013) and identify the single inside directors or insiders listed as President or Chairman as the CEOs. We dropped the cases of multiple CEOs and no insiders listed.

ISS provides a column measuring the number of public boards on which the individual serves as a director named *Number_of_Other_Major_Company_Boards*. Zhu (2020) describes several issues with this variable. The main issue directly related to our research question is that it sometimes counts the seats on CEO's home board but sometimes does not, it sometimes provides

different values in the same year when a CEO holds multiple directorships, and finally, this variable is missing for some CEOs. Thus, we manually count the number of S&P 1500 level directorships each CEO holds. We apply the same methodology when we create the number of outside directorships for each director.

2.3. CSR score

We construct a firm's CSR score using the dataset provided by the MSCI KLD database, which has been used in various business and finance studies (e.g., Hong and Kostovetsky, 2012; Deng et al., 2013; Servaes and Tamayo, 2013; Chava, 2014; Krüger, 2015; Cronqvist and Yu, 2017; Lins et al., 2017). Relative to comparable CSR or ESG databases, using MSCI KLD has advantages as it covers the longest time and a substantially greater number of US firms. However, studies also show that CSR or ESG ratings disagree substantially across different rating agencies (e.g., Chatterji et al., 2016; Berg et al., 2022). Thus, we also use CSR scores created by Refinitiv to validate that our results are not merely a product of a specific rating agency. Refinitiv covers a much smaller cross-section of US firms during our sample period, so we use Refinitiv only to corroborate our baseline results.

MSCI KLD provides firm-level information for positive (or strength) and negative (or concern) performance ratings along seven qualitative issue dimensions, including Community, Corporate Governance, Diversity, Employee, Environment, Human Rights, and Product. Consistent with previous literature, since corporate governance is different from CSR (Cronqvist and Yu, 2017; Hegde and Mishra, 2019) and since MSCI KLD's corporate governance dimension construction differs from the other dimensions (Kim et al., 2019), we construct our CSR score using the remaining six dimensions.[8] As discussed by Mănescu (2011), a direct comparison of

[8] MSCI KLD also provides ratings called controversial business issues that capture a concern rating for alcohol, gambling, tobacco, firearms, military, and nuclear power. We excluded these consistent with many other studies.

CSR scores across years and dimensions using the MSCI KLD database has limitations because the total possible number of strength and concern indicators for each dimension varies over time. As a solution, we follow Deng et al. (2013) to construct a more comparable CSR score as follows:

$$\text{CSR of dimension } k = \frac{\text{Strength indicators scored in dimension } k}{\text{Total strength indicators in dimesinon } k} - \frac{\text{Concern indicators scored in dimension } k}{\text{Total concern indicators in dimesinon } k}$$

where k = {Community, Diversity, Employee, Environment, Human Rights, and Product}. We then add up the CSR measures for all six dimensions. Thus, each firm's score ranges from -6 to 6. We compute each CEO's home firm's CSR score and define it as the *Primary CSR score*.

Unlike MSCI KLD, which provides indicators for positive and negative performance ratings along each dimension, the Refinitiv ESG database provides proprietary aggregate environmental and social scores that range from zero to one. To compute the comparable *Primary CSR score* as the KLD, we calculate an overall CSR score by taking the average of the environmental and social scores following Iliev and Roth (2023). A firm whose Refinitiv *Primary CSR score* is closer to one (zero) performs CSR well (poorly) relative to other firms within an industry and year.

We also construct a similar measure for each CEO's outside directorship firms. We define it as the *Directorship CSR score* to capture its association with the *Primary CSR score*, which is our first baseline result. For MSCI KLD, if a CEO does not serve on any outside boards, we let his or her *Directorship CSR score* be zero. This is because the mean and median scores a firm can receive are all theoretically and empirically zero in our sample. However, the corresponding measure for Refinitiv is more nuanced as Refinitiv does not separately provide positive and negative indicators. Thus, we rely on Refinitiv's data description. Refinitiv describes that the score of 0.25 is the boundary between firms that perform poor relative to peers and firms that perform

satisfactorily relative to peers.[9] Thus, for Refinitiv, if a CEO does not serve on any outside boards, we set his or her *Directorship CSR score* as 0.25.

A CEO may hold multiple board seats in a given year. Masulis and Mobbs (2014) show that independent directors with multiple directorships do not equally exert efforts across all directorship firms they serve. Instead, they appraise the reputation of their directorships, measured by each firm's market capitalization, and unequally distribute their efforts. Deduced from their study, for CEOs with multiple outside directorships, we compute their *Directorship CSR score* by taking a weighted average using each firm's market capitalization as weight because it is likely that CEOs are more affected by their experience where they have exerted more effort.

We also use the abovementioned CSR measures to examine whether the relative CSR score difference between CEOs' home firms and their directorship firms matters for CEOs' learning. If a considerable score gap exists between the CEO's home firm and his or her directorship firms, then CEOs could learn more from their experience. To examine this hypothesis, which is our second baseline result, we create a variable *CSR gap* defined as the difference between the CSR score of the CEO's directorship firms and the CSR score of his or her home firm (i.e., *Directorship CSR Score - Primary CSR Score*).

Finally, in light of literature showing that directors can significantly affect corporate policies (e.g., Gopalan et al., 2021; Iliev and Roth, 2023) from their professional experiences, we construct similar measures for the board. The rationale is that many of the independent directors of a focal firm are also the board members of other firms and are also exposed to the CSR environment of those firms. Thus, a firm's board can also bring some CSR-related insights into the firm. For each independent director of a focal firm, we create an analogous CSR measure to

[9] https://www.refinitiv.com/content/dam/marketing/en_us/documents/methodology/refinitiv-esg-scores-methodology.pdf.

Directorship CSR Score for his or her other directorship firms and then compute the simple average of those scores for each firm's board members. We define it as *Board CSR Score*. Consistent with that of the CEO, we further create a variable *Board CSR gap* defined as *Board CSR score* minus *Primary CSR score* to examine the impact of relative CSR score difference between their outside directorship experiences and their focal firms.

2.4. Control variables

We include standard firm and CEO characteristics and other determinants contributing to CSR that have been discovered by prior research. At the firm level, we add the natural logarithm of Total Assets (Log(Assets)) to control for firm size, Leverage, measured by the ratio of the sum of long-term debt and debt in current liabilities to total assets, to control for the degree of access to finance, and return on assets (ROA), measured by EBITDA over Total Assets, to control for financial performance. We also add Research and Development Expense divided by Total Assets (R&D/Assets) and Advertising Expense divided by Total Assets (Adv/Assets) to control for R&D intensity and advertising intensity. We add capital expenditure divided by Sales (Capital expenditure/Sales) to control for potential growth opportunities, percentage of the tangible assets (Percent tangible assets) to control for tangibility, operating cash flow (Cash flow from operations/Total Assets) to control for the effect of cash a firm generates, and Market-to-book ratio (Market value of equity/Book value of equity) to control for financial distress. Finally, annual stock return (compounded 12-month return for the fiscal year), annual stock volatility (standard deviation of most recent 12-month return for the fiscal year), and institutional ownership ratio (percentage of ownership held by institutional investors) are also added. At the CEO and board level, we control the CEO's age, tenure, gender, and percentage of independent directors.

2.5. Descriptive statistics

Table 1 provides summary statistics for the full sample. Panel A reports the summary statistics for CSR scores. For samples using MSCI KLD ratings, the mean CSR score of CEO's home firm is 0.00416, and the median is 0. The mean CSR score of CEO (board)'s outside directorship firms is 0.0173 (0.0116), and the median is 0 (0). For samples using Refinitiv ratings, the mean CSR score of CEO's home firm is 0.502, and the median is 0.468. The mean CSR score of CEO (board)'s outside directorship firms is 0.354 (0.353), and the median is 0.25 (0.33). Given that the MSCI KLD CSR score can range from -6 to 6 and the Refinitiv CSR score can range from 0 to 1, our sample firms' CSR variables are not much skewed to either side.

