Aligning Incentives for Social Responsibility: Evidence from Performance-Contingent Equity Awards

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Abstract

This paper examines the relationship between CEO performance-contingent (p-c) incentive contracts and Corporate Social Responsibility (CSR). Drawing on contrasting perspectives—instrumental and agency cost—we investigate whether p-c equity awards incentivize managers to engage in CSR activities that enhance firm performance and value. Our findings indicate that p-c equity awards are positively associated with increased CSR engagement. Moreover, these awards effectively motivate CEOs to undertake value-enhancing CSR initiatives. Using firm-level fixed effects, the exogenous event of FAS 123-R adoption, and instrumental variable approaches, we confirm the robustness of these results. Additional tests reveal that the effects are stronger in firms that require greater stakeholder support, have stronger corporate governance, and face lower information asymmetry. Further analyses examine the impact of p-c equity awards across different CSR categories, including strengths and concerns. Overall, our study suggests that incorporating p-c equity awards into CEO compensation structures helps mitigate the agency problem between shareholders and managers, aligning the interests of both parties and fostering a synergistic relationship between shareholder wealth and societal well-being.

Keywords: Corporate Social Responsibility; Performance-contingent Equity Awards; Shareholder Wealth; Social Well-being

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1. Introduction

The last several decades have witnessed significant increase in the attention and investment to Corporate Social Responsibility (CSR) activities by firms. This phenomenon has spurred intensive debates, both in academic circles and among practitioners, regarding the alignment of CSR engagement with the overarching goal of shareholder value maximization. The crux of this debate revolves around two contrasting perspectives: proponents of CSR argue from an instrumental standpoint, contending that stakeholders reward socially responsible initiatives, thereby enhancing profitability and firm value (e.g. Flammer, 2015; Dimson, Karakas, and Li, 2015; Edmans, 2020; Ciciretti, Dalò, and Dam, 2023). Conversely, critics argue from an agency cost perspective, suggesting that CSR activities represent managerial self-interest at the expense of shareholders (e.g. Friedman, 1970; Masulis and Reza, 2015; Cespa and Cestone, 2017).

This fundamental dichotomy raises a critical question: how can shareholders effectively incentivize managers to make CSR investment decisions that align with shareholder interests? While managers are entrusted with making CSR investment decisions, it is shareholders who design and structure managerial compensation. However, shareholders may not always possess perfect insight into what constitutes the optimal course of action for the firm, particularly when the impact of social investments on shareholder wealth is inherently uncertain and complex to evaluate. Hence, it becomes imperative for shareholders to design compensation frameworks that incentivize managers to make CSR investments that enhance profitability and firm value.

The emerging trend of directly linking managerial rewards to CSR outcomes, known as CSR contracting, risks encouraging managers to prioritize CSR activities for personal gain rather than aligning them with shareholder value. This misalignment highlights the need for alternative structures that balance financial and social objectives. This paper examines the impact of

performance-contingent (p-c) equity awards on corporate social performance. These awards link vesting and payout to a firm's performance over a predetermined period, often using metrics related to accounting or stock price performance. Over the years, U.S. public firms have increasingly adopted compensation schemes that align managerial pay with specific performance metrics. By 2015, the prevalence of p-c equity awards had surpassed that of traditional time-vested stock options, reflecting a significant shift in how firms incentivize managerial decision-making (Li and Wang, 2016; Bizjak, Kalpathy, and Mihov, 2019).

The impact of linking managerial pay to performance metrics on CSR activities can be twofold. From an instrumental perspective, incentivized managers may increase CSR investments, viewing them as a strategic tool to gain stakeholder support (Banerjee, Homroy, and Slechten, 2022) and mitigate risks associated with potential negative shocks, thereby enhancing firm performance and value. Conversely, the agency cost perspective posits that such managers might reduce CSR activities, perceiving them as self-serving endeavors that detract from shareholder wealth and diminish profitability. Importantly, these perspectives are not mutually exclusive. Managers may simultaneously weigh the instrumental benefits and agency costs of CSR when formulating their strategies. As a result, examining the effects of p-c compensation on CSR provides a holistic understanding of its net impact, capturing both value-enhancing and potentially self-serving dimensions of CSR initiatives.

To empirically test our hypotheses, we construct variables for performance-contingent (p-c) equity awards tied to either accounting performance or stock price performance metrics (Li and Wang, 2016; Bizjak, Kalpathy, and Mihov, 2019). To evaluate the impact of CEOs' p-c awards on firms' CSR engagement, we analyze both social strengths and concerns using data from the MSCI CSR KLD STATS database. The composite CSR score is calculated by subtracting the total

concerns from the total strengths across six dimensions: environment, community, diversity, employee relations, human rights, and product quality and safety. To ensure robustness, we also employ a scaled CSR measure following the methodology of Cao, Liang, and Zhan (2019). Our analysis reveals a positive and statistically significant relationship between p-c equity awards and CSR engagement, robust to firm and state-year fixed effects.

To further investigate whether the adoption of p-c equity awards incentivizes managers to pursue value-enhancing CSR activities, we examine the net effects of CSR investment on firms' future performance. Using key performance metrics frequently employed in p-c contracts—such as Tobin's Q, three-year buy-and-hold abnormal returns, and three-year return on assets (ROA)—our results indicate that CSR investments driven by p-c compensation positively influence both firm performance and value. These findings support our proposition that linking managerial equity compensation to performance metrics encourages managers to concurrently maximize firms' financial and social performance.

While our baseline results demonstrate a significant relationship between CSR and CEO performance-contingent (p-c) equity awards, they are not entirely free from potential endogeneity concerns, such as omitted variable bias, measurement error, and simultaneity. Although we incorporate firm fixed effects in our baseline regressions to account for time-invariant firm characteristics, we adopt additional methodological approaches to further mitigate these issues.

First, we leverage the introduction of Financial Accounting Standard (FAS) 123-R as an exogenous shock to the composition of executive compensation packages, following the methodologies of Bizjak, Kalpathy, and Mihov (2019) and Hayes, Lemmon, and Qiu (2012). The implementation of FAS 123-R significantly reduced the prevalence of traditional stock options while increasing the adoption of p-c equity awards (Carter, Lynch, and Tuna, 2007; Hayes,

Lemmon, and Qiu, 2012; Bettis et al., 2018). Using this regulatory shift, we conduct change regressions to analyze the impact of this event. Second, we employ an instrumental variable (IV) approach, conducting two-stage least squares (2SLS) and three-stage least squares (3SLS) analyses to strengthen the identification of the causal relationship between p-c equity awards and CSR. Finally, to further validate the robustness of our findings, we replicate the baseline regressions while incorporating executive fixed effects to control for time-invariant characteristics specific to individual executives (Chen et al., 2020). Across these supplementary analyses, our results remain consistent and robust, reinforcing the validity of our conclusions and demonstrating that the observed relationship between p-c equity awards and CSR is not driven by endogeneity concerns.

Our findings indicate that linking managerial compensation to performance targets incentivizes managers to engage in value-enhancing CSR activities. To further investigate the mechanisms driving this relationship, we conduct a series of ancillary tests to explore how p-c compensation influences managerial decisions regarding CSR investments. First, drawing from the instrumental perspective of CSR—which argues that CSR initiatives align shareholder and stakeholder interests, ultimately enhancing profitability and firm value—we examine the role of stakeholder support as a motivator for CEOs with p-c equity awards. Using three proxies for stakeholder support demand, *Unemployment Insurance*, *Product Market Fluidity*, and *Product Concentration* (Flammer and Luo, 2017; Hoberg, Phillips, and Prabhala, 2014; Hoberg and Phillips, 2010), we find robust evidence that CEOs receiving p-c equity awards are more likely to engage in CSR activities aimed at securing and strengthening stakeholder relationships. Second, grounded in hidden action theory, which posits that managers may prioritize self-serving actions over shareholder interests when their decisions lack transparency, we assess the influence of corporate governance strength on the relationship between p-c equity awards and CSR. Using

Independent Directors (e.g., Weisbach, 1988) as a proxy for governance quality, we observe that the effect of p-c equity awards on CSR is significantly amplified in firms with robust governance structures, where managerial actions are subject to greater scrutiny and accountability. Third, inspired by hidden information agency theory, which suggests that managers with private information may engage in rent-seeking behaviors, we investigate how information asymmetry shapes the relationship between p-c equity awards and CSR activities. Proxies for information asymmetry, including the number of financial analysts covering the firm, the annual average of daily bid-ask spreads, and stock volatility, reveal that the positive effect of p-c equity awards on CSR engagement is more pronounced in firms with lower levels of information asymmetry. This finding highlights that in more transparent firms, managers incentivized by p-c compensation are more likely to undertake value-enhancing CSR initiatives, as the market is better positioned to recognize and reward the long-term benefits of such actions. These results collectively provide a deeper understanding of how stakeholder support, corporate governance, and information transparency interact with p-c compensation to drive managerial engagement in CSR, reinforcing its potential to align managerial actions with shareholder value creation.

To bolster the robustness of our findings, we conduct two supplementary analyses. First, we disaggregate the CSR scores into six distinct categories—environment, community, diversity, employee relations, human rights, and product quality and safety—and examine their individual relationships with p-c equity awards. Our analysis reveals that the influence of p-c equity awards on CSR varies across these categories. Specifically, we observe the strongest effects in the domains of employee relations and product quality and safety, indicating that p-c compensation encourages CEOs to focus on CSR initiatives that directly enhance stakeholder support. In contrast, while the effects remain significant, they are relatively weaker in the categories of environment, community,

and diversity. Second, we further decompose the CSR scores into total strengths and total concerns to provide a more nuanced evaluation of the impact of p-c equity awards on different dimensions of CSR performance. This decomposition reveals a dual effect: p-c equity awards are positively associated with CSR strengths, suggesting an emphasis on value-enhancing initiatives, while simultaneously reducing CSR concerns, indicating a decline in potentially harmful or suboptimal CSR practices. These additional analyses highlight the targeted influence of p-c equity awards on specific aspects of CSR, reinforcing their role in aligning managerial actions with stakeholder and shareholder interests.

Our paper contributes to multiple streams of literature by advancing the understanding of the relationship between managerial compensation and CSR investment decisions. First, we add to the nascent body of work investigating how executive compensation influences CSR initiatives. While prior research has examined the incorporation of CSR criteria into compensation schemes—a practice known as CSR contracting—the findings have been inconclusive. For instance, studies by Hong, Li, and Minor (2016) and Flammer, Hong, and Minor (2019) suggest that directly incentivizing executives based on CSR outcomes can enhance firm social performance and value. In contrast, Maas (2018) finds no significant relationship, highlighting the challenges of aligning CSR incentives with desired outcomes. These mixed results reflect the complexity of CSR contracting, where poorly designed incentives may encourage managers to prioritize CSR activities for personal gain rather than shareholder value (Xi et al., 2023). Our study diverges from this approach by focusing on p-c equity awards tied to performance metrics. We demonstrate that such schemes effectively drive managers to balance financial and social objectives, reducing conflicts of interest and fostering alignment between managerial actions, shareholder goals, and stakeholder interests.

Second, our study contributes to the broader CSR literature by addressing the enduring debate over whether CSR investments align with the objective of shareholder value maximization. By showing that managers with p-c equity awards are more likely to invest in CSR initiatives that enhance profitability and firm value, we provide empirical evidence supporting the compatibility of CSR and shareholder interests. In line with Ferrell, Liang, and Renneboog (2016), our findings challenge the notion that shareholder primacy is inherently at odds with pursuing social objectives. Instead, we argue that appropriately structured compensation schemes can harmonize these goals, creating a synergistic relationship between CSR and value creation.

Third, our research enriches the managerial compensation literature by examining the influence of performance-based pay on corporate CSR decisions. While previous studies have primarily focused on the impact of financial performance targets in managerial compensation on firm decisions such as investment, innovation, and risk-taking (e.g., Gibbons and Murphy, 1992; Lerner and Wulf, 2007; Baranchuk et al., 2014; Flammer and Bansal, 2017; Mao and Zhang, 2018), we extend this inquiry to include CSR activities. Our findings reveal that p-c equity awards, whether tied to stock price or accounting metrics, serve as powerful motivators for managers to enhance both financial and social performance. This highlights the dual role of p-c compensation in mitigating agency problems between shareholders and managers while aligning the interests of stakeholders and shareholders. Ultimately, our research underscores the potential for performance-based compensation to foster a symbiotic relationship between corporate profitability and societal well-being.