Panel B reports the summary statistics for the firm-level variables. The firms we study are the typical S&P 1500 level firms. The average firm controls 8.149 (with natural logarithm) in total assets. On average, the sample firms have a leverage of 22%, a market-to-book ratio of 3.53, an ROA of 15%, and capital expenditure scaled by sales of 0.075. The average percentage of tangible assets is 81%, and the operating cash flow is 0.114. The average annual stock return is 14%, and the annual volatility is 0.327. Finally, the sample firms are typical S&P 1500 level firms with a high average institutional ownership of around 76%.

Panel C reports the summary statistics for the director- and CEO-level variables. About 27% of firms have CEOs who serve outside directorship positions in other firms. This is similar to the recent paper by Zhu (2020), who manually collected the total number of S&P 1500 outside directorship seats held by S&P 1500 firms' CEOs from each firm's proxy statement from 1999 to 2012. About 75% of the directors are independent. Regarding CEO characteristics, about 3% of the are women, the average age is close to 57, and the average CEO tenure is close to 10 years.

3. Results

3.1. Baseline result 1: Association

We first start with a research question that a CEO's home firm's CSR is associated with the CSR of his or her outside directorship firms. We term this question of interest as an association. We test whether a CEO's home firm's CSR score is associated with his or her directorship firm's CSR score. We use OLS regression where the dependent variable is the CSR score of each CEO's home firm (*Primary CSR Score*), and the main explanatory variable is the one-year lagged CSR score of his or her directorship firms (*Directorship CSR Score*). We also include industry (or firm) and year fixed effects to absorb any time-invariant unobservable variation at the industry (or firm) level and unobservable time-variation. Standard errors are adjusted for heteroskedasticity and clustered by firm. The regression specification is as follows:

$$Primary\ CSR_{i,t} = \beta_0 + \beta_1 Directorship\ CSR_{i,t-1} + \beta_2 Controls_{i,t-1} + \gamma_i\ (\gamma_j) + \mu_t + \epsilon_{i,t}, \qquad (1)$$

where *i*, *j*, and *t* stand for firm, industry, and year, respectively.

Table 2 shows the result. Columns (1) and (2) are based on MSCI KLD's rating data, and columns (3) and (4) are based on Refinitiv's rating data. The estimated result suggests that the CEO and board's outside directorship CSR quality is positively associated with their home firm's CSR quality, suggesting a possible propagation of CSR knowledge from the executive's professional outside experience. As shown in columns (2) and (4), our results are robust to the inclusion of firm fixed effects, implying that time-invariant firm-specific characteristics do not drive our results. In the robustness section, we also complement the result by restricting the analyses around a focal firm's plausibly exogenous CEO turnovers, and the corresponding results are qualitatively consistent.

3.2. Baseline result 2: Relative Influence

Section 3.1 provides evidence that the outside board experiences of CEOs and board members incentivize their home firms to reflect on their CSR scores. However, not all outside board experiences should be equally impactful to their home firms. To better understand the characteristics of the experiences that are more meaningful and directional, we estimate an OLS regression where the dependent variable is the one-year leading change in *Primary CSR Score* from year *t* to *t*+1 and the main explanatory variable is the *CSR gap* defined as the difference between CEO's directorship CSR score and his or her home firm's CSR score (i.e., *Directorship CSR Score – Primary CSR Score*). We also add a similar measure for the board, the *Board CSR gap*, defined as the difference between each focal firm's board's CSR score and the focal firm's CSR score (i.e., *Board CSR Score – Primary CSR Score*). The underlying idea is that more significant learning can occur from experiences with a more 'relative' CSR score difference between two firms. Even if the difference exists between the two firms' CSR quality, there may not be much to learn if the difference is negligible.

Other specifications are equivalent to those from Table 2 except that econometrically, we only consider including the industry fixed effect (not firm fixed effect) as the dependent variable is change rather than level.[10] Also, since the dependent variable is the CSR score change from year *t* to *t*+1 and since the dependent variable at time *t* ($Primary\ CSR_{i,t}$) affects the creation of $CSR\ gap_{i,t}$, we add the top tercile and bottom tercile indicators for $Primary\ CSR_{i,t}$ to alleviate the concern that the initial level of $Primary\ CSR_{i,t}$ biases the result.[11] The regression specification is as follows:

[10] The results are qualitatively similar even if we include firm fixed effect instead of industry fixed effect.
[11] As robustness, we also replace the top and bottom tercile indicators with the top and bottom quintile indicators, and the results are qualitatively similar.

$$\Delta Primary\ CSR_{i,t-1\rightarrow t} = \beta_0 + \beta_1 CSR\ gap_{i,t-1} + \beta_2 Controls_{i,t-1} + \gamma_j + \mu_t + \epsilon_{i,t} \quad (2)$$

Table 3 presents the result. Columns (1) and (2) are based on MSCI KLD's rating data, and columns (3) and (4) are based on Refinitiv's rating data. Columns (1) and (3) do not consider the initial level tercile indicator, whereas columns (2) and (4) do. The estimated coefficients on the *CSR gap* are all positive and statistically significant. It implies that the bigger the CSR score gap is between the CEO's home firm and his or her outside directorship firms, the greater the subsequent change in CSR score at the CEO's home firm, indicating the existence of relative influence. In the robustness section, we specifically focus on the observations whose CSR score gaps (both for positive and negative directions) are sufficiently large (measured as the difference by more than one standard deviation of $Primary\ CSR_{i,t}$) and observe that those sufficiently large gaps also provide statistically and economically significant explanatory power, consistent with our argument.

Overall, the results in Table 3 suggest that the executive experiences from other boards significantly alter the CSR quality of their home firms, and the effect depends on the CSR quality gap between their home firms and directorship firms. This result bolsters our argument that outside directorship experiences, or the director labor market in general, function as a conduit for CSR experiences where interrelated firms can be affected by each other.

4. Endogeneity alleviation

We acknowledge that our baseline results are not immune to endogeneity concerns. For example, some omitted variables that affect both the CEO outside directorship's CSR quality and the CEO's home firm's CSR quality may drive the results. Also, there is a self-selection bias such

that the decision to hold an outside directorship is not random for CEOs (and their firms). We use several approaches to alleviate each of the concerns.[12]

4.1. Omitted variable bias: Difference-in-differences analysis

Some omitted variables can influence both the CEO outside directorship's CSR quality and the CEO's home firm's CSR quality, making the observed relation suspicious. To exploit a difference-in-differences setup, we define a dramatic change in CEO outside directorship CSR score as the event. We define the positive (negative) event as the top decile of the positive (negative) outside directorship CSR score changes from the previous year. Specifically, we define cases where the difference between CEO's directorship CSR score at year *t* and year *t*-1 is greater (less) than 0.93 (-0.85) as the positive (negative) event. We then set the three-year event window [*t*-1 *t* *t*+1] where *t*-1 is the pre-event year, *t* is the event year, and *t*+1 is the post-event year. Thus, the firms whose CEOs experienced positive or negative events from year *t*-1 to *t* are selected as the treated firms. The non-treated firms become the candidates for the control firms.

We subsequently apply the following filters to the candidate firms to match the control firms. First, the control firms' CSR scores in year *t*-1 are within the same decile as the treated firms, and the control firms share the same event window with the treated firms from year *t*-1 to *t*+1. Second, the size of the control firms, measured by total assets, is within the range between 75% and 125% of the treated firms' total assets. Third, control firms are within the same Fama–French 49-industry classification as the treated firms. For cases of overlapping windows where certain firm-year observation is both one window's post-event year and another window's pre-event year, we only pick the former because it provides a relatively cleaner interpretation. We acknowledge that this estimation cannot completely resolve the omitted variable bias concerns.

[12] Due to the limited US firm coverage of Refinitiv, we will focus on the results using MSCI KLD data throughout the remaining sections to secure broader coverage of S&P 1500 firms.

However, our difference-in-differences estimation can alleviate the concerns as the events (i.e., the dramatic score changes in outside directorships) we consider are relatively less likely to be endogenous (Kim et al., 2019). Moreover, CEOs mostly hold outside directorships in different industries (Fahlenbrach et al., 2010). Thus, the events we consider are less likely to be from shocks that simultaneously affect both the appointing and appointee firms, further bolstering the exogeneity of the event. We estimate the difference-in-differences specification as below:

$$Primary\ CSR_{i,t} = \beta_0 + \beta_1 Post_t + \beta_2 Treated\ firm_i + \beta_3 Post \times Treated\ firm_{i,t} + \beta_4 Controls_{i,t-1} + \gamma_i\ (\gamma_j) + \mu_t + \epsilon_{i,t} \qquad (3)$$

Panels A to D of Table 4 present the regression results using dramatic positive changes in the CEO's directorship firm's CSR score. Panel A is the most general result where control firms are matched only by the first filter (i.e., CSR level and event window). In Panels B and C, we additionally match control firms by the second filter (i.e., CSR level, event window, and size) and by the third filter (i.e., CSR level, event window, and industry. As we apply more filters, matching becomes more difficult, and we lose many observations. For this reason, in Panel D, we match control firms by all four filters (i.e., CSR level, event window, size, and industry). However, when matching by industry, we match by the same Fama–French 38-industry classification instead of the same Fama-French 49-industry classification. In column (1), we include *Post*, *Treated firm*, *Post*×*Treated firm*, year, and industry fixed effects in the regression. We find that the coefficient on *Post*×*Treated firm* is positive and statistically significant, implying that a (treated) firm's CSR score is increased more following dramatic positive changes in CEO's directorship firm's CSR quality. In column (2), we add firm fixed effects instead of industry fixed effects, and the result is consistent with that of column (1). In columns (3) and (4), we additionally control for a list of firm and CEO controls and continue to find that most of the coefficient estimates on the variable

Post×*Treated firm* are positive and statistically significant, which qualitatively confirms our baseline results in previous analyses.[13]

However, as in Panel E, we do not observe a significantly more decrease in the home firm's CSR score following dramatic negative changes in the CEO's directorship firm's CSR score.[14] It can be due to two reasons. First, econometrically, it might be because the magnitude of the decile of negative outside directorship CSR score change (-0.85) is not large enough compared to the decile of positive outside directorship CSR score change (0.93). Second, anecdotally, this asymmetry can be explained contingent on the visibility of the CSR issue. Literature has shown that external stakeholders such as media, institutional investors, analysts, and product market peers affect firms' CSR activities (e.g., Jo and Harjoto, 2011; Borghesi et al., 2014; Cao et al., 2019; Dyck et al., 2019; Chen et al., 2020). The directional links are primarily (but not exclusively) positive. CEOs who hold outside directorships may also observe external stakeholders' influence on their outside board's CSR, experiencing incremental exposure to positive CSR issues. Thus, the firm policies related to negative directional changes of CSR are less likely to be visible to them compared to the firm policies related to positive directional changes of CSR, explaining why the statistical significance of the difference-in-differences estimation is weaker than that of the dramatic positive changes in the CEO's directorship firm's CSR score. Overall, the results of the difference-in-differences regressions bolster our previous main findings, at least partially.

4.3. Self-selection bias: Heckman two-step sample selection model

A CEO's or firm's decision to let its CEO hold an outside directorship may not be random, and this non-randomness can cause a self-selection bias. To alleviate this concern, we employ a

[13] By slightly loosening the matching condition of the firm size from 75%-125% to 70%-130% to secure sample size (and statistical power), we were able to produce a consistent result with column (4) of Panel D, which is the most stringent match and rigorous estimation model, using Refinitiv rating data.
[14] For brevity, we provide the most stringent matching, Panel E (analogous to Panel D), for negative dramatic events.

Heckman two-step sample selection model. In the first stage, we estimate a probit model for CEO's decision to hold an outside directorship. The dependent variable is the indicator variable that equals one if a CEO holds at least one outside directorship in a given year and zero otherwise. On the right-hand side of the probit model, the one-year lagged CSR score of the CEO's home firm, one-year lagged control variables described in Section 2.4, year dummies, and industry dummies are included. We compute the inverse Mills ratio (IMR henceforth) from the first stage probit model and include it as an additional explanatory variable in the second stage OLS estimation to control for the potential endogenous selection bias. The second stage OLS estimation is equivalent to equation (2) in Section 3.2, which measures the impact of a relative CSR difference between a CEO's outside directorship firm and his or her home firm on the subsequent change in CSR score of his or her home.

Table 5 reports the results. Column (1) shows the first stage regression result. Columns (2) and (3) show the second stage regression result without and with the initial tercile CSR level indicator described in Section 3.2, respectively. The estimated coefficient on IMR is positive and insignificant, alleviating the sample selection bias issue to some extent. We continue to document that the estimated coefficient on the *CSR gap* remains significantly positive. Also, the magnitudes of the coefficients are similar to those reported in Table 3. Overall, the results are consistent with our main finding that the greater the relative difference between the CSR scores of outside directorship firms and the CEOs' home firms, the greater the subsequent change in the CEOs' home firms' CSR scores, bolstering the evidence of propagation.[15]

[15] Repeating the Heckman two-step sample selection analysis using Refinitiv rating data provides qualitatively similar results, except that the estimated coefficient of the inverse Mills ratio of the second stage OLS regression is positive but statistically significant. However, even after controlling for the selection bias, we continue to document that the estimated coefficient on the *CSR gap* remains significantly positive.

5. Further analyses

5.1. Subcategorization analysis

Our main analyses show that, on average, a CEO's outside directorship experience brings about a more positive (negative) change in his or her home firm's CSR score if the directorship firm's CSR score is relatively higher (lower) than that of the CEO's home firm. Thus far, we have treated all components of CSR equally. However, some dimensions of CSR could be more readily transferable than others, suggesting a potential mechanism for CEO's CSR propagation. Due to potential concerns about interlocking directors on the boards of competitor firms or the incentives arising from competition to avoid revealing corporate policies to their rival firms, executives are likely to hold board positions from firms in different industries.[16] These concerns can be more serious if a focal firm's director is the CEO of another firm. Fahlenbrach et al. (2010) show that only 13% of CEO outside directors hold outside board seats in the same industry. Thus, we expect that CSR dimensions less likely to be heterogeneous across different industries are more likely to be propagated through the director labor market.

To further study whether certain CSR components are more diffusible through the director labor market, we decompose our CSR measure and separately examine the effect of CEO outside directorship experience on each dimension of CSR. We first decompose CSR into environmental and social (incorporating employee, product, community, diversity, and human rights categories) dimensions. Then, we further decompose the social dimension into each of the five components of CSR activities of the CEO home firms. The dependent variable is the one-year leading score change for each CSR dimension. The main explanatory and control variables are equivalent to those from Table 3.

[16] For example, Masulis and Mobbs (2023) show that 8.4% (2.8%) of independent directors on multiple boards within the S&P 1500 firms serve on two boards in the same Fama-French-48 (SIC-4) industry.

The results are reported in Table 6. In a broad sense, CEO's home firm's environment scores do not change significantly, whereas social scores do change significantly. Employee and community scores do not change significantly among the social category, whereas product, diversity, and human rights scores do change significantly. Different industries should have highly varying perspectives regarding environment-related issues. For example, firms within the oil and gas industry might be more considerate of environmental issues than firms within the financial industry. In contrast, social issues are related to relatively more fundamental and general issues, so we can expect smoother propagation.