The paper proceeds as follows. Section 2 reviews the related literature and discusses the hypothesis development. Section 3 describes the data, sample and empirical design. Section 4 discusses the baseline results and outcome test. Section 5 addresses endogeneity issues. In Sections

6 and 7, we provide further evidence from cross-section analyses and additional robustness tests. Section 8 concludes.

2. Related Literature and Hypothesis Development

CSR has garnered significant attention in recent decades, with ongoing debates about its compatibility with enhancing firm performance and maximizing shareholder value. Proponents of the instrumental theory of CSR argue that engaging in CSR activities aligns with value enhancement for firms because it facilitates stakeholder support (File and Prince, 1998; Hillman and Keim, 2001; Wang, Choi, and Li, 2008). In situations involving incomplete contracts and potential negative externalities, stakeholders might hesitate to fully commit to supporting a firm (Hart and Moore, 1988; Hamilton, 1993). CSR initiatives can mitigate uncertainties arising from incomplete contracts and alleviate issues caused by negative externalities (Harrison and Freeman, 1999; Jensen, 2010; Kitzmueller and Shimshack, 2012). Consequently, CSR can bolster future firm performance through various channels, including talent retention, improved employee engagement, prevention of adverse behaviors like information leakage, increased investor confidence, reduced borrowing costs, strengthened customer loyalty, and attract investors (Pérez and Del Bosque, 2015; Flammer and Luo, 2017; Flammer and Kacperczyk, 2019; Marshall et al., 2022; Liu et al., 2023; Degryse et al., 2023; Ciciretti, Dalò, and Dam, 2023).

Conversely, critics argue that CSR engagement often reflects agency problems, wherein managers pursue socially responsible behavior to cater to their own preferences or to enhance the firm's image superficially, potentially at the expense of shareholders (Benabou and Tirole, 2010; Cheng, Hong, and Shue, 2014; Masulis and Reza, 2015). While some CSR activities may temporarily bolster a firm's reputation, they could undermine long-term firm value. Some

managers strategically time CSR initiatives to coincide with earnings management, leading to short-term stock price increases (Petrovits, 2006). Furthermore, evidence suggests that CEOs may use CSR investments to manipulate stock prices, capitalizing on the preference of socially conscious investors for responsible firms (Ioannou and Serafeim, 2015; Heinkel, Kraus, and Zechner, 2001; Hong and Kacperczyk, 2009). However, this demand often results in the overvaluation of CSR-focused firms in the long term (Galema, Plantinga and Scholtens, 2008; Renneboog, Ter Horst and Zhang, 2008). Additionally, extensive engagement in CSR activities may divert managerial attention from core responsibilities, ultimately diminishing productivity and firm performance (Jensen, 2010; Murray, 2007; Malmendier and Tate, 2009; Faleye and Trahan, 2011).

In summary, both the instrumental and agency theories highlight the pivotal role of CEO p-c incentive contracts in shaping managerial decisions regarding CSR investment, albeit from contrasting perspectives. This study examines how such contract impact CSR engagement and its outcomes, proposing distinct hypotheses aligned with each theoretical framework.

The instrumental theory posits that CSR activities enhance long-term performance by fostering stakeholder support and mitigating uncertainties arising from incomplete contracts (Waddock and Graves, 1997; Lev, Petrovits, and Radhakrishnan, 2010; Wang and Qian, 2011). Managers whose compensation is tied to long-term performance are motivated to undertake value-enhancing initiatives like CSR (Admati and Pfleiderer, 2009). Given the inherent complexity of CSR and the presence of incomplete contracts, managerial incentive compensation plays a pivotal role in aligning managerial actions with long-term value creation. CEOs with p-c incentives are more inclined to invest in CSR, as their future compensation is tied to the long-term benefits of CSR activities. In contrast, CEOs lacing such incentives may be less inclined to invest in CSR, as

they are less likely to benefit directly from its long-term outcomes. Hence, under the instrumental theory, CSR engagement is positively associated with CEO p-c incentive contracts, leading to the formulation of Hypothesis 1a (H1a):

H1a: If instrumental incentives primarily drive CSR engagement, CEO p-c incentive contracts should positively correlate with firms' CSR activities.

On the other hand, agency theory casts CSR as a potential vehicle for managerial self-interest, often at the expense of shareholder value. Under this perspective, CEO many engage in CSR to bolster their personal image, reputation, and financial interests, rather than to enhance firm value. However, CEOs with greater p-c incentives are less likely to invest extensively in CSR activities, as their future payouts are better aligned with those of shareholders. Therefore, under the agency theory, a negative relationship is posited between CEO p-c incentive contracts and CSR engagement. This leads to the formulation of Hypothesis 1b (H1b):

H1b: If agency incentives are the prevailing force driving CSR engagement, CEO p-c incentive contracts should negatively correlate with firms' CSR activities.

By juxtaposing these two hypotheses, this study aims to provide a nuanced understanding of the role of CEO p-c incentive contracts in shaping firms' CSR strategies and outcomes,

3. Data, Sample and Empirical Design

3.1 Data Description and Sample Construction

Our sample starts with all Compustat firms spanning from fiscal years 1998 to 2018. We begin our sample year from 1998, as it marks the inception of detailed CEO compensation variables on ISS Incentive Lab. Incentive Lab, a comprehensive compensation database, furnishes in-depth information extracted from corporate reports and proxy statements, particularly regarding

equity awards such as vesting schedules and associated metrics for S&P 500 and S&P 400 (midcap) firms (e.g., Bettis, Bizjak, Coles, and Kalpathy, 2018). The sample concludes in 2018, aligning with the last year that the MSCI CSR KLD STATS database (previously known as KLD) provided CSR scores. Financial data originates from Compustat, while stock return data derives from CRSP. Our primary sample comprises 10,274 firm-year observations across 968 firms throughout the sample period. The sample size fluctuates in subsequent analyses due to additional variable requisites.

3.2. Performance-contingent Equity Award Structure

In constructing variables for p-c equity awards, we adhere to methodologies outlined by Bizjak, Kalpathy, and Mihov (2019) and Bettis et al. (2018). We identify p-c equity awards with either accounting or stock price conditions based on metrics provided by Incentive Lab. Specifically, awards with "Stock Price" vesting metrics are categorized as having stock price conditions, while those tied to earnings or sales are deemed to have accounting conditions. We introduce a binary variable, *PCEQ*, which denotes whether a firm grants CEO stocks or stock options with either accounting or stock price conditions for vesting. Moreover, to discern potential differential impacts, we construct two additional binary variables: *PCEQ_ACCT*, indicating awards with accounting conditions, and *PCEQ_STKPRC*, indicating awards with stock price conditions. Additionally, we introduce *PROPPCEQ* as a continuous variable to gauge the proportion of grant-date fair value of performance-contingent awards relative to total CEO compensation. *PROPPCEQ_ACCT* and *PROPPCEQ_STKPRC* further delineate this proportion for awards with accounting and stock price conditions, respectively.

3.3. CSR Scores

To comprehensively capture the influence of CEOs' performance-contingent awards on the social and environmental engagement of firms, we incorporate both social benefits (strengths) and harms (concerns) from the MSCI CSR KLD STATS database. Following established CSR literature practices, we compute scores by subtracting the sum of concerns from the sum of strengths across six categories: environment, community, diversity, employee relations, human rights, and product quality and safety. [1] However, the raw CSR measure may exhibit bias due to construction methodology (Deng, Kang, and Low, 2013). Hence, for robustness, we construct a scaled CSR measure. Consistent with Servaes and Tamayo (2013), we normalize strengths and concerns within each category to obtain category net ratios, which we sum across all categories to derive an overall net measure, Scaled CSR, ranging from -6 to +6. We employ both raw and scaled CSR measures in empirical tests to ensure robustness.

3.4. Empirical Design

For the baseline tests, we employ regression analysis to examine the relationship between CSR scores and CEO p-c equity awards, alongside firm characteristic variables, State-Year fixed effects (α_{st}), and firm fixed effects (θ_i):

$$CSR_{i,t+1} = \alpha_{st} + \theta_i + bX_{i,t} + \gamma\ CEO\ Performance\text{-}contingent\ Incentives_{i,t} + \varepsilon_{i,t+1}, \quad (1)$$

where CSR represents either *Raw CSR* or *Scaled CSR*. *CEO Performance-contingent Incentives* alternates among 1) *PCEQ* dummy, indicating the presence of p-c equity awards; 2) *PCEQ_ACCT* and *PCEQ_STKPRC* dummies, representing p-c equity awards with accounting and stock price

[1] We follow the literature for calculating scores. This method entails aggregating the discrepancies between strengths and concerns across five dimensions: environment, community, diversity, employee relations, and corporate governance. These dimensions encapsulate the environmental, social, and governance facets of a firm. The consistency of our results is maintained across the paper and can be provided upon request.

conditions, respectively; 3) *PROPPCEQ*, denoting the proportion of p-c equity awards to total compensation; and 4) *PROPPCEQ_ACCT* and *PROPPCEQ_STKPRC,* indicating the proportions of p-c equity awards with accounting and stock price conditions to total compensation. $X_{i,t}$ denotes a vector of annual firm characteristics variables, including CEO delta, CEO vega, total CEO pay, firm size, Tobin's Q, profitability, free cash flow, leverage, capital expenditures, product concentration, and director independence.

Given the potential correlation between p-c incentives and other executive compensation dimensions, we incorporate CEO delta and vega to proxy for managerial risk-taking incentives. Total CEO pay is included to gauge the overall compensation package. The resource-based view of CSR suggests that larger companies with higher asset valuation and superior accounting performance allocate more resources to CSR investments (McWilliams and Siegel, 2000). Capital expenditures are related to CSR endeavors (McWilliams and Siegel, 2000; Masulis and Reza, 2019), whereas leverage poses a constraint that discourages managers from spending corporate resources on social philanthropy (Krueger, 2015). Cash holding and free cash flow measure the resource slack that CEOs can afford as well as the magnitude of potential agency issues. Hence, we include variables such as firm size, Tobin's Q, profitability, capital expenditures, leverage, cash holding, and free cash flow. Moreover, product market competition and the proportion of independent directors on the board are included to control for stakeholder support and corporate governance quality, respectively (Hoberg and Philips, 2010; Weisbach, 1988). To mitigate potential biases stemming from unobserved firm-level factors, firm fixed effects are included in all analyses. Additionally, State-Year dummies are incorporated to account for state-level policy effects and temporal changes in CSR and executive compensation dynamics. Detailed definitions of all control variables are provided in the Appendix.

4. Main Results

4.1. Summary Statistics and Correlations

[Insert Table 1 here]

Table 1 provides descriptive statistics on CSR measures, p-c equity awards, other incentive measures, and control variables. All non-dummy variables are winsorized at the 1st and 99th percentiles. We observe that, on average, firms' average raw (scaled) CSR score is 1.013 (0.073). Upon further breakdown into strengths and concerns, the average raw (scaled) strength score is 2.534 (0.446), while the average raw (scaled) concern score is 1.521 (0.373). Approximately 46.7% of the firms in our sample grant their CEOs compensation with vesting requirements linked to performance. Of these, 36.4% (24.1%) have p-c equity awards with accounting (stock price) conditions. These awards collectively represent 17.6% of CEO compensation in a year. Upon decomposition, 13.0% (8.3%) of the total compensation is performance-contingent with accounting (stock price) conditions. It's noteworthy that the sum of the proportion of performance-contingent with accounting or stock price conditions exceeds the total proportion of performance-contingent, as some awards are linked with both accounting and stock price conditions. CEO delta and CEO vega metrics indicate strong incentivization, with a 1% stock price change impacting a CEO's annual compensation by approximately $94,451 in 2016 dollars, while a 1% change in stock volatility affects compensation by around $34,085.

[Insert Table 2 here]

Table 2 displays the Pearson correlation coefficients between CEO p-c equity awards and other variables. Correlation coefficients are delineated in the first row, with corresponding p-values reported in parentheses in the second row. The table suggests a positive relationship

between all six measures of CEO p-c equity awards and both raw CSR score and scaled CSR score. These findings tentatively support the CSR instrumental hypothesis, indicating that CEOs potentially enhance CSR investment when their future pay is tied to future performance, irrespective of whether it pertains to stock price or accounting performance.

4.2. Baseline Test Results

[Insert Table 3 here]

We present in Table 3 the baseline results from estimating Equation (1). Both raw CSR score and scaled CSR score are utilized as dependent variables to offer a comprehensive analysis of CSR decisions. Our findings reveal positive and statistically significant coefficients for all specifications where the dependent variables are raw CSR in Columns (1) to (4), and scaled CSR in Columns (5) to (8). State-year fixed effects and firm fixed effects are incorporated in all columns, and standard errors are clustered by firm and year.

Consistent with the predictions of the instrumental hypothesis, firms that provide their CEOs with p-c equity awards are more likely to attain higher CSR scores. This relationship holds significance for both p-c equity awards with accounting conditions and those with equity conditions. Moreover, the economic impact is noteworthy. For instance, compared to firms that do not grant their CEOs p-c equity awards, firms granting such awards exhibit raw CSR (scaled CSR) scores that are 0.777 (0.178) units higher, equating to approximately 26% (28%) of the standard deviation of raw CSR (scaled CSR). A one-standard-deviation increase in the proportion of p-c equity awards corresponds to a 12% (12%) increase in raw CSR (scaled CSR). The positive and significant effect of CEO p-c equity awards on CSR remains robust even after controlling for other managerial compensation incentives, such as CEO delta and vega. This finding highlights the unique influence of p-c equity awards on managerial behavior, emphasizing their distinct role in

shaping CSR engagement. Moreover, it underscores the importance of incorporating p-c equity awards into studies of executive incentives to fully capture their impact on corporate decision-making.

In examining CEO compensation variables, the results reveal that CEO delta is positively and significantly associated with CSR, while CEO vega exhibits a negative relationship. These findings suggest that CEOs whose compensation is more closely tied to stock price performance are more likely to enhance their firms' CSR engagement. In contrast, CSR efforts decrease when CEO incentives are strongly linked to firm volatility. This is consistent with prior research indicating that firms may leverage CSR initiatives to mitigate short-term volatility (Petrovits, 2006; Ioannou and Serafeim, 2015). The analysis of other control variables aligns with existing literature. Firm size is positively associated with CSR scores, reflecting that larger firms are better equipped to allocate resources toward socially responsible initiatives (McWilliams and Siegel, 2000). Similarly, free cash flow is positively correlated with CSR, supporting the slack-resource theory, which posits that financial resource abundance facilitates CSR activities (Flammer and Luo, 2017). Leverage also shows a positive effect, indicating that debtholders, as key stakeholders, may play a role in promoting CSR. Furthermore, the proportion of independent directors is positively linked to CSR engagement, consistent with the instrumental perspective of CSR, which highlights the alignment of stakeholder and shareholder interests.

4.3. Outcomes of CSR by p-c Incentivized CEOs

If performance-contingent (p-c) equity awards, which align CEO compensation with future stock and accounting performance, effectively drive value-enhancing CSR investments, the net impact of these investments on firm performance should be positive. Consequently, we

hypothesize that firms with higher intensities of p-c equity awards will experience improved future performance due to their increased CSR engagement.

To test this hypothesis, we evaluate firm performance using multiple measures. First, acknowledging that the average vesting period for stock price and accounting conditions is approximately three years, we use Tobin's Q over the subsequent three years as an indicator of firm performance, reported in Panel A of Table 4. Second, we examine whether CSR investments, which aim to enhance stakeholder welfare and satisfaction, ultimately generate shareholder value. For this analysis, we use three years of abnormal stock returns as a direct measure of shareholder wealth, presented in Panel B. Third, we assess the relationship between the interaction of p-c equity awards and CSR scores and future accounting performance, measured by the three-year return on assets (ROA), as shown in Panel C.

To explore these relationships, we estimate the following model, where the outcome variable alternates among Tobin's Q, abnormal stock returns, and ROA:

$$Outcome\ Variable_{i,t+3} = \alpha_{st} + \theta_i + bX_{i,t} + \gamma\ p\text{-}c\ Equity\ Awards_{i,t} + \delta\ CSR_{i,t} + \eta\ p\text{-}c\ Equity\ Awards_{i,t} * CSR_{i,t} + \varepsilon_{i,t+3}, \quad (2)$$

[Insert Table 4 here]

In Panel A of Table 4, we find that the interaction terms of p-c equity awards and CSR measures are positively associated with Tobin's Q, indicating enhanced firm value. Furthermore, p-c equity awards tied to accounting conditions demonstrate greater efficacy in promoting CSR activities that lead to superior long-term performance compared to those tied to stock price conditions.

Panel B examines shareholder wealth by analyzing buy-and-hold abnormal returns over three years following the fiscal year-end. The interaction between p-c equity awards and CSR

measures significantly enhances abnormal returns, supporting the notion that CSR investments incentivized by p-c equity awards generate value for shareholders.

In Panel C, we measure firm operating performance using the three-year ROA. The interaction terms for p-c equity awards and CSR scores yield positive and significant coefficients across various specifications using raw CSR scores. These results suggest that p-c equity awards incentivize CEOs to intensify CSR efforts, leading to improved accounting performance. Additionally, CSR investments motivated by p-c equity awards tied to accounting conditions positively correlate with future profitability, whereas those linked to stock price conditions do not exhibit a significant impact on profitability.

The findings from these outcome tests provide robust evidence that p-c equity awards effectively incentivize CEOs to optimize both social and financial performance. These results align with the proposition that p-c equity awards motivate CEOs to engage in value-enhancing CSR activities, potentially by leveraging enhanced stakeholder support. The differential impacts of award conditions further underscore their importance in shaping firm policies and long-term outcomes.

5. Endogeneity Tests

While our baseline results confirm the hypothesized relationships between CSR scores and CEO p-c equity awards, we recognize the potential endogeneity issues that may affect these findings. These issues could stem from omitted variables, noisy proxies, and simultaneity concerns. To address these challenges, we incorporate firm fixed effects in all analyses to control for time-invariant firm characteristics. Additionally, we adopt several methodologies, as suggested by Bizjak, Kalpathy, and Mihov (2019), to further mitigate endogeneity concerns and strengthen the robustness of our results. These methods include change regressions around an exogenous event,

instrumental variable approaches using both two-stage least squares (2SLS) and three-stage least squares (3SLS), as well as the inclusion of CEO fixed effects as additional controls.

[Insert Table 4 here]

5.1. Adoption of FAS 123-R

Following the approach of Bizjak, Kalpathy, and Mihov (2019), as well as Hayes, Lemmon, and Qiu (2012), we utilize the adoption of accounting standard FAS 123-R as a plausibly exogenous shock to p-c equity awards. Prior to the adoption of FAS 123-R, firms expensed all equity awards at their intrinsic value. As a result, no expense for these awards was recorded on income statements before FAS 123-R, given that firms typically granted time-contingent stock options at-the-money. However, for p-c awards, their intrinsic value was non-zero and had to be expensed prior to FAS 123-R. In December 2004, the Financial Accounting Standards Board (FASB) adopted FAS 123-R, mandating all publicly traded U.S. firms to adopt the fair-value method to expense time-contingent stock options. Following the regulation's effective date in fiscal year 2006, traditional stock options, which are time-based, experienced a reduction in usage, while other incentive forms, including performance-based equity awards, witnessed a significant surge. Consequently, the setting of FAS 123-R serves as an identification strategy that allows us to examine the influence of p-c equity awards on corporate social activities.

To construct a subsample covering a substantial period surrounding FAS 123-R, we utilize data from fiscal years 2002 to 2009. We define the period from 2002 to 2005 as pre-FAS 123-R and the period from 2006 to 2009 as post-FAS 123-R. Subsequently, we compute the average values of p-c variables, CSR variables, and other control variables for both pre- and post-FAS 123-R periods. These average values facilitate the calculation of changes in these averages during the pre- and post-FAS 123-R periods. We regress the changes in CSR on changes in p-c equity awards

by re-estimating Equation (1) using these change variables and present the results in Panel A of Table 4.

The coefficients of the changes in p-c equity awards around the adoption of FAS 123-R are consistently significant and positive across all models. This suggests that increases in these p-c awards are associated with improvements in CSR scores. These results bolster the robustness of our baseline findings and indicate a potentially causal relationship between p-c equity awards and CSR.

5.2. Instrumental Variable (IV) Estimation

To enhance the robustness of our identification strategies, we employ an instrumental variable (IV) approach to discern the effect of p-c equity awards on CSR. As demonstrated by Bettis, Bizjak, Coles, and Kalpathy (2018), the adoption of p-c equity awards as part of incentives often stems from competitive responses to industry peers' usage, suggesting that industry average p-c equity award rates serve as relevant instrumental variables. Moreover, it is unlikely that industry average rates of p-c awards influence CSR beyond the p-c award channel, thus satisfying the exclusion restriction for the instruments (Bizjak, Kalpathy, and Mihov, 2019).

For industry instrumental variables, we define the fraction of firms within the same industry (two-digit SIC) in a given year utilizing p-c awards with either accounting or stock price metrics as the IV for PCEQ. Similarly, we compute two additional IVs representing the fractions of firms within the industry employing p-c equity awards with accounting conditions and those with stock price conditions, for PCEQ_ACCT and PCEQ_STKPRC, respectively. For continuous variables PROPPCEQ, PROPPCEQ_ACCT, and PROPPCEQ_STKPRC, we calculate their industry means in a given year as instrumental variables.

We conduct 2SLS analysis for PCEQ and PROPPCEQ, presenting the results in Panel B.1 of Table 4. In the first stage, we regress PCEQ (PROPPCEQ) on industry PCEQ (PROPPCEQ) average and other control variables to obtain their predicted values in odd-numbered columns. The positive and significant coefficients of industry PCEQ and industry PROPPCEQ align with our prediction that firms provide CEOs with p-c incentives to match their industry competitors. Utilizing the predicted values of p-c equity awards in the second-stage regressions in even-numbered columns, we confirm that firms with greater p-c equity awards to CEOs exhibit higher CSR scores.

Subsequently, following the approach of Bizjak, Kalpathy, and Mihov (2019), we conduct a three-stage least squares (3SLS) analysis to explore the distinct effects of p-c equity awards with accounting and stock price conditions in Panel B.2 of Table 4. We estimate a three-model system of equations with dependent variables as raw CSR score and scaled CSR score, variables indicating the use of p-c awards with accounting conditions (PCEQ_ACCT or PROPPCEQ_ACCT), and those indicating the use of p-c awards with stock price conditions (PCEQ_STKPRC or PROPPCEQ_STKPRC). PCEQ_ACCT and PCEQ_STKPRC (PROPPCEQ_ACCT and PROPPCEQ_STKPRC) are two endogenous variables likely jointly determined. The joint estimation in 3SLS accounts for error term correlations across equations. Consistent with previous findings, we observe that PCEQ_STKPRC and PROPPCEQ_STKPRC positively correlate with their industry averages but inversely correlate with the industry averages of PCEQ_ACCT and PROPPCEQ_ACCT, affirming that the utilization of p-c equity awards with accounting and stock price conditions is not independently determined. Importantly, the predicted values of PCEQ_ACCT, PCEQ_STKPRC, PROPPCEQ_ACCT, and PROPPCEQ_STKPRC all exhibit a positive and significant effect on corporate social responsibility scores.

5.3. Executive-level Fixed Effects

Davidson, Dey, and Smith (2019) find that CEO characteristics play a significant role in determining CSR scores. Therefore, to address potential endogeneity concerns stemming from executive-level time-invariant heterogeneity in CSR, we incorporate executive fixed effects as an additional method. These results, detailed in the Online Appendix, align generally with the baseline findings.

6. Cross-sectional Analyses

The preceding results demonstrate the influence of a firm's utilization of p-c equity awards, with accounting and stock price conditions, on its corporate social investment motives. To delve deeper into the mechanisms through which p-c equity awards impact CSR investment, we conduct a series of supplementary analyses.