Among social categories, community-related knowledge, and mindset are relatively more difficult to be propagated across different industries as industries that are more likely to be locally based, such as retail, are more likely to take care of the communal issues seriously than industries that cover a wider base, such as manufacturing.[17] Lastly, KLD's employee dimensions not only cover relatively intuitive and general issues such as employee health and safety concerns, stock ownership, and retirement benefits but also cover relatively difficult and heterogeneous issues like union relations, workforce reductions, and issues related to sourcing. Thus, the diffusion mechanism should be more nuanced than it seems. These heterogeneities across industries, coupled with the fact that CEOs mostly hold serve on other boards outside of their focal firms' industries, can explain the insignificant propagation regarding environment, employee, and community policies. In contrast, policies related to diversity, product, and human rights are comparably less likely to be heterogeneous across different industries, making the propagation easier.[18]

[17] KLD's community dimensions focus on issues such as investment (lending) practices, impact on the community, tax disputes, charitable giving, innovative giving, support for housing, and education.

[18] Some might argue that policies related to the product may also differ significantly across different industries, making CEOs' learning through their outside directorship experience difficult. However, the MSCI KLD product dimension

In sum. the subcategorization analyses of different CSR components provide a more detailed idea of which knowledge is more readily propagative, providing implications to firm executives interested in specific firm policies that director labor market can function as a conduit for knowledge dissemination.[19]

5.2. Strengths and concerns of CSR

In this section, we further raise the question regarding the mechanism of CSR learning. More specifically, we ask whether CEOs who work at outside directorship firms whose CSR scores are relatively higher than their home firms focus more on enhancing the positive (i.e., strengths) aspects of CSR or more on diminishing the negative (i.e., concerns) aspects of CSR. Similarly, we ask whether CEOs who work in outside directorship firms whose CSR scores are relatively lower than their home firms are more affected by policies that aggravate the negative aspects of CSR or more by policies that reduce the positive aspects of CSR. To answer these questions, we repeat our main regression from Section 3.2 by decomposing the CSR score into strengths and concerns. More precisely, the dependent variable is either the one-year leading change in the sum of the six dimensions' proportional strength scores or the one-year leading change in the sum of the six dimensions' proportional concern scores.[20] The main explanatory variables and control variables are equivalent to those from Table 3.

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categories measure not only the product characteristics (e.g., safety, sort, and quality) but also the legal, regulatory, and advertising/marketing aspects, making the diffusion of knowledge feasible across different but similar industries. At the same time, even in cases where direct learning from directorship firms' operations is not feasible, there still exists room for CEO-directors to be equipped with CSR-friendly mindsets, such as customers' health, integrity, and data privacy, in their product responsibilities from the interaction and sharing of information with other directors.

[19] Repeating the analyses of Table 6 column (2) using the proprietary aggregate environmental and social ratings of Refinitiv produces consistent results such that propagation exists in the social dimension but not the environmental dimension.

[20] Concern scores maintain the negative sign. For example, if firm X in year *t* scored two in a CSR dimension *k* out of five available concern indicators, the proportional concern score of CSR dimension *k* for firm X in year *t* is coded as -0.4, not 0.4.

Table 7 shows the result. We find that if the directorship CSR score is relatively higher (lower) than that of the CEO's home firm, then the home firm reacts by both committing more (less) to positive CSR policies and committing less (more) to negative CSR policies. In other words, CEOs both strengthen the positive aspects of CSR and reduce the negative aspects of CSR through CSR propagation. However, comparing panels A and B, the effect of the former is more manifest than the latter. For negative directional changes, a certain level of noncompliance with CSR codes and standards can be costly compared to halting a positive CSR program. For positive directional changes, as external stakeholders such as institutional investors and analysts increasingly incorporate CSR or ESG issues when they make decisions, CEOs who serve on outside boards could be more likely to experience incremental exposure to positive CSR issues, ending up concerning themselves with positive CSR policies than moderating negative CSR policies.[21]

6. Robustness

6.1. Exogenous CEO turnover

Section 3.2 showed that a CEO's home firm's CSR score is positively associated with his or her directorship firm's CSR score. However, some might argue that the baseline result might have been derived from the persistence of the CEO's directorship firms (and their corresponding CSR scores) or that his or her home firm's CSR decision could already have been determined by the firm, not by its CEO's experience. We limit our baseline result to observations around plausibly exogenous CEO turnovers to alleviate these concerns. If our baseline results have sufficient explanatory power, we should observe a consistent positive association around the exogenous CEO turnovers. This is because these turnovers are relatively sudden events where firms may be less

[21] See, for example, https://www.unpri.org/about-us/about-the-pri, which demonstrates many asset owners, investment managers, and service providers agreeing to incorporate ESG issues into investment practice.

likely to have planned and have less discretionary power to hire someone consistent with their policies. Also, the new CEOs should likely have very different outside directorship experiences with heterogeneous CSR quality. Thus, these changes are less likely to be endogenous. We used the CEO dismissal database from Gentry et al. (2021) to capture the cases of CEO turnover throughout our sample period.[22] Then, we re-estimated the results of Table 2.

Table 8 provides the result. Column (1) includes the three-year turnover window (i.e., [*t*-1, *t*+1]) excluding the turnover year *t*. Column (2) includes the five-year turnover window (i.e., [*t*-2, *t*+2]) excluding the turnover year *t*. For both specifications, a firm fixed effect is added. The results show that the positive association in the baseline results remains around plausibly exogenous CEO turnovers, alleviating the concerns of potential alternative explanations other than CEO learning through the director labor market propagation.

6.2. Alternative specification: More significant relative influence

Section 3.2 showed that the bigger the CSR score gap between CEO's home firm and his or her outside directorship firm, the greater the subsequent change in CSR score at the CEO's home firm, indicating the existence of relative influence. In this section, we complement this result by constructing an indicator variable *1 SD Higher (Lower) CSR Directorship* that equals one if the *Directorship CSR Score* is greater (less) than *Primary CSR Score* by one standard deviation of *Primary CSR Score* and zero otherwise. The rationale is to exclude less meaningful cases where the *Directorship CSR Score* and *Primary CSR Score* are too close to each other. They also provide a more intuitive directional interpretation because we can capture the effects of both sufficiently

[22] We thank Gentry et al. (2021) for publicly sharing the CEO dismissal database. The database categorizes different reasons for CEO dismissal using different code numbers. To capture the plausibly exogenous CEO turnovers, we only focus on the following codes: 1 (Involuntary - CEO death), 2 (Involuntary - CEO illness), and 5 (Voluntary - CEO retired; The departure did not sound forced and turnover was more valedictory than critical). For code 5, as some voluntary dismissals can be firings, we only include dismissal observations that happen when the CEO is 63 or older, following the method of Fee et al. (2013).

high CSR score directorship experience and sufficiently low CSR score directorship experience. Consistent with that of the CEO, we also create *1 SD Higher (Lower) CSR Board* that equals one if the *Board CSR Score* is greater (less) than *Primary CSR Score* by one standard deviation of *Primary CSR Score* and zero otherwise. The other regression specifications are consistent with those from Table 3.

Table 9 presents the result. In general, the sign and magnitude of the CEO and board directorship exposure variables are consistent with our previous results. If one holds a directorship whose CSR quality is sufficiently higher (lower) than that of the home firm, the experience provides a more positive (negative) change in the home firm's CSR quality.

6.3. Alternative scoring measures for multiple directorships

We examine alternative tests to determine whether our baseline results hold using alternative scoring measures when CEOs hold more than one directorship. Previously, our measure was based on a weighted average using each firm's market capitalization as weight. However, the exact learning mechanism can be heterogeneous across different CEOs, especially with respect to CSR. We consider three alternative scoring measures in our regressions to alleviate this concern. First, we take a simple average (Average) because some CEOs may equally value each of the CSR experiences. Second, we consider the maximum score among different CSR experiences (Max) because the most extreme experience can dominate the rest. Finally, we consider the firm's score with the maximum market capitalization (Size) because some CEOs may fully allocate their attention to the most prestigious directorship. Using these alternative scoring measures provides qualitatively similar results to those in Table 2.[23]

[23] For brevity, the corresponding results can be provided upon request.