6.1. Stakeholder Support

The instrumental theory of CSR posits that stakeholders' support is pivotal for firms to achieve their long-term performance objectives, incentivizing CEOs to invest in CSR when stakeholder support is in demand. We employ three proxies - *Unemployment Insurance*, *Product Market Fluidity*, and *Product Concentration* - to gauge the need for stakeholder support and explore whether CEOs with p-c equity awards engage in CSR activities to secure and uphold stakeholder support.

Unemployment Insurance correlates with the necessity to satisfy employees, as higher unemployment benefits reduce the cost of unemployment, thereby potentially increasing the likelihood of disgruntled employees engaging in adverse behavior (Flammer and Luo, 2017).

Product Market Fluidity measures the intensity of a firm's product market changes, serving as an indirect measure of product market competition (Hoberg, Phillips, and Prabhala, 2014). The literature has demonstrated the significant impact of customers on firms' CSR decisions (Dai, Liang and Ng, 2021; Banerjee, Homroy, and Slechten, 2022.). Therefore, we hypothesize that firms experiencing higher levels of product market fluidity may increase their investments in CSR initiatives to differentiate themselves from competitors and enhance competitiveness.

To test the joint effects of stakeholder support and p-c incentive awards on corporate CSR engagement, we utilize Equation (3):

$$CSR_{i,t+1} = \alpha_{st} + \theta_i + bX_{i,t} + \gamma \text{ p-c Awards}_{i,t} + \delta \text{ Stakeholder Support Measure}_{i,t} + \eta \text{ p-c Awards}_{i,t} * \text{Stakeholder Measure}_{i,t} + \varepsilon_{i,t+1}, \quad (3)$$

where the stakeholder support measure alternates between *Unemployment Insurance* in Panel A, *Product Market Fluidity* in Panel B, and *Product Concentration* in Panel C of Table 6.

We observe that the main effect of p-c equity awards on CSR is significantly amplified for firms with higher *Unemployment Insurance,* increased *Product Market Fluidity*, and decreased *Product Concentration*. These results suggest that the need for stakeholder support magnifies the impact of p-c equity awards on enhancing CSR. The evidence presented in this subsection underscores the significance of stakeholder support as a facilitating channel in the relationship between CEO p-c equity awards and CSR investments.

Furthermore, CSR activities tend to generate more stakeholder support during crises (Godfrey, Merrill, and Hansen, 2009). As demonstrated by Lins, Servaes, and Tamayo (2017), firms with high social capital outperform those with low social capital during financial downturns, such as the 2008–2009 financial crisis. In supplementary analyses, we find that the association between CEO p-c equity awards and CSR investments becomes more pronounced following the

Financial Crisis of 2007-2008, aligning with increased stakeholder support needs during crises. Detailed results are available upon request.

6.2. Corporate Governance

Strong corporate governance often aligns managers' actions with value-enhancing CSR initiatives. Hence, the positive impact of p-c equity awards on CSR should be more pronounced in firms with robust corporate governance structures. To explore this corporate governance channel, we employ a model akin to Equation (3), substituting *Independent Directors* as a governance metric to interact with CEO p-c measures.

[Insert Table 7 here]

Table 7 presents the results of this analysis. The coefficients of the interaction terms between *Independent Directors* and overall p-c equity award measures are both positive and significant, indicating that enhanced board oversight encourages CEOs incentivized by p-c equity awards to invest more in CSR. Further disaggregation by p-c equity award metrics reveals that the influence of internal corporate governance is particularly pronounced for awards with stock price conditions, while it is less significant for those with accounting conditions. This observation suggests that independent directors may prioritize shareholder interests over debtholder concerns, thus finding stock price conditions more effective in motivating CEOs' investment decisions.

6.3. Information Asymmetry

According to the hidden-information agency theory, managers with private, payoff-relevant information may exploit their positions for personal gain (e.g., Haugen and Senbet, 1997). However, in transparent information environments, the likelihood of managers engaging in self-serving CSR at the expense of shareholders diminishes, as shareholders can better evaluate the

potential payoffs of CSR initiatives. Furthermore, long-term investments, including CSR, are typically associated with higher levels of information asymmetry. We propose that information asymmetry plays a critical role in shaping the relationship between p-c equity awards and CSR: in transparent environments, managers are incentivized to pursue high-quality CSR projects, as markets can more effectively assess their long-term value.

To test this hypothesis, we use three proxies for information asymmetry: (1) the number of financial analysts covering the firm, which reflects market attention and reduces information gaps between the firm and its investors; (2) the annual average bid-ask spread, which captures the firm's information environment; and (3) stock volatility, an indirect measure of information asymmetry based on return variability.

[Insert Table 8 here]

Table 8 presents the results of our analysis on the interaction between information environment measures and CEO p-c equity awards. Panel A focuses on the number of analysts, Panel B on the annual bid-ask spread, and Panel C on stock volatility. Our findings indicate that the effect of p-c equity awards on CSR is significantly stronger for firms with greater analyst coverage, narrower bid-ask spreads, and lower stock return volatility. These results suggest that higher levels of information transparency enhance the influence of p-c equity awards on CSR initiatives.

In conclusion, our findings support the hypothesis that the positive relationship between CEO p-c equity awards and CSR is amplified in transparent information environments, where the inherent asymmetry of long-term investments is mitigated.

7. Additional Tests

7.1. CSR Categories

In this section, we extend our analysis to examine six distinct categories of CSR scores, using their aggregates as dependent variables in the baseline tests. This disaggregated approach allows us to explore whether the individual categories are comparable and whether they can be meaningfully aggregated, given their differing characteristics.

To ensure methodological rigor, we analyze each of the six CSR categories separately, focusing on their respective relationships with p-c equity awards. Our findings reveal that p-c equity awards significantly enhance CSR activities in two key areas: employee relations and product quality and safety. These results suggest that CEOs incentivized through p-c equity awards prioritize CSR initiatives that directly strengthen stakeholder support.

For the remaining three categories—environment, community, and diversity—the positive effects of p-c equity awards are still evident but notably weaker. Interestingly, p-c equity awards appear to have no discernible impact on the human rights category. These findings underscore the nuanced role of incentive contracts in shaping CSR engagement across different dimensions.

A detailed breakdown of these results is provided in the Online Appendix for further reference.

7.2. Strengths and Concerns of CSR

In line with existing literature highlighting the importance of dissecting net CSR into strengths and concerns (Ioannou and Serafeim, 2015), we undertake supplementary analysis by decomposing CSR scores into total strengths and total concerns. Our investigation reveals that p-c equity awards exert positive effects on CSR strengths, while concurrently exhibiting a negative

and significant relationship with CSR concern scores. Further details of these findings are reported in the Online Appendix.

8. Conclusion

This study provides an empirical analysis of the relationship between CEO p-c incentive contracts and corporate social responsibility (CSR), offering insights into how CEO compensation tied to firm performance influences CSR investment. Consistent with the instrumental perspective, our findings demonstrate a positive association between higher levels of p-c equity incentives for CEOs and improved CSR performance. This relationship is significant across both p-c contracts based on accounting conditions and those linked to stock price conditions.

To address potential endogeneity concerns, we employ multiple robustness checks, including change regressions around the exogenous event of FAS 123-R and instrumental variable approaches using 2SLS and 3SLS methods. These analyses confirm a causal relationship between p-c equity awards and CSR. Additionally, the inclusion of firm-level and CEO-level fixed effects in our baseline regressions ensures that our results account for both firm-specific and CEO-specific characteristics, further validating the robustness of our conclusions.

Supplementary analyses show that the positive link between CSR and p-c incentive contracts is amplified in firms requiring greater stakeholder support, those with stronger corporate governance frameworks, and those with lower information asymmetry. Further exploration of firms' long-term performance supports the instrumental perspective on CSR, reinforcing the notion that CSR investments can contribute to sustainable value creation. Robustness tests across various CSR categories, as well as decompositions of CSR scores into strengths and concerns, consistently reveal the enduring influence of p-c contracts on socially responsible activities. Moreover, our

findings indicate that firms consider executive compensation objectives when addressing both social strengths and concerns.

In conclusion, this study supports the instrumental perspective on CSR, demonstrating that aligning shareholder and stakeholder interests is facilitated by executive incentive structures that tie future compensation to long-term firm performance. These findings underscore the role of p-c contracts in fostering value-enhancing CSR initiatives, advancing both corporate and societal objectives.

References:

Admati, A.R., Pfleiderer, P., 2009. The "Wall Street Walk" and shareholder activism: Exit as a form of voice. *Review of Financial Studies*, 22(7), 2645-2685.

Banerjee, S., Homroy, S. and Slechten A., 2022. Stakeholder preference and strategic corporate social responsibility. *Journal of Corporate Finance* 77, 102286.

Baranchuk, N., Kieschnick, R. and Moussawi, R., 2014. Motivating innovation in newly public firms. *Journal of Financial Economics* 111, 578-588.

Barnea, A. and Rubin, A., 2010. Corporate social responsibility as a conflict between shareholders. *Journal of Business Ethics* 97, 71-86.

Bettis, J.C., Bizjak, J., Coles, J.L., and Kalpathy, S., 2018. Performance-vesting provisions in executive compensation. *Journal of Accounting and Economics* 66, 194-221.

Bizjak, J., Kalpathy, S. and Mihov, V., 2019. Performance contingencies in CEO equity awards and debt contracting. *The Accounting Review* 94, 57–82.

Cao, J., Liang, H., and Zhan, X., 2019. Peer effects of corporate social responsibility. *Management Science* 65, 5449-5956.

Carter, M.E., Lynch, L.J. and Tuna, I.R., 2007. The role of accounting in the design of CEO equity compensation. *The Accounting Review* 82, 327-357.

Cespa, G. and Cestone, G., 2007. Corporate social responsibility and managerial entrenchment. *Journal of Economics & Management Strategy* 16, 741-771.

Chen, J., Liu, X., Song, W. and Zhou, S., 2020. General managerial skills and corporate social responsibility. *Journal of Empirical Finance* 55, 43-59. https://doi.org/10.1016/j.jempfin.2019.10.007

Ciciretti, R., Dalò, A. and Dam, L., 2023. The contributions of betas versus characteristics to the ESG premium. *Journal of Empirical Finance* 71, 104-124. https://doi.org/10.1016/j.jempfin.2023.01.004.

Cremers, M., Litov, L., and Sepe, S., 2017. Staggered boards and long-term firm value, revisited. *Journal of Financial Economics* 126, 422-444.

Dai, R., Liang H. and Ng, L., 2021. Socially responsible corporate customers. *Journal of Financial Economics* 142, 598-626.

Davidson, R., Dey, A., and Smith, A., 2019. CEO materialism and corporate social responsibility. *The Accounting Review* 94, 101-126.

Degryse, H., Goncharenko, R., Theunisz, C. and Vadasz, T., 2023. When green meets green, *Journal of Corporate Finance* 78, 102355,

Deng, X., Kang, J.K., and Low, B.S., 2013. Corporate social responsibility and stakeholder value maximization: evidence from mergers. *Journal of Financial Economics* 110, 87-109.

Dimson, E., Karakaş, O., and Li, X., 2015. Active ownership. *The Review of Financial Studies* 28, 3225-3268.

Dowell, G., Hart, S. and Yeung, B., 2000. Do corporate global environmental standards create or destroy market value? *Management science* 46, 1059-1074.

Edmans, A., 2020. Grow the pie: how great companies deliver both purpose and profit. Cambridge University Press.

Ferrell, A., Liang, H. and Renneboog, L., 2016. Socially responsible firms. *Journal of Financial Economics* 122, 585-606.

Flammer, C., 2015. Does product market competition foster corporate social responsibility? Evidence from trade liberalization. *Strategic Management Journal* 36, 1469-1485.

Flammer, C. and Bansal, P., 2017. Does a long-term orientation create value? Evidence from a regression discontinuity. *Strategic Management Journal* 38, 1827-1847.

Flammer, C., and Kacperczyk, A.J., 2019. Corporate social responsibility as a defense against knowledge spillovers: evidence from the inevitable disclosure doctrine. *Strategic Management Journal* 40, 1243-1267.

Flammer, C., and Luo, J., 2017. Corporate social responsibility as an employee governance tool: evidence from a quasi-experiment. *Strategic Management Journal* 38, 163-183.

Friedman, M., 1970. The social responsibility of business is to increase its profits. *The New York Times Magazine,* September 13.