7. Conclusion

This paper examines the directional effect of CEO outside directorship experiences on their home firm's CSR policies. We find that the director labor market functions as a conduit for CSR propagation by showing that the CSR scores of executives' home firms are associated with those of their outside directorship firms and that the CSR score changes are more significant if the directorship firms' CSR scores are relatively different from those of executives' home firms. Moreover, employee, diversity, product, and human rights dimensions are more readily propagated to other firms due to their relatively low heterogeneity across different industries. These findings are robust to using alternative specifications with indicator variables, limiting observations around plausibly exogenous CEO turnovers, and using alternative scoring metrics for CEOs holding multiple directorships. Several tests were conducted to alleviate the endogeneity concerns, including reverse causality regressions, difference-in-differences estimation, and the Heckman two-step selection method.

Our study is consistent with recent literature documenting the firm leadership determinants of CSR. We also contribute to the literature on the role of executives' experiences, especially in their home firms' corporate policy changes. Finally, we add to the literature on different firm policies subject to contagion (or propagation) across firms. Our results have important managerial implications. Executives are influenced by their experiences in other directorships, which can have positive or negative CSR implications for their home firms. Thus, it is essential to be aware of these external forces. As CSR trends can be propagated through practices that get observed, future research could explore more on discovering other potential external channels of corporate executives' CSR learning.

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Table 1. Summary statistics

This table provides the summary statistics for key variables. Variable definitions are provided in the Appendix.

VARIABLES	(1) N	(2) mean	(3) sd	(4) p1	(5) p25	(6) p50	(7) p75	(8) p99
Panel A: CSR scores								
MSCI KLD								
Primary CSR Score	20,076	0.00416	0.545	-1.252	-0.333	0	0.226	1.738
$\triangle_1$ Primary CSR Score	20,076	0.0331	0.367	-0.986	-0.0833	0	0.133	1.198
Directorship CSR Score	20,076	0.0173	0.311	-0.918	0	0	0	1.329
Board CSR Score	20,076	0.0116	0.148	-0.356	-0.0510	0	0.0599	0.484
CSR gap	20,076	0.046	0.568	-1.680	-0.200	0	0.333	1.556
Board CSR gap	20,076	0.040	0.497	-1.477	-0.183	0.0238	0.333	1.263
Refinitiv								
Primary CSR Score	9,904	0.502	0.288	0.0874	0.226	0.468	0.792	0.954
$\triangle_1$ Primary CSR Score	9,773	0.0318	0.106	-0.206	-0.0189	0.0153	0.0659	0.404
Directorship CSR Score	9,904	0.354	0.223	0.144	0.250	0.250	0.250	0.948
Board CSR Score	9,904	0.353	0.108	0.219	0.250	0.330	0.414	0.674
CSR gap	9,773	-0.120	0.305	-0.704	-0.344	-0.0445	0.0876	0.641
Board CSR gap	9,773	-0.121	0.251	-0.630	-0.336	-0.0801	0.0955	0.302
Panel B: Firm characteristics								
Leverage	20,076	0.224	0.184	0	0.0735	0.209	0.332	0.744
ROA	20,076	0.150	0.108	-0.0481	0.0856	0.137	0.200	0.494
R&D/Assets	20,076	0.0230	0.0452	0	0	0	0.0261	0.195
Adv/Assets	20,076	0.0119	0.0338	0	0	0	0.00675	0.155
Capital expenditure/Sales	20,076	0.0752	0.160	0	0.0192	0.0350	0.0675	0.760
Percent tangible assets	20,076	81.18	19.41	25.47	69.61	87.65	97.70	100
Operating Cash Flow	20,076	0.114	0.0901	-0.0732	0.0589	0.103	0.157	0.389
Market-to-book ratio	20,076	3.530	47.15	-5.793	1.493	2.262	3.651	23.76
Log(Assets)	20,076	8.149	1.653	5.061	6.922	8.001	9.182	12.65
Annual Stock Return	20,076	0.141	0.418	-0.690	-0.0917	0.110	0.323	1.498
Volatility	20,076	0.327	0.182	0.0978	0.206	0.286	0.397	0.993
Institutional ownership ratio	20,076	0.762	0.190	0.0257	0.661	0.796	0.904	1
Panel C: CEO and Board characteristics								
Percent independent directors	20,076	0.753	0.140	0.333	0.667	0.778	0.875	0.923
CEO outside directorship (0/1)	20,076	0.273	0.445	0	0	0	1	1
CEO female	20,076	0.0292	0.168	0	0	0	0	1
CEO age	20,076	56.62	7.147	41	52	57	61	76
CEO tenure	20,076	10.35	9.227	0	4	8	14	41
1 SD Higher CSR Directorship	20,076	0.0600	0.226	0	0	0	0	1
1 SD Lower CSR Directorship	20,076	0.0556	0.221	0	0	0	0	1
1 SD Higher CSR Board	20,076	0.1381	0.300	0	0	0	0	1
1 SD Lower CSR Board	20,076	0.1024	0.341	0	0	0	0	1

Table 2. Association

This table presents the results of regressions of primary firm's CSR score on its CEO and board's outside directorship firm's CSR score. Columns (1) and (2) are based on MSCI KLD's rating data and columns (3) and (4) are based on Refinitiv's rating data *Directorship CSR Score* and *Board CSR Score* are constructed analogously for each CEO's outside directorship firms and board members' directorship firms, respectively. All control variables are lagged by one year. The other variable definitions are provided in the Appendix. Standard errors are reported within parentheses and are corrected for clustering at the firm level. Significance levels are *** p < 0,01, ** p < 0.05, and * p < 0.1.

	MSCI KLD		Refinitiv	
	(1)	(2)	(3)	(4)
VARIABLES	Primary CSR	Primary CSR	Primary CSR	Primary CSR
Directorship CSR score	0.052**	0.035*	0.098***	0.023*
	(0.021)	(0.019)	(0.018)	(0.014)
Board CSR score	0.440***	0.279***	0.438***	-0.014
	(0.050)	(0.046)	(0.049)	(0.043)
Leverage	-0.090**	0.086*	-0.060**	0.035
	(0.044)	(0.048)	(0.025)	(0.029)
ROA	0.128	-0.008	0.248***	0.086**
	(0.088)	(0.077)	(0.058)	(0.037)
R&D/Assets	1.025***	-0.149	0.466***	0.061
	(0.232)	(0.224)	(0.162)	(0.120)
Adv/Assets	0.522**	-0.131	0.197	0.420
	(0.208)	(0.282)	(0.182)	(0.294)
Capital expenditure/Sales	0.137**	0.155*	-0.067***	-0.011
	(0.055)	(0.083)	(0.021)	(0.021)
Percent tangible assets	0.001	0.001**	0.001***	0.000
	(0.000)	(0.001)	(0.000)	(0.000)
Operating Cash Flow	0.295***	0.008	-0.009	0.005
	(0.090)	(0.065)	(0.070)	(0.038)
Market-to-book ratio	0.000	0.000	0.000*	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Log(Assets)	0.069***	0.011	0.105***	0.047***
	(0.008)	(0.018)	(0.004)	(0.010)
Annual Stock Return	-0.024***	-0.014**	-0.005	0.005
	(0.008)	(0.007)	(0.005)	(0.004)
Volatility	-0.104***	-0.042	-0.114***	-0.036**
	(0.033)	(0.026)	(0.025)	(0.015)
Percent independent directors	0.222***	-0.001	0.208***	-0.020
	(0.054)	(0.056)	(0.037)	(0.035)
CEO age	-0.001	-0.000	0.000	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)
CEO tenure	-0.001	-0.001	-0.001*	0.000
	(0.001)	(0.001)	(0.001)	(0.001)
CEO female	0.259***	0.074	0.002	-0.007
	(0.041)	(0.048)	(0.019)	(0.023)
Institutional ownership ratio	-0.034	0.012	-0.033	0.009
	(0.047)	(0.053)	(0.025)	(0.020)
Constant	-0.710***	-0.203	-0.823***	0.067
	(0.100)	(0.195)	(0.065)	(0.118)
Observations	20,076	19,886	9,904	9,758
Adjusted R-squared	0.247	0.523	0.559	0.832
Year FE	YES	YES	YES	YES
Industry FE	YES	NO	YES	NO
Firm FE	NO	YES	NO	YES

Table 3. Relative influence

This table presents the results of regressions of primary firm's CSR score change on the CSR score gap between the primary firm and its CEO and board's outside directorship firms. Columns (1) and (2) used MSCI KLD's rating data and columns (3) and (4) used Refinitiv's rating data. $\triangle_1$ is the one-year change from t-1 to t. (*Board*) *CSR gap* is defined as *Directorship (Board) CSR Score* minus *Primary CSR Score*. All control variables are lagged by one year. Other variable definitions are provided in the Appendix. Standard errors are reported within parentheses and are corrected for clustering at the firm level. Significance levels are *** p < 0,01, ** p < 0.05, and * p < 0.1.