Gibbons, R. and Murphy, K.J., 1992. Optimal incentive contracts in the presence of career concerns: Theory and evidence. *Journal of political Economy* 100, 468-505.

Godfrey, P.C., Merrill, C.B., and Hansen, J.M., 2009. The relationship between corporate social responsibility and shareholder value: an empirical test of the risk management hypothesis. *Strategic Management Journal* 30, 425–445.

Guenster, N., Bauer, R., Derwall, J. and Koedijk, K., 2011. The economic value of corporate eco-efficiency. *European Financial Management* 17, 679-704.

Hayes, R.M., Lemmon, M., and Qiu, M., 2012, Stock options and managerial incentives for risk-taking: Evidence from FAS 123R. *Journal of Financial Economics* 105, 174– 190.

Hoberg, G., and Phillips, G., 2010. Real and financial industry booms and busts. *Journal of Finance* 65, 45-86.

Hoberg, G., Phillips, G., and Prabhala, N., 2014. Product market threats, payouts, and financial flexibility. *Journal of Finance* 69, 293-324.

Hong, B., Li, Z., and Minor, D., 2016. Corporate governance and executive compensation for corporate social responsibility. *Journal of Business Ethics* 136, 199-213.

Ioannou, I., and Serafeim, G., 2015. The impact of corporate social responsibility on investment recommendations: analysts' perceptions and shifting institutional logics. *Strategic Management Journal* 36, 1053-1081.

Krueger, P., 2015. Corporate goodness and shareholder wealth. *Journal of Financial Economics* 115, 304–329.

Li, Z. and Wang, L., 2016. Executive compensation incentives contingent on long-term accounting performance. *The Review of Financial Studies* 29, 1586-1633.

Lins, K.V., Servaes, H., and Tamayo, A., 2017. Social capital, trust, and firm performance: the value of corporate social responsibility during the financial crisis. *Journal of Finance* 72, 1785–1824.

Liu, C., Xu, L., Yang, H. and Zhang, W., 2023. Prosocial CEOs and the cost of debt: Evidence from syndicated loan contracts. *Journal of Corporate Finance* 78, 102316,

Lerner, J. and Wulf, J., 2007. Innovation and incentives: Evidence from corporate R&D. *the Review of Economics and Statistics* 89, 634-644.

Maas, K., 2018. Do corporate social performance targets in executive compensation contribute to corporate social performance? *Journal of Business Ethics* 148, 573-585.

Mao, C.X. and Zhang, C., 2018. Managerial risk-taking incentive and firm innovation: Evidence from FAS 123R. *Journal of Financial and Quantitative Analysis* 53, 867-898.

Marshall, A., Rao, S., Roy, P.P. and Thapa, C., 2022. Mandatory corporate social responsibility and foreign institutional investor preferences. *Journal of Corporate Finance* 76, 102261,

Masulis, R.W., and Mobbs, S., 2014. Independent director incentives: where do talented directors spend their limited time and energy? *Journal of Financial Economics* 111, 406-429.

Masulis, R., and Reza, S., 2015. Agency problems of corporate philanthropy. *Review Financial Studies* 28, 592–636.

Masulis, R.W., and Reza, S.W., 2019. Private benefits and corporate investment and financing decisions: the case of corporate philanthropy. Working Paper.

McGuire, J.B., Sundgren, A., and Schneeweis, T., 1988. Corporate social responsibility and firm financial performance. *Academy of Management Journal* 31, 854-872.

McWilliams, A., and Siegel, D., 2000. Corporate social responsibility and financial performance: correlation or misspecification? *Strategic Management Journal* 21, 603-609.

Orlitzky, M., Schmidt, F.L. and Rynes, S.L., 2003. Corporate social and financial performance: A meta-analysis. *Organization Studies* 24, 403-441.

Petrovits, C.M., 2006. Corporate-sponsored foundations and earnings management. *Journal of Accounting and Economics* 41, 335-362.

Prior, D., Surroca, J. and Tribó, J.A., 2008. Are socially responsible managers really ethical? Exploring the relationship between earnings management and corporate social responsibility. *Corporate governance: An international review* 16, 160-177.

Servaes, H., and Tamayo, A., 2013. The impact of corporate social responsibility on firm value: The role of customer awareness. *Management Science* 59, 1045-1061.

Weisbach, M.S., 1988. Outside directors and CEO turnover. *Journal of Financial Economics* 20, 431-460.

Xi, D., Wu, Y., Wang, X. and Fu, Z., 2023. Corporate social responsibility and excess perks. *Journal of Empirical Finance* 74. https://doi.org/10.1016/j.jempfin.2023.101443

Appendix: Variable Definitions

Variable Name	Definition
CSR Measures	
Raw CSR	The sum of the differences between strengths and concerns along six dimensions: environment, community, diversity, employee relations, human rights, and product quality and safety.
Raw Strengths	The sum of strengths along six dimensions: environment, community, diversity, employee relations, human rights, and product quality and safety.
Raw Concerns	The sum of concerns along six dimensions: environment, community, diversity, employee relations, human rights, and product quality and safety.
Scaled CSR	The sum of the scaled differences between strengths and concerns along six dimensions: environment, community, diversity, employee relations, human rights, and product quality and safety. The category strength (concern) ratio is the number of strengths (concerns) for each firm year within each CSR category divided by the maximum possible number of strengths (concerns) in that category year.
Scaled Strengths	The sum of scaled strengths along six dimensions: environment, community, diversity, employee relations, human rights, and product quality and safety.
Scaled Concerns	The sum of scaled concerns along six dimensions: environment, community, diversity, employee relations, human rights, and product quality and safety.
Incentive Measures	
PCEQ	An indicator that takes the value of one if the firm uses any accounting or stock price conditions in stock and option awards to the CEO, and 0 otherwise.
PCEQ_ACCT	An indicator that takes the value of one if the firm uses accounting (earnings or sales) conditions in stock and option awards to the CEO, and 0 otherwise.
PCEQ_STKPRC	An indicator that takes the value of one if the firm uses stock price conditions in stock and option awards to the CEO, and 0 otherwise.
PROPPCEQ	Proportion of total CEO compensation tied to accounting or stock price conditions in stock and stock option awards to the CEO.
PROPPCEQ_ACCT	Proportion of total CEO compensation tied to accounting (earnings or sales) conditions in stock and stock option awards to the CEO.
PROPPCEQ_STKPRC	Proportion of total CEO compensation tied to stock price conditions in stock and stock option awards to the CEO.
CEO Delta	The change in the dollar value of a CEO's stock and options portfolio with respect to a 1% change in the stock price. We use the natural logarithm term in regressions.
CEO Vega	The change in the dollar value of a CEO's stock and options portfolio with respect to a 1% change in the annualized standard deviation of stock returns. We use the natural logarithm term in regressions.
Total CEO Pay	The total dollar amount of CEO compensation, including salary, bonus, time-vesting options and stocks, and stocks and options tied to accounting or stock price conditions. We use the natural logarithm term in regressions.
Control Measures	
Size (in billions)	Total assets in 2016 dollars. We use the natural logarithm term in regressions.
Q	The market value of equity plus the book value of liabilities scaled by the book value of total assets.
Profitability	Income before extraordinary items divided by total assets.
Cash Holding	Cash and short-term investments divided by total assets.

Free Cash Flow	Operating cash flow minus capital expenditures minus change in net working capital divided by total assets.
Leverage	The book value of total liabilities divided by total assets.
Capital Expenditures	Capital expenditures divided by total assets.
Product Concentration	10-K-text–based network industry concentration data from the Hoberg and Phillips Data Library at Dartmouth College.
Independent Directors	Percentage of independent directors on a board.
Other Measures	
Product Market Fluidity	10-K–based product market fluidity data from the Hoberg and Phillips Data Library at Dartmouth College.
Unemployment Insurance	State-level unemployment insurance data provided by the U.S. Department of Labor.
Number of Financial Analysts	Number of financial analysts covering the firm.
Volatility	Standard deviation of stock return.
Bid-ask Spread	The annual average of daily bid-ask spread.
Stock Return	Two year buy-and-hold abnormal returns, measured as raw buy-and hold returns (compounded monthly returns) net of matched Fama-French 100 size and book-to-market portfolio returns (buy and hold value-weighted returns).

Table 1. Summary Statistics

In this table, we present summary statistics for the samples utilized in our study. The main sample contains 10,274 firm-year observations spanning from 1998 through 2018. See the Appendix for detailed variable explanations.

Variable Name	Mean	Std. Dev.	Q1	Median	Q3
Raw CSR	1.013	2.991	-1	1	2
Raw Strengths	2.534	2.887	0	2	4
Raw Concerns	1.521	1.917	0	1	2
Scaled CSR	0.073	0.642	-0.325	0	0.356
Scaled Strengths	0.446	0.564	0	0.250	0.619
Scaled Concerns	0.373	0.469	0	0.250	0.533
PCEQ	0.467	0.499	0	0	1
PCEQ_ACCT	0.364	0.481	0	0	1
PCEQ_STKPRC	0.241	0.428	0	0	0
PROPPCEQ	0.176	0.228	0	0	0.338
PROPPCEQ_ACCT	0.130	0.206	0	0	0.250
PROPPCEQ_STKPRC	0.083	0.169	0	0	0
CEO Delta (in thousands)	94.451	350.227	15.969	39.537	81.257
CEO Vega (in thousands)	34.085	104.490	0.000	0.000	32.163
CEO Total Pay (in millions)	9.461	24.791	3.490	6.092	10.200
Size (in billions)	20.350	43.197	2.757	6.598	19.132
Market-to-book	1.942	1.588	0.984	1.468	2.320
Profitability	0.059	0.100	0.028	0.059	0.098
Cash Holding	0.146	0.161	0.029	0.085	0.209
Free Cash Flow	0.065	0.084	0.023	0.063	0.107
Leverage	0.253	0.211	0.120	0.236	0.352
Capital Expenditures	0.051	0.050	0.020	0.037	0.064
Product Concentration	0.270	0.250	0.095	0.178	0.357
Independent Directors	0.788	0.146	0.714	0.818	0.900

Table 2. Correlation of Variables

In this table, we report pairwise correlation coefficients of the key variables. P-values are reported in the parentheses. See the Appendix for detailed variable explanations.

	Raw CSR	Scaled CSR	PCEQ	PCEQ_ ACCT	PCEQ_S TKPRC	PROPP CEQ	PROPP CEQ_ ACCT	PROPP CEQ_ST KPRC	CEO Delta	CEO Vega	CEO Total Pay	Size	Q	Profita bility	Cash Holding	Free Cash Flow	Levera ge	Capital Expendit ures	Product Concentr ation
Scaled CSR	0.886																		
	(0.000)																		
PCEQ	0.219	0.206																	
	(0.000)	(0.000)																	
PCEQ_ACCT	0.226	0.195	0.808																
	(0.000)	(0.000)	(0.000)																
PCEQ_STKPRC	0.142	0.150	0.603	0.245															
	(0.000)	(0.000)	(0.000)	(0.000)															
PROPPCEQ	0.221	0.201	0.826	0.704	0.542														
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)														
PROPPCEQ_ACCT	0.204	0.169	0.676	0.836	0.204	0.835													
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)													
PROPPCEQ_STKPRC	0.154	0.149	0.526	0.222	0.873	0.625	0.275												
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)												
CEO Delta	0.119	0.093	0.285	0.237	0.186	0.272	0.229	0.172											
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)											
CEO Vega	-0.127	-0.120	-0.341	-0.295	-0.217	-0.355	-0.290	-0.232	0.343										
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)										
CEO Total Pay	0.226	0.173	0.284	0.257	0.184	0.326	0.292	0.198	0.527	0.069									
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)									
Size	0.258	0.156	0.276	0.209	0.270	0.260	0.197	0.266	0.213	-0.109	0.509								
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)								
Q	0.087	0.082	-0.160	-0.093	-0.141	-0.112	-0.064	-0.123	0.016	0.149	0.059	-0.297							
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.114)	(0.000)	(0.000)	(0.000)							
Profitability	0.079	0.048	-0.012	0.032	-0.069	-0.006	0.034	-0.061	-0.024	-0.028	0.042	-0.048	0.365						
	(0.000)	(0.000)	(0.209)	(0.001)	(0.000)	(0.527)	(0.001)	(0.000)	(0.014)	(0.005)	(0.000)	(0.000)	(0.000)						
Cash Holding	0.082	0.064	-0.142	-0.092	-0.133	-0.102	-0.069	-0.115	-0.010	0.111	-0.037	-0.355	0.396	0.040					
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.304)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)					
Free Cash Flow	0.138	0.097	-0.020	0.046	-0.095	-0.006	0.050	-0.086	-0.012	-0.001	0.052	-0.154	0.424	0.552	0.227				
	(0.000)	(0.000)	(0.043)	(0.000)	(0.000)	(0.553)	(0.000)	(0.000)	(0.242)	(0.946)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)				
Leverage	-0.008	0.009	0.090	0.067	0.098	0.084	0.064	0.087	0.031	-0.045	0.055	0.165	-0.051	-0.105	-0.242	-0.117			
	(0.403)	(0.383)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.002)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)			
Capital Expenditures	-0.080	-0.044	-0.057	-0.118	0.036	-0.046	-0.099	0.036	-0.009	0.004	-0.048	0.034	0.007	0.002	-0.200	-0.354	0.011		
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.348)	(0.685)	(0.000)	(0.001)	(0.452)	(0.818)	(0.000)	(0.000)	(0.285)		
Product Concentration	0.016	0.009	0.022	0.072	-0.076	0.005	0.046	-0.069	-0.040	-0.056	-0.018	-0.073	0.021	0.082	-0.108	0.108	-0.003	-0.147	
	(0.107)	(0.340)	(0.028)	(0.000)	(0.000)	(0.610)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.032)	(0.000)	(0.000)	(0.000)	(0.770)	(0.000)	
Independent Directors	0.096	0.085	0.250	0.190	0.195	0.202	0.143	0.176	0.031	-0.211	0.082	0.076	-0.092	-0.059	0.012	-0.042	0.130	-0.059	0.013
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.002)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.242)	(0.000)	(0.000)	(0.000)	(0.204)

Table 3. Effect of P-c Equity Awards on CSR

In this table we report our baseline regression results. For columns (1) to (4), the dependent variable is the raw CSR score. For columns (5) to (8), the dependent variable is the scaled CSR score. We use OLS estimation methods while controlling for firm and state×year fixed effects in all models. Standard errors are clustered at both firm and the year levels and reported in parentheses. ***, **, * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively. See Appendix for detailed variable explanations.

	(1) Raw CSR	(2) Raw CSR	(3) Raw CSR	(4) Raw CSR	(5) Scaled CSR	(6) Scaled CSR	(7) Scaled CSR	(8) Scaled CSR
PCEQ	0.777***				0.178***			
	(0.143)				(0.037)			
PCEQ_ACCT		0.673***				0.138***		
		(0.116)				(0.030)		
PCEQ_STKPRC		0.632***				0.170***		
		(0.204)				(0.056)		
PROPPCEQ			1.510***				0.334***	
			(0.317)				(0.087)	
PROPPCEQ_ACCT				1.191***				0.231***
				(0.259)				(0.069)
PROPPCEQ_STKPRC				1.339**				0.325**
				(0.473)				(0.126)
CEO Delta	0.052***	0.048***	0.061***	0.061***	0.009**	0.008*	0.011**	0.012**
	(0.017)	(0.016)	(0.017)	(0.016)	(0.004)	(0.004)	(0.004)	(0.004)
CEO Vega	-0.074***	-0.069***	-0.075***	-0.075***	-0.015**	-0.014**	-0.015**	-0.015**
	(0.024)	(0.024)	(0.025)	(0.025)	(0.006)	(0.006)	(0.006)	(0.006)
Total CEO Pay	-0.023	-0.030	-0.058	-0.055	0.003	0.001	-0.004	-0.003
	(0.063)	(0.063)	(0.064)	(0.065)	(0.016)	(0.015)	(0.016)	(0.016)
Size	0.584***	0.570***	0.637***	0.638***	0.133***	0.129***	0.145***	0.146***
	(0.123)	(0.121)	(0.125)	(0.124)	(0.032)	(0.030)	(0.032)	(0.032)
Q	0.058	0.053	0.059	0.056	0.020	0.019	0.020	0.020
	(0.048)	(0.047)	(0.048)	(0.048)	(0.014)	(0.014)	(0.014)	(0.014)
Profitability	0.102	0.129	0.112	0.113	-0.047	-0.037	-0.045	-0.043
	(0.314)	(0.300)	(0.333)	(0.328)	(0.131)	(0.127)	(0.136)	(0.134)
Cash Holding	-0.189	-0.178	-0.151	-0.158	-0.064	-0.059	-0.056	-0.056

	(0.420)	(0.414)	(0.418)	(0.416)	(0.098)	(0.096)	(0.098)	(0.097)
Free Cash Flow	1.298**	1.293**	1.304**	1.328**	0.062	0.062	0.064	0.071
	(0.499)	(0.488)	(0.490)	(0.480)	(0.148)	(0.144)	(0.147)	(0.145)
Leverage	0.753**	0.678*	0.730*	0.698*	0.214**	0.195**	0.210**	0.205**
	(0.346)	(0.334)	(0.352)	(0.345)	(0.092)	(0.086)	(0.092)	(0.088)
Capital Expenditures	0.250	0.103	0.209	0.158	-0.374	-0.406	-0.383	-0.392
	(1.991)	(1.958)	(1.988)	(1.970)	(0.585)	(0.577)	(0.587)	(0.585)
Product Concentration	-0.196	-0.211	-0.171	-0.160	-0.039	-0.042	-0.033	-0.030
	(0.203)	(0.204)	(0.205)	(0.208)	(0.046)	(0.047)	(0.047)	(0.048)
Independent Directors	0.887**	0.889**	1.093***	1.078**	0.137*	0.136*	0.184**	0.180**
	(0.362)	(0.370)	(0.377)	(0.378)	(0.076)	(0.077)	(0.080)	(0.079)
State-Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,274	10,274	10,274	10,274	10,274	10,274	10,274	10,274
Adj. R-squared	0.566	0.569	0.564	0.566	0.433	0.438	0.431	0.433

Table 4. CSR Incentivized by P-c Equity Awards and Future Firm Performance

In this table, we report the results of estimations of the joint effects of CSR investments and CEO p-c equity awards on future firm performance. We use the Q ratio over three years as the measure of future performance in Panel A, three-year stock return as the measure of future stock performance in Panel B, and three-year ROA as the measure of future operating performance in Panel C. OLS estimation methods are used to control for firm and state-year fixed effects. Standard errors are clustered at both firm and year levels and reported in parentheses. ***, **, * correspond to statistical significances at the 1%, 5%, and 10% levels, respectively. See Appendix for detailed variable explanations.

Panel A. Tobin's Q in three years

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	CSR Measure: Raw CSR	CSR Measure: Raw CSR	CSR Measure: Raw CSR	CSR Measure: Raw CSR	CSR Measure: Scaled CSR	CSR Measure: Scaled CSR	CSR Measure: Scaled CSR	CSR Measure: Scaled CSR
CSR Measure	0.011	0.013	0.010	0.014	0.053	0.061	0.038	0.057
	(0.012)	(0.011)	(0.011)	(0.010)	(0.062)	(0.057)	(0.057)	(0.053)
PCEQ	0.132***				0.147***			
	(0.043)				(0.046)			
PCEQ_ACCT		0.058				0.080*		
		(0.040)				(0.041)		
PCEQ_STKPRC		0.144**				0.140**		
		(0.051)				(0.056)		
PROPPCEQ			0.261***				0.313***	
			(0.089)				(0.102)	
PROPPCEQ_ACCT				0.079				0.148
				(0.081)				(0.090)
PROPPCEQ_STKPRC				0.287**				0.265**
				(0.105)				(0.118)
PCEQ * CSR Measure	0.030***				0.111***			
	(0.008)				(0.037)			
PCEQ_ACCT * CSR Measure		0.028***				0.076**		
		(0.008)				(0.037)		

PCEQ_STKPRC * CSR Measure		0.011				0.057		
		(0.008)				(0.039)		
PROPPCEQ * CSR Measure			0.068***				0.242***	
			(0.016)				(0.075)	
PROPPCEQ_ACCT * CSR Measure				0.063***				0.152*
				(0.018)				(0.087)
PROPPCEQ_STKPRC * CSR Measure				0.018				0.138
				(0.020)				(0.099)
CEO Delta	0.016**	0.017**	0.017**	0.019***	0.017**	0.017***	0.018**	0.019***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
CEO Vega	-0.013**	-0.013**	-0.012*	-0.014**	-0.013**	-0.014**	-0.013*	-0.014**
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Total CEO Pay	-0.025	-0.023	-0.033	-0.027	-0.025	-0.024	-0.034	-0.028
	(0.033)	(0.033)	(0.033)	(0.033)	(0.032)	(0.033)	(0.033)	(0.033)
Size	-0.222**	-0.220**	-0.210**	-0.209**	-0.218**	-0.217**	-0.207**	-0.205**
	(0.081)	(0.082)	(0.083)	(0.083)	(0.082)	(0.082)	(0.083)	(0.084)
Q	0.253***	0.252***	0.254***	0.252***	0.253***	0.251***	0.253***	0.252***
	(0.044)	(0.044)	(0.044)	(0.044)	(0.044)	(0.044)	(0.044)	(0.044)
Profitability	0.133	0.143	0.136	0.140	0.146	0.153	0.150	0.152
	(0.238)	(0.238)	(0.238)	(0.237)	(0.239)	(0.238)	(0.238)	(0.237)
Cash Holding	0.565	0.577	0.574	0.575	0.569	0.584	0.577	0.584
	(0.403)	(0.405)	(0.401)	(0.403)	(0.404)	(0.406)	(0.401)	(0.403)
Free Cash Flow	-0.064	-0.066	-0.060	-0.061	-0.053	-0.053	-0.048	-0.046
	(0.495)	(0.495)	(0.497)	(0.498)	(0.496)	(0.495)	(0.498)	(0.500)
Leverage	0.680**	0.676**	0.668*	0.678*	0.692**	0.686**	0.681**	0.689**
	(0.322)	(0.321)	(0.319)	(0.323)	(0.325)	(0.323)	(0.322)	(0.325)
Capital Expenditures	-1.176*	-1.181*	-1.183*	-1.166*	-1.160*	-1.177*	-1.170*	-1.166*
	(0.664)	(0.641)	(0.660)	(0.648)	(0.668)	(0.650)	(0.664)	(0.656)
Product Concentration	0.107	0.108	0.111	0.113	0.107	0.109	0.111	0.114
	(0.077)	(0.077)	(0.077)	(0.076)	(0.078)	(0.077)	(0.077)	(0.076)
Independent Directors	-0.101	-0.089	-0.061	-0.062	-0.092	-0.080	-0.053	-0.052
	(0.140)	(0.143)	(0.140)	(0.142)	(0.140)	(0.143)	(0.140)	(0.141)
State-Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,488	8,488	8,488	8,488	8,488	8,488	8,488	8,488
Adj. R-squared	0.661	0.661	0.662	0.661	0.661	0.661	0.661	0.661

Panel B. Three-year stock returns

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	CSR Measure: Raw CSR	CSR Measure: Raw CSR	CSR Measure: Raw CSR	CSR Measure: Raw CSR	CSR Measure: Scaled CSR	CSR Measure: Scaled CSR	CSR Measure: Scaled CSR	CSR Measure: Scaled CSR
CSR Measure	-0.011	-0.007	-0.003	-0.001	-0.050	-0.034	-0.033	-0.024
	(0.013)	(0.012)	(0.012)	(0.011)	(0.058)	(0.054)	(0.055)	(0.052)
PCEQ	0.034				0.066			
	(0.061)				(0.055)			
PCEQ_ACCT		0.010				0.044		
		(0.059)				(0.054)		
PCEQ_STKPRC		-0.004				0.012		
		(0.050)				(0.046)		
PROPPCEQ			0.075				0.146	
			(0.100)				(0.092)	
PROPPCEQ_ACCT				0.031				0.107
				(0.093)				(0.090)
PROPPCEQ_STKPRC				0.025				0.051
				(0.119)				(0.111)
PCEQ * CSR Measure	0.037***				0.100**			
	(0.009)				(0.044)			
PCEQ_ACCT * CSR Measure		0.030***				0.100**		
		(0.009)				(0.045)		
PCEQ_STKPRC * CSR Measure		0.018*				0.031		
		(0.010)				(0.047)		
PROPPCEQ * CSR Measure			0.072***				0.197**	
			(0.019)				(0.090)	