	MSCI KLD		Refinitiv	
	(1)	(2)	(3)	(4)
VARIABLES	$\triangle_1$ Primary CSR	$\triangle_1$ Primary CSR	$\triangle_1$ Primary CSR	$\triangle_1$ Primary CSR
CSR gap	0.029***	0.027***	0.014***	0.010**
	(0.008)	(0.008)	(0.004)	(0.005)
Board CSR gap	0.221***	0.211***	0.125***	0.088***
	(0.011)	(0.013)	(0.007)	(0.010)
Leverage	-0.027	-0.027	-0.013**	-0.011*
	(0.020)	(0.020)	(0.006)	(0.006)
ROA	0.088**	0.087**	0.019	0.025
	(0.035)	(0.035)	(0.019)	(0.019)
R&D/Assets	0.316***	0.306***	0.058*	0.063*
	(0.070)	(0.070)	(0.032)	(0.033)
Adv/Assets	0.143**	0.136**	0.015	0.032
	(0.063)	(0.063)	(0.047)	(0.047)
Capital expenditure/Sales	0.059***	0.059***	-0.005	-0.007
	(0.019)	(0.019)	(0.005)	(0.005)
Percent tangible assets	0.000*	0.000*	0.000	0.000*
	(0.000)	(0.000)	(0.000)	(0.000)
Operating Cash Flow	0.041	0.041	0.005	0.003
	(0.041)	(0.041)	(0.024)	(0.024)
Market-to-book ratio	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Log(Assets)	0.022***	0.021***	0.009***	0.012***
	(0.002)	(0.002)	(0.001)	(0.001)
Annual Stock Return	-0.015**	-0.015**	0.006**	0.007**
	(0.006)	(0.006)	(0.003)	(0.003)
Volatility	-0.034**	-0.034**	-0.027**	-0.027**
	(0.016)	(0.016)	(0.011)	(0.011)
Percent independent directors	0.063***	0.063***	0.023**	0.027***
	(0.019)	(0.019)	(0.009)	(0.009)
CEO age	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
CEO tenure	-0.001*	-0.001**	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
CEO female	0.046***	0.045***	-0.001	-0.000
	(0.014)	(0.014)	(0.005)	(0.005)
Institutional ownership ratio	-0.000	0.000	0.014**	0.009
	(0.016)	(0.016)	(0.005)	(0.005)
Bottom tercile indicator		0.026***		-0.012***
		(0.007)		(0.004)
Top tercile indicator		0.008		-0.041***
		(0.007)		(0.004)
Constant	-0.226***	-0.229***	-0.056***	-0.066***
	(0.032)	(0.032)	(0.016)	(0.017)
Observations	20,076	20,076	9,773	9,773
Adjusted R-squared	0.193	0.194	0.124	0.137
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES

Table 4. Difference-in-differences estimation

This table presents the results of difference-in-differences regressions. *Event* is defined as the top decile of the positive outside directorship CSR score changes from the previous year. Event window covers three years: pre-event year, event-year, and post-event year. *Post* is an indicator variable that is one if it is either event-year or post-event year, and zero otherwise. *Treated firm* is an indicator variable that is one if a firm's CEO experienced a significantly positive CSR score change in his or her outside directorship's CSR score, and zero otherwise. Panel A matches control firms by CSR score level decile and event window. Panel B matches control firms by CSR score level decile, event window, and firm size. Panel C matches control firms by CSR score level decile, event window, and industry (Fama-French 49-industry classification). Panel D matches control firms by CSR score level decile, event window, firm size, and industry (Fama-French 38-industry classification). Panel E is an analogous table to Panel D where *Event* is defined as the top decile of the negative outside directorship CSR score changes from the previous year and *Treated firm* is an indicator variable that is one if a firm's CEO experienced a significantly negative CSR score change in his or her outside directorship's CSR score, and zero otherwise. All control variables are lagged by one year. The other variable definitions are provided in the Appendix. Standard errors are reported within parentheses and are corrected for clustering at the firm level. Significance levels are *** p < 0,01, ** p < 0.05, and * p < 0.1.

Panel A: Match by Year, Decile				
	(1)	(2)	(3)	(4)
VARIABLES	Primary CSR	Primary CSR	Primary CSR	Primary CSR
Post	0.014**	-0.028***	-0.031***	-0.036***
	(0.007)	(0.007)	(0.008)	(0.008)
Treated firm	0.076		-0.003	
	(0.057)		(0.062)	
Post×Treated firm	0.141***	0.151***	0.110**	0.122***
	(0.044)	(0.043)	(0.043)	(0.044)
Constant	-0.082***	-0.052***	-0.677***	-0.453**
	(0.008)	(0.004)	(0.104)	(0.216)
Observations	10,632	10,632	8,983	8,924
Adjusted R-squared	0.134	0.557	0.187	0.556
Controls	NO	NO	YES	YES
Year FE	YES	YES	YES	YES
Industry FE	YES	NO	YES	NO
Firm FE	NO	YES	NO	YES

Panel B: Match by Year, Decile, and Size				
	(1)	(2)	(3)	(4)
VARIABLES	Primary CSR	Primary CSR	Primary CSR	Primary CSR
Post	-0.023	-0.069***	-0.035**	-0.066***
	(0.015)	(0.014)	(0.016)	(0.015)
Treated firm	0.114**		-0.018	
	(0.048)		(0.051)	
Post×Treated firm	0.087**	0.088**	0.040	0.067*
	(0.038)	(0.037)	(0.038)	(0.037)
Constant	-0.008	0.037***	-1.322***	-0.569
	(0.019)	(0.009)	(0.187)	(0.571)
Observations	4,572	4,572	4,228	4,213
Adjusted R-squared	0.193	0.625	0.301	0.631
Controls	NO	NO	YES	YES
Year FE	YES	YES	YES	YES
Industry FE	YES	NO	YES	NO
Firm FE	NO	YES	NO	YES

Panel C: Match by Year, Decile, and Industry (Fama-French 49)				
	(1)	(2)	(3)	(4)
VARIABLES	Primary CSR	Primary CSR	Primary CSR	Primary CSR
Post	-0.097***	-0.095***	-0.096***	-0.091***
	(0.020)	(0.018)	(0.019)	(0.019)
Treated firm	0.075		-0.015	
	(0.048)		(0.053)	
Post×Treated firm	0.116***	0.105***	0.049	0.067*
	(0.039)	(0.038)	(0.039)	(0.038)
Constant	0.058***	0.072***	-0.716***	-0.764
	(0.021)	(0.012)	(0.203)	(0.788)
Observations	2,859	2,859	2,667	2,658
Adjusted R-squared	0.325	0.677	0.397	0.687
Controls	NO	NO	YES	YES
Year FE	YES	YES	YES	YES
Industry FE	YES	NO	YES	NO
Firm FE	NO	YES	NO	YES

Panel D: Match by Year, Decile, Size, and Industry (Fama-French 38)				
	(1)	(2)	(3)	(4)
VARIABLES	Primary CSR	Primary CSR	Primary CSR	Primary CSR
Post	-0.190***	-0.199***	-0.225***	-0.194***
	(0.041)	(0.043)	(0.044)	(0.045)
Treated firm	0.062		-0.054	
	(0.085)		(0.092)	
Post×Treated firm	0.176***	0.166***	0.162**	0.134**
	(0.067)	(0.063)	(0.069)	(0.057)
Constant	0.184***	0.213***	-1.924***	-0.215
	(0.054)	(0.023)	(0.513)	(1.188)
Observations	773	773	731	729
Adjusted R-squared	0.305	0.779	0.405	0.797
Controls	NO	NO	YES	YES
Year FE	YES	YES	YES	YES
Industry FE	YES	NO	YES	NO
Firm FE	NO	YES	NO	YES

Panel E: Dramatic negative score change: Match by Year, Decile, Size, and Industry				
	(1)	(2)	(3)	(4)
VARIABLES	Primary CSR	Primary CSR	Primary CSR	Primary CSR
Post	-0.154***	-0.159***	-0.105**	-0.169***
	(0.051)	(0.058)	(0.051)	(0.059)
Treated firm	0.104		0.031	
	(0.073)		(0.076)	
Post×Treated firm	0.013	-0.019	0.021	-0.009
	(0.060)	(0.058)	(0.065)	(0.063)
Constant	0.343***	0.393***	-1.578***	0.233
	(0.042)	(0.035)	(0.426)	(1.564)
Observations	735	735	686	683
Adjusted R-squared	0.395	0.733	0.471	0.723
Controls	NO	NO	YES	YES
Year FE	YES	YES	YES	YES
Industry FE	YES	NO	YES	NO
Firm FE	NO	YES	NO	YES

Table 5. Heckman two-step sample selection model

This table presents the results of Heckman two-step sample selection model. Column (1) is the first-stage probit model with a dummy variable *Outside Directorship (0/1)* that equals one if a CEO holds at least one outside directorship in a given year, and zero otherwise. Columns (2) and (3) are the second-stage OLS regressions equivalent to the Table 3 in Section 3.2. The inverse Mills ratio is computed from the first stage and included in the second stage model. All control variables are lagged by one year. The other variable definitions are provided in the Appendix. Standard errors are reported within parentheses and are corrected for clustering at the firm level. Significance levels are *** p < 0,01, ** p < 0.05, and * p < 0.1.

	(1)	(2)	(3)
VARIABLES	CEO Outside Directorship (0/1)	$\triangle_1$ Primary CSR	$\triangle_1$ Primary CSR
CSR gap		0.028***	0.027***
		(0.008)	(0.008)
Board CSR gap		0.214***	0.208***
		(0.013)	(0.014)
Leverage	-0.132	-0.037*	-0.034
	(0.151)	(0.021)	(0.021)
ROA	-0.003	0.086**	0.085**
	(0.259)	(0.035)	(0.035)
R&D/Assets	0.627	0.358***	0.333***
	(0.658)	(0.082)	(0.082)
Adv/Assets	1.819***	0.264**	0.216*
	(0.700)	(0.130)	(0.129)
Capital expenditure/Sales	-0.179	0.046**	0.050**
	(0.207)	(0.022)	(0.022)
Percent tangible assets	-0.002	0.000	0.000
	(0.001)	(0.000)	(0.000)
Operating Cash Flow	0.001	0.041	0.041
	(0.279)	(0.041)	(0.041)
Market-to-book ratio	-0.001**	-0.000	-0.000
	(0.000)	(0.000)	(0.000)
Log(Assets)	0.221***	0.037***	0.031**
	(0.018)	(0.014)	(0.014)
Annual Stock Return	0.015	-0.013**	-0.014**
	(0.024)	(0.006)	(0.006)
Volatility	-0.266***	-0.053**	-0.047**
	(0.097)	(0.023)	(0.023)
Percent independent directors	1.291***	0.152*	0.122
	(0.169)	(0.084)	(0.083)
CEO age	-0.003	-0.001**	-0.001**
	(0.003)	(0.000)	(0.000)
CEO tenure	0.002	0.000	-0.000
	(0.003)	(0.000)	(0.000)
CEO female	0.628***	0.087**	0.072*
	(0.127)	(0.042)	(0.042)
Institutional ownership ratio	0.269**	0.020	0.014
	(0.127)	(0.024)	(0.024)
Primary CSR Score	0.116***		
	(0.036)		
Inverse Mills Ratio		0.092	0.060
		(0.083)	(0.083)
Constant	-1.935***	-0.576***	-0.508**
	(0.617)	(0.205)	(0.204)
Observations	20,079	20,073	20,073
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
Pseudo/Adjusted R-squared	0.130	0.193	0.194
Tercile Indicator	NO	NO	YES

Table 6. Subcategorization analysis

This table presents the results of regressions of each of primary firm's CSR dimension score change on the relative CSR score difference between CEO's directorship firm's CSR score and his or her primary firm's CSR score. $\triangle_1$ is the one-year change from t-1 to t. Panel A provides Environment dimension's score change and Panel B provides Social dimension's score change. Panel C to Panel G further decomposes social dimension into Employee, Product, Community, Diversity, and Human Rights and provide respective score changes. *CSR gap* is defined as *Directorship CSR Score* minus *Primary CSR Score*. *Board CSR gap* is defined as *Board CSR score* minus *Primary CSR score*. All control variables are lagged by one year. The other variable definitions are provided in the Appendix. Standard errors are reported within parentheses and are corrected for clustering at the firm level. Significance levels are *** p < 0,01, ** p < 0.05, and * p < 0.1.

Panel A: Environment		
	(1)	(2)
VARIABLES	$\triangle_1$ Primary ENV	$\triangle_1$ Primary ENV
CSR gap	0.001	0.001
	(0.002)	(0.002)
Board CSR gap	0.023***	0.021***
	(0.002)	(0.003)
Panel B: Social		
	(1)	(2)
VARIABLES	$\triangle_1$ Primary SOC	$\triangle_1$ Primary SOC
CSR gap	0.028***	0.027***
	(0.008)	(0.008)
Board CSR gap	0.198***	0.190***
	(0.010)	(0.012)
Panel C: Employee		
	(1)	(2)
VARIABLES	$\triangle_1$ Primary EMP	$\triangle_1$ Primary EMP
CSR gap	0.004	0.004
	(0.003)	(0.003)
Board CSR gap	0.027***	0.027***
	(0.003)	(0.004)
Panel D: Product		
	(1)	(2)
VARIABLES	$\triangle_1$ Primary PRO	$\triangle_1$ Primary PRO
CSR gap	0.005**	0.005**
	(0.002)	(0.002)
Board CSR gap	0.022***	0.021***
	(0.003)	(0.003)

Panel E: Community		
	(1)	(2)
VARIABLES	$\triangle_1$ Primary COM	$\triangle_1$ Primary COM
CSR gap	0.004	0.007
	(0.004)	(0.004)
Board CSR gap	0.044***	0.062***
	(0.005)	(0.007)
Panel F: Diversity		
	(1)	(2)
VARIABLES	$\triangle_1$ Primary DIV	$\triangle_1$ Primary DIV
CSR gap	0.010**	0.006
	(0.005)	(0.004)
Board CSR gap	0.091***	0.061***
	(0.006)	(0.007)
Panel G: Human Rights		
	(1)	(2)
VARIABLES	$\triangle_1$ Primary HUM	$\triangle_1$ Primary HUM
CSR gap	0.004*	0.005**
	(0.002)	(0.002)
Board CSR gap	0.015***	0.019***
	(0.003)	(0.004)
Observations	20,076	20,076
Controls	YES	YES
Year FE	YES	YES
Industry FE	YES	YES
Tercile Indicator	NO	YES

Table 7. Strengths and concerns of CSR

This table presents the results of regressions of primary firm's one-year leading CSR strength and concern score changes on the relative CSR score difference between CEO's directorship firm's CSR score and his or her primary firm's CSR score. $\triangle_1$ is the one-year change from t-1 to t. Panel A provides the CSR strength score change and Panel B provides the CSR concern score change. *CSR gap* is defined as *Directorship CSR Score* minus *Primary CSR Score*. *Board CSR gap* is defined as *Board CSR score* minus *Primary CSR score*. All control variables are lagged by one year. The other variable definitions are provided in the Appendix. Standard errors are reported within parentheses and are corrected for clustering at the firm level. Significance levels are *** p < 0,01, ** p < 0.05, and * p < 0.1.