PROPPCEQ_ACCT * CSR Measure				0.062***				0.191*
				(0.021)				(0.103)
PROPPCEQ_STKPRC * CSR Measure				0.042*				0.104
				(0.025)				(0.119)
CEO Delta	-0.013	-0.011	-0.012	-0.011	-0.012	-0.011	-0.012	-0.011
	(0.019)	(0.019)	(0.020)	(0.021)	(0.019)	(0.019)	(0.020)	(0.021)
CEO Vega	-0.007	-0.008	-0.007	-0.008	-0.008	-0.008	-0.008	-0.008
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Total CEO Pay	0.004	0.005	-0.001	0.001	0.002	0.004	-0.002	-0.000
	(0.049)	(0.049)	(0.048)	(0.047)	(0.048)	(0.048)	(0.047)	(0.047)
Size	-0.652***	-0.649***	-0.647***	-0.647***	-0.648***	-0.645***	-0.643***	-0.642***
	(0.111)	(0.111)	(0.113)	(0.114)	(0.112)	(0.112)	(0.114)	(0.115)
Q	-0.233***	-0.234***	-0.233***	-0.234***	-0.233***	-0.234***	-0.233***	-0.234***
	(0.041)	(0.041)	(0.041)	(0.041)	(0.041)	(0.041)	(0.041)	(0.041)
Profitability	-0.936	-0.933	-0.931	-0.931	-0.928	-0.927	-0.926	-0.927
	(0.625)	(0.623)	(0.624)	(0.623)	(0.624)	(0.622)	(0.623)	(0.622)
Cash Holding	-0.578*	-0.581*	-0.570*	-0.579*	-0.574*	-0.572*	-0.567*	-0.570*
	(0.291)	(0.291)	(0.291)	(0.290)	(0.292)	(0.292)	(0.293)	(0.292)
Free Cash Flow	-0.202	-0.210	-0.208	-0.209	-0.202	-0.207	-0.204	-0.204
	(0.375)	(0.375)	(0.375)	(0.375)	(0.378)	(0.379)	(0.378)	(0.379)
Leverage	0.754***	0.762***	0.753***	0.758***	0.776***	0.782***	0.772***	0.776***
	(0.224)	(0.224)	(0.222)	(0.221)	(0.224)	(0.224)	(0.221)	(0.220)
Capital Expenditures	-2.418**	-2.412**	-2.426**	-2.420**	-2.419**	-2.416**	-2.426**	-2.425**
	(1.132)	(1.117)	(1.127)	(1.122)	(1.134)	(1.121)	(1.130)	(1.126)
Product Concentration	0.001	0.005	0.006	0.007	0.000	0.003	0.002	0.004
	(0.080)	(0.080)	(0.083)	(0.083)	(0.081)	(0.081)	(0.083)	(0.083)
Independent Directors	0.117	0.131	0.139	0.140	0.126	0.140	0.145	0.147
	(0.165)	(0.165)	(0.163)	(0.163)	(0.165)	(0.166)	(0.164)	(0.164)
State-Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,708	8,708	8,708	8,708	8,708	8,708	8,708	8,708
Adj. R-squared	0.109	0.109	0.109	0.109	0.108	0.108	0.108	0.108

Panel C. Three-year Accounting Performance (ROA)

	(1) CSR Measure: Raw CSR	(2) CSR Measure: Raw CSR	(3) CSR Measure: Raw CSR	(4) CSR Measure: Raw CSR	(5) CSR Measure: Scaled CSR	(6) CSR Measure: Scaled CSR	(7) CSR Measure: Scaled CSR	(8) CSR Measure: Scaled CSR
CSR Measure	-0.034	-0.011	-0.020	0.001	-0.262	-0.130	-0.341	-0.221
	(0.066)	(0.069)	(0.064)	(0.066)	(0.353)	(0.356)	(0.307)	(0.322)
PCEQ	0.467				0.537			
	(0.314)				(0.316)			
PCEQ_ACCT		0.324				0.414		
		(0.309)				(0.302)		
PCEQ_STKPRC		0.006				0.007		
		(0.380)				(0.396)		
PROPPCEQ			0.662				0.819	
			(0.561)				(0.552)	
PROPPCEQ_ACCT				0.483				0.661
				(0.582)				(0.581)
PROPPCEQ_STKPRC				0.132				0.035
				(0.860)				(0.838)
PCEQ * CSR Measure	0.150**				0.368			
	(0.059)				(0.285)			
PCEQ_ACCT * CSR Measure		0.130**				0.283		
		(0.060)				(0.290)		
PCEQ_STKPRC * CSR Measure		0.028				-0.022		
		(0.064)				(0.302)		
PROPPCEQ * CSR Measure			0.320***				1.056*	
			(0.121)				(0.585)	
PROPPCEQ_ACCT * CSR Measure				0.278**				0.785
				(0.141)				(0.675)
PROPPCEQ_STKPRC * CSR Measure				0.132				0.567
								(0.771)
CEO Delta	-0.037	-0.026	-0.027	-0.021	-0.034	-0.024	-0.024	-0.018

	(0.047)	(0.045)	(0.048)	(0.047)	(0.047)	(0.045)	(0.047)	(0.047)
CEO Vega	0.045	0.039	0.042	0.036	0.042	0.036	0.039	0.033
	(0.035)	(0.034)	(0.035)	(0.035)	(0.034)	(0.034)	(0.035)	(0.034)
Total CEO Pay	-0.288	-0.272	-0.301	-0.285	-0.293	-0.279	-0.307	-0.292
	(0.214)	(0.217)	(0.224)	(0.220)	(0.213)	(0.216)	(0.223)	(0.220)
Size	-2.105***	-2.081***	-2.060***	-2.056***	-2.082***	-2.056***	-2.034***	-2.024***
	(0.511)	(0.505)	(0.508)	(0.510)	(0.514)	(0.508)	(0.513)	(0.515)
Q	0.663*	0.658*	0.661*	0.657*	0.664*	0.659*	0.664*	0.660*
	(0.348)	(0.346)	(0.347)	(0.346)	(0.348)	(0.347)	(0.348)	(0.347)
Profitability	-3.895	-3.896	-3.872	-3.873	-3.917	-3.934	-3.899	-3.904
	(3.188)	(3.177)	(3.182)	(3.171)	(3.174)	(3.166)	(3.166)	(3.160)
Cash Holding	0.354	0.336	0.395	0.368	0.358	0.362	0.388	0.382
	(2.548)	(2.554)	(2.542)	(2.551)	(2.548)	(2.551)	(2.541)	(2.546)
Free Cash Flow	12.024***	11.989***	12.028***	11.995***	12.038***	12.026***	12.063***	12.047***
	(3.845)	(3.827)	(3.848)	(3.832)	(3.836)	(3.833)	(3.839)	(3.838)
Leverage	2.588**	2.651**	2.593**	2.638**	2.671**	2.721**	2.661**	2.701**
	(1.208)	(1.203)	(1.208)	(1.224)	(1.228)	(1.217)	(1.221)	(1.235)
Capital Expenditures	0.157	0.208	0.130	0.186	0.167	0.178	0.156	0.160
	(10.140)	(10.015)	(10.115)	(10.051)	(10.058)	(9.970)	(10.032)	(9.992)
Product Concentration	-0.280	-0.257	-0.251	-0.242	-0.291	-0.268	-0.263	-0.249
	(0.748)	(0.745)	(0.746)	(0.745)	(0.748)	(0.744)	(0.745)	(0.744)
Independent Directors	0.318	0.419	0.479	0.496	0.344	0.444	0.509	0.532
	(1.214)	(1.234)	(1.241)	(1.236)	(1.208)	(1.232)	(1.233)	(1.230)
State-Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518
Adj. R-squared	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372

Table 5. Endogeneity Issues

In this table, we report the test results addressing endogeneity issues. Panel A presents regressions of changes around FAS 123-R in CSR scores on changes in p-c equity awards. We calculate firm-level changes in the average levels of the variables for the periods 2006–2009 and 2002–2005, and report OLS estimates from regressions of changes in CSR scores. For columns (1) to (4), the dependent variable is the change in raw CSR score. For columns (5) to (8), the dependent variable is the change in scaled CSR score. We control for industry (two-digit SIC) and state fixed effects in all models. Standard errors are clustered at both industry and state levels and reported in parentheses. Panel B presents the results with the instrumental variable approach. In Panel B.1, we use 2SLS estimation and treat p-c equity awards as endogenous variables, instrumented with the industry averages of these award variables. In Panel B.2, we use 3SLS models and treat p-c equity awards with accounting and stock price conditions as endogenous variables, instrumented with the industry averages of these award variables. We use OLS estimation methods while controlling for firm and state×year fixed effects in all models. ***, **, * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively. See Appendix for detailed variable explanations.

Panel A. Change regressions around FAS 123-R

	(1) ΔRaw CSR	(2) ΔRaw CSR	(3) ΔRaw CSR	(4) ΔRaw CSR	(5) ΔScaled CSR	(6) ΔScaled CSR	(7) ΔScaled CSR	(8) ΔScaled CSR
ΔPCEQ	1.065***				0.167***			
	(0.181)				(0.036)			
ΔPCEQ_ACCT		0.832***				0.132***		
		(0.185)				(0.037)		
ΔPCEQ_STKPRC		0.992***				0.161***		
		(0.275)				(0.052)		
ΔPROPPCEQ			2.403***				0.368***	
			(0.391)				(0.077)	
ΔPROPPCEQ_ACCT				1.995***				0.301***
				(0.444)				(0.087)
ΔPROPPCEQ_STKPRC				1.670**				0.270**
				(0.670)				(0.129)
ΔCEO Delta	0.059**	0.061**	0.053*	0.057*	0.012**	0.012**	0.011**	0.011**
	(0.027)	(0.029)	(0.027)	(0.028)	(0.005)	(0.005)	(0.005)	(0.005)
ΔCEO Vega	-0.021*	-0.024*	-0.011	-0.014	-0.004	-0.004*	-0.002	-0.003
	(0.011)	(0.012)	(0.012)	(0.012)	(0.002)	(0.002)	(0.002)	(0.002)

ΔTotal CEO Pay	-0.104	-0.098	-0.144	-0.151	-0.019	-0.018	-0.024	-0.026
	(0.142)	(0.149)	(0.140)	(0.143)	(0.029)	(0.030)	(0.028)	(0.029)
ΔSize	-0.161	-0.202	-0.168	-0.203	-0.050	-0.056	-0.051	-0.056
	(0.204)	(0.207)	(0.223)	(0.239)	(0.040)	(0.038)	(0.042)	(0.043)
ΔQ	-0.139	-0.137	-0.165	-0.157	-0.024	-0.024	-0.028	-0.026
	(0.105)	(0.109)	(0.099)	(0.103)	(0.020)	(0.021)	(0.019)	(0.020)
ΔProfitability	2.510*	2.501**	1.990*	2.093*	0.446*	0.446*	0.364	0.378
	(1.249)	(1.168)	(1.135)	(1.099)	(0.247)	(0.229)	(0.236)	(0.226)
ΔCash Holding	-0.273	-0.276	-0.257	-0.289	-0.086	-0.086	-0.083	-0.087
	(0.806)	(0.848)	(0.849)	(0.902)	(0.131)	(0.140)	(0.140)	(0.150)
ΔFree Cash Flow	0.313	-0.008	0.153	-0.025	0.072	0.021	0.045	0.017
	(1.690)	(1.646)	(1.633)	(1.588)	(0.329)	(0.326)	(0.325)	(0.324)
ΔLeverage	0.349	0.190	0.410	0.326	0.070	0.044	0.079	0.066
	(0.597)	(0.559)	(0.550)	(0.546)	(0.120)	(0.117)	(0.112)	(0.112)
ΔCapital Expenditures	1.548	1.325	1.614	1.411	0.449	0.412	0.462	0.434
	(2.652)	(2.547)	(2.484)	(2.319)	(0.482)	(0.468)	(0.458)	(0.438)
ΔProduct Concentration	-0.552	-0.519	-0.526	-0.472	-0.112	-0.107	-0.108	-0.100
	(0.436)	(0.412)	(0.442)	(0.418)	(0.080)	(0.077)	(0.080)	(0.075)
ΔIndependent Directors	0.464	0.505	0.373	0.396	0.064	0.070	0.051	0.055
	(0.713)	(0.707)	(0.737)	(0.722)	(0.125)	(0.124)	(0.130)	(0.127)
State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	478	478	478	478	478	478	478	478
Adj. R-squared	0.128	0.129	0.128	0.117	0.105	0.107	0.101	0.094