Panel A: CSR strength		
	(1)	(2)
VARIABLES	$\triangle_1$ Primary STR	$\triangle_1$ Primary STR
CSR gap	0.017**	0.018***
	(0.007)	(0.007)
Board CSR gap	0.109***	0.116***
	(0.008)	(0.010)
Observations	20,073	20,073
Adjusted R-squared	0.184	0.188
Controls	YES	YES
Year FE	YES	YES
Industry FE	YES	YES
Tercile Indicator	NO	YES

Panel B: CSR concern		
	(1)	(2)
VARIABLES	$\triangle_1$ Primary CON	$\triangle_1$ Primary CON
CSR gap	0.012**	0.009*
	(0.006)	(0.006)
Board CSR gap	0.112***	0.096***
	(0.007)	(0.009)
Observations	20,076	20,076
Adjusted R-squared	0.200	0.209
Controls	YES	YES
Year FE	YES	YES
Industry FE	YES	YES
Tercile Indicator	NO	YES

Table 8. Exogenous CEO turnover

This table presents the results of regressions of primary firm's CSR score on its CEO's outside directorship firm's CSR score. *Directorship (Board) CSR Score* and *Board CSR Score* are constructed for each CEO (board members)'s outside directorship firms. All control variables are lagged by one year. The other variable definitions are provided in the Appendix. Column (1) is based on one-year before and after exogenous CEO turnovers and column (2) is based on two-year before and after exogenous CEO turnovers. Standard errors are reported within parentheses and are corrected for clustering at the firm level. Significance levels are *** p < 0,01, ** p < 0.05, and * p < 0.1.

VARIABLES	(1) Primary CSR	(2) Primary CSR
Directorship CSR Score	0.134*	0.088*
	(0.072)	(0.045)
Board CSR Score	0.220	0.235**
	(0.171)	(0.114)
Leverage	0.103	0.147
	(0.231)	(0.158)
ROA	0.177	-0.103
	(0.278)	(0.255)
R&D/Assets	1.309**	0.552
	(0.654)	(0.618)
Adv/Assets	-0.833	-1.547*
	(0.766)	(0.825)
Capital expenditure/Sales	0.244	0.321
	(0.431)	(0.232)
Percent tangible assets	0.008***	0.002
	(0.003)	(0.003)
Operating Cash Flow	0.013	0.302
	(0.333)	(0.255)
Market-to-book ratio	-0.003**	0.000
	(0.001)	(0.000)
Log(Assets)	-0.051	-0.021
	(0.069)	(0.055)
Annual Stock Return	-0.003	-0.029
	(0.036)	(0.026)
Volatility	-0.127	-0.062
	(0.111)	(0.091)
Percent independent directors	-0.253	-0.116
	(0.206)	(0.147)
CEO age	-0.004*	-0.002
	(0.002)	(0.002)
CEO tenure	0.003*	0.004*
	(0.002)	(0.002)
CEO female	-0.021	0.087
	(0.093)	(0.107)
Institutional ownership ratio	0.004	-0.012
	(0.123)	(0.107)
Constant	0.169	0.126
	(0.749)	(0.644)
Observations	1,236	1,939
Adjusted R-squared	0.601	0.623
Year FE	YES	YES
Firm FE	YES	YES

Table 9. Differential effects of CEO outside directorship CSR score on primary firm's CSR score change

This table presents the results of regressions of primary firm's CSR score change on its CEO's directorship CSR score with respect to the primary firm's CSR score. $\triangle_1$ is the one-year change from t-1 to t. *1 SD Higher (Lower) CSR Directorship* is an indicator variable that is one if the CEO holds at least one outside directorship and *Directorship CSR Score* is greater (smaller) than *Primary CSR Score* by one-standard deviation of *Primary CSR Score*, and zero otherwise. *1 SD Higher (Lower) CSR Board* is an indicator variable that is one if *Board CSR Score* is greater (smaller) than *Primary CSR Score* by one-standard deviation of *Primary CSR Score*, and zero otherwise. All control variables are lagged by one year. The other variable definitions are provided in the Appendix. Standard errors are reported within parentheses and are corrected for clustering at the firm level. Significance levels are *** p < 0,01, ** p < 0.05, and * p < 0.1.

	(1)	(2)
VARIABLES	$\triangle_1$ Primary CSR	$\triangle_1$ Primary CSR
1 SD Higher CSR Directorship	0.046***	0.031**
	(0.013)	(0.013)
1 SD Lower CSR Directorship	-0.028**	-0.014
	(0.013)	(0.013)
1 SD Higher CSR Board	0.192***	0.121***
	(0.008)	(0.009)
1 SD Lower CSR Board	-0.193***	-0.144***
	(0.011)	(0.011)
Bottom tercile indicator		0.088***
		(0.006)
Top tercile indicator		-0.060***
		(0.006)
Constant	-0.170***	-0.217***
	(0.028)	(0.030)
Observations	20,076	20,076
Adjusted R-squared	0.161	0.177
Controls	YES	YES
Year FE	YES	YES
Industry FE	YES	YES

Appendix: Variable definitions

Variable name	Description	Source
Primary CSR score	A variable that is measured by dividing the strength and concern scores for each dimension by its respective number of strength and concern indicators and then subtracting adjusted total concern scores from adjusted total strength scores	MSCI KLD and Refinitiv
Directorship CSR Score	The weighted average of CSR score for all the outside directorships that the CEO holds on a given year	MSCI KLD and Refinitiv
Board CSR Score	The weighted average of CSR score for each board member's outside directorship score (except CEO)	MSCI KLD and Refinitiv
CSR gap	Difference between Primary CSR score and Directorship CSR Score	MSCI KLD and Refinitiv
Board CSR gap	Difference between Primary CSR score and Board CSR Score	MSCI KLD and Refinitiv
1 SD Higher (Lower) CSR Directorship	Indicator variable that is one if the CSR score of CEO's directorship firm is greater (less) than the CSR score of his or her home firm by one standard deviation of home firm's CSR score, and 0 otherwise	MSCI KLD and Refinitiv
1 SD Higher (Lower) CSR Board	Indicator variable that is one if the CSR exposure of the board is greater (less) than the CSR score of the home firm by one standard deviation of home firm's CSR score, and 0 otherwise	MSCI KLD and Refinitiv
Leverage	(Long-term Debt + Debt in Current Liabilities)/(Total Assets)	Compustat
ROA	(EBITDA)/(Total Assets)	Compustat
R&D/Assets	Max(Research and Development Expense, 0)/(Total Assets)	Compustat
Adv/Assets	Max(Advertising Expense, 0)/(Total Assets)	Compustat
Capital expenditure/Sales	(Capital Expenditure)/(Total Sales)	Compustat

Percent tangible assets	(1 - Intangible Assets)/(Total Assets)*100	Compustat
Operating Cash Flow	(Cash flow from operations)/(Total Assets)	Compustat
Market-to-book ratio	(Market value of equity)/(Book value of equity)	Compustat
Assets	Total assets, in millions of dollars	Compustat
Annual Stock Return	Compounded 12-month return for the fiscal year	CRSP
Volatility	Standard deviation of most recent 12-month return for the fiscal year	CRSP
Percent independent directors	Percentage of independent directors out of total number of board members	ISS
CEO age	Age of CEO, in years	ISS
CEO tenure	Tenure of CEO, in years	ISS
CEO female	Indicator variable that is one if the CEO is female, and zero otherwise	ISS
Institutional ownership ratio	Percentage of ownership held by institutional investors	s34
CEO outside directorship (0/1)	Indicator variable that is one if a CEO holds at least one outside directorship in a given year	ISS