Panel B. Instrumental Variable Approach

Panel B.1. Instrumental Variable Approach with 2SLS Estimations

	(1) First Stage PCEQ	(2) Second Stage Raw CSR	(3) First Stage PROPPCEQ	(4) Second Stage Raw CSR	(5) First Stage PCEQ	(6) Second Stage Scaled CSR	(7) First Stage PROPPCEQ	(8) Second Stage Scaled CSR
Industry PCEQ	0.810***				0.810***			
	(0.016)				(0.016)			
PCEQ		2.941***				0.705***		
		(0.137)				(0.034)		
Industry PROPPCEQ			0.732***				0.732***	
			(0.017)				(0.017)	
PROPPCEQ				7.577***				1.840***
				(0.359)				(0.088)
CEO Delta	0.034***	-0.052***	0.014***	-0.057***	0.034***	-0.016***	0.014***	-0.018***
	(0.001)	(0.011)	(0.001)	(0.012)	(0.001)	(0.003)	(0.001)	(0.003)
CEO Vega	-0.015***	-0.002	-0.010***	0.026***	-0.015***	0.003*	-0.010***	0.010***
	(0.001)	(0.007)	(0.000)	(0.008)	(0.001)	(0.002)	(0.000)	(0.002)
Total CEO Pay	0.031***	-0.163***	0.041***	-0.399***	0.031***	-0.031***	0.041***	-0.089***
	(0.006)	(0.040)	(0.003)	(0.046)	(0.006)	(0.010)	(0.003)	(0.011)
Size	-0.019**	0.306***	-0.022***	0.446***	-0.019**	0.065***	-0.022***	0.098***
	(0.008)	(0.056)	(0.004)	(0.057)	(0.008)	(0.014)	(0.004)	(0.014)
Q	-0.018***	0.071***	-0.009***	0.080***	-0.018***	0.023***	-0.009***	0.026***
	(0.003)	(0.022)	(0.002)	(0.023)	(0.003)	(0.005)	(0.002)	(0.006)
Profitability	-0.006	0.142	-0.004	0.208	-0.006	-0.037	-0.004	-0.021
	(0.040)	(0.285)	(0.019)	(0.297)	(0.040)	(0.070)	(0.019)	(0.073)
Cash Holding	0.049	-0.347	0.026	-0.228	0.049	-0.103	0.026	-0.075
	(0.041)	(0.293)	(0.020)	(0.305)	(0.041)	(0.072)	(0.020)	(0.075)
Free Cash Flow	-0.018	1.060**	0.021	0.985**	-0.018	0.004	0.021	-0.015
	(0.058)	(0.416)	(0.028)	(0.434)	(0.058)	(0.102)	(0.028)	(0.107)
Leverage	-0.009	0.376*	0.030**	0.093	-0.009	0.122**	0.030**	0.052
	(0.028)	(0.198)	(0.013)	(0.208)	(0.028)	(0.048)	(0.013)	(0.051)
Capital Expenditures	0.002	0.132	0.016	-0.124	0.002	-0.403*	0.016	-0.465**

	(0.120)	(0.858)	(0.058)	(0.894)	(0.120)	(0.210)	(0.058)	(0.220)
Product Concentration	0.053***	-0.408***	0.017*	-0.374**	0.053***	-0.090***	0.017*	-0.083**
	(0.020)	(0.140)	(0.009)	(0.146)	(0.020)	(0.034)	(0.009)	(0.036)
Independent Directors	0.118***	0.014	-0.023	0.661***	0.118***	-0.076	-0.023	0.077
	(0.030)	(0.217)	(0.014)	(0.220)	(0.030)	(0.053)	(0.014)	(0.054)
State-Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,274	10,274	10,274	10,274	10,274	10,274	10,274	10,274
Chi-squared	22689		19356		22689		19356	
Adj. R-squared	0.688	0.560	0.653	0.522	0.688	0.427	0.653	0.375

Panel B.2. Instrumental Variable Approach with 3SLS Estimations

	(1) First Stage PCEQ_ACCT	(2) First Stage PCEQ_STKPRC	(3) Second Stage Raw CSR	(4) First Stage PROPPCEQ_ACCT	(5) First Stage PROPPCEQ_STKPRC	(6) Second Stage Raw CSR	(7) First Stage PCEQ_ACCT	(8) First Stage PCEQ_STKPRC	(9) Second Stage Scaled CSR	(10) First Stage PROPPCEQ_ACCT	(11) First Stage PROPPCEQ_STKPRC	(12) Second Stage Scaled CSR
Industry PCEQ_ACCT	0.845***	-0.141***					0.845***	-0.141***				
	(0.021)	(0.020)					(0.021)	(0.020)				
Industry PCEQ_STKPRC	-0.143***	0.952***					-0.142***	0.954***				
	(0.027)	(0.022)					(0.027)	(0.022)				
PCEQ_ACCT		0.111***	0.897***					0.111***	0.191***			
		(0.009)	(0.058)					(0.009)	(0.014)			
PCEQ_STKPRC	0.145***		1.070***				0.144***		0.282***			
	(0.011)		(0.066)				(0.011)		(0.016)			
Industry PROPPCEQ_ACCT				0.830***	-0.238***					0.830***	-0.238***	
				(0.022)	(0.019)					(0.022)	(0.019)	
Industry PROPPCEQ_STKPRC				-0.369***	0.949***					-0.369***	0.950***	
				(0.030)	(0.023)					(0.030)	(0.023)	
PROPPCEQ_ACCT					0.228***	1.500***					0.228***	0.307***
					(0.008)	(0.135)					(0.008)	(0.033)
PROPPCEQ_STKPRC				0.326***		2.363***				0.325***		0.582***
				(0.012)		(0.160)				(0.012)		(0.039)
CEO Delta	0.024***	0.013***	0.028***	0.008***	0.003***	0.048***	0.024***	0.013***	0.003	0.008***	0.003***	0.008***
	(0.001)	(0.001)	(0.009)	(0.001)	(0.001)	(0.009)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.002)
CEO Vega	-0.011***	-0.006***	-0.055***	-0.005***	-0.003***	-0.063***	-0.011***	-0.006***	-0.010***	-0.005***	-0.003***	-0.012***
	(0.001)	(0.001)	(0.005)	(0.000)	(0.000)	(0.005)	(0.001)	(0.001)	(0.001)	(0.000)	(0.000)	(0.001)
Total CEO Pay	0.023***	0.010*	-0.057	0.031***	0.004	-0.090**	0.023***	0.010*	-0.005	0.031***	0.003	-0.012
	(0.006)	(0.005)	(0.037)	(0.003)	(0.002)	(0.038)	(0.006)	(0.005)	(0.009)	(0.003)	(0.002)	(0.009)
Size	-0.015*	-0.028***	0.516***	-0.013***	-0.015***	0.615***	-0.015*	-0.028***	0.116***	-0.013***	-0.015***	0.140***
	(0.008)	(0.007)	(0.050)	(0.004)	(0.003)	(0.050)	(0.008)	(0.007)	(0.012)	(0.004)	(0.003)	(0.012)

Q	-0.010***	-0.011***	0.053**	-0.005***	-0.003***	0.056***	-0.010***	-0.012***	0.019***	-0.005***	-0.003***	0.020***
	(0.003)	(0.003)	(0.021)	(0.001)	(0.001)	(0.021)	(0.003)	(0.003)	(0.005)	(0.001)	(0.001)	(0.005)
Profitability	0.037	-0.062*	0.169	0.010	-0.004	0.141	0.037	-0.062*	-0.027	0.010	-0.004	-0.036
	(0.041)	(0.036)	(0.267)	(0.018)	(0.015)	(0.268)	(0.041)	(0.036)	(0.066)	(0.018)	(0.015)	(0.066)
Cash Holding	0.127***	-0.080**	-0.185	0.059***	-0.025	-0.159	0.127***	-0.080**	-0.061	0.059***	-0.025	-0.056
	(0.042)	(0.037)	(0.274)	(0.019)	(0.016)	(0.275)	(0.042)	(0.037)	(0.067)	(0.019)	(0.016)	(0.067)
Free Cash Flow	-0.008	-0.004	1.260***	0.012	-0.003	1.317***	-0.008	-0.004	0.054	0.012	-0.003	0.068
	(0.060)	(0.053)	(0.390)	(0.027)	(0.022)	(0.391)	(0.060)	(0.053)	(0.095)	(0.027)	(0.022)	(0.096)
Leverage	-0.028	0.038	0.567***	0.023*	0.010	0.608***	-0.028	0.038	0.167***	0.023*	0.010	0.182***
	(0.029)	(0.025)	(0.184)	(0.013)	(0.011)	(0.185)	(0.029)	(0.025)	(0.045)	(0.013)	(0.011)	(0.045)
Capital Expenditures	0.037	0.070	0.021	0.007	0.011	0.105	0.037	0.070	-0.427**	0.007	0.011	-0.405**
	(0.125)	(0.109)	(0.803)	(0.055)	(0.046)	(0.806)	(0.125)	(0.109)	(0.197)	(0.055)	(0.046)	(0.198)
Product Concentration	0.023	0.051***	-0.255*	-0.007	0.017**	-0.181	0.023	0.051***	-0.053*	-0.006	0.017**	-0.035
	(0.020)	(0.018)	(0.131)	(0.009)	(0.008)	(0.131)	(0.020)	(0.018)	(0.032)	(0.009)	(0.008)	(0.032)
Independent Directors	0.021	0.068**	0.739***	-0.042***	0.019*	1.005***	0.021	0.068**	0.099**	-0.042***	0.019*	0.162***
	(0.031)	(0.027)	(0.197)	(0.014)	(0.011)	(0.197)	(0.031)	(0.027)	(0.048)	(0.014)	(0.011)	(0.048)
State-Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,274	10,274	10,274	10,274	10,274	10,274	10,274	10,274	10,274	10,274	10,274	10,274
Chi-squared	18536	19383		17141	16313		18534	19390		17142	16318	
Adj. R-squared	0.640	0.649	0.611	0.610	0.596	0.609	0.640	0.649	0.494	0.610	0.596	0.490

Table 6. Stakeholder Support

In this table, we report results pertaining to whether the demand for stakeholder support affects the association between CEO p-c equity awards and CSR by reporting estimations of the joint effects of factors related to stakeholder importance and CEO p-c equity awards. Specifically, we use unemployment insurance (UI) in Panel A, product market fluidity (PMF) in Panel B, and product concentration (Prod. Con) in Panel C as factors that proxy for the importance of stakeholder welfare for firms. We use OLS estimation methods to control for firm and state×year fixed effects in all models. Standard errors are clustered at both firm and year levels and reported in parentheses. ***, **, * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively. See the Appendix for detailed variable explanations.

Panel A. Unemployment Insurance (UI)

	(1) Raw CSR	(2) Raw CSR	(3) Raw CSR	(4) Raw CSR	(5) Scaled CSR	(6) Scaled CSR	(7) Scaled CSR	(8) Scaled CSR
Unemployment Insurance (UI)	1.093**	1.162**	1.312**	1.418***	0.241**	0.255**	0.286**	0.294**
	(0.447)	(0.419)	(0.469)	(0.449)	(0.115)	(0.111)	(0.114)	(0.114)
PCEQ	-1.832				-0.470			
	(2.209)				(0.490)			
PCEQ * UI	0.413***				0.093**			
	(0.160)				(0.037)			
PCEQ_ACCT		0.323				0.008		
		(2.434)				(0.554)		
PCEQ_ACCT * UI		0.074				0.017		
		(0.164)				(0.038)		
PCEQ_STKPRC		-2.718				-0.654		
		(2.622)				(0.600)		
PCEQ_STKPRC * UI		0.479***				0.112***		
		(0.174)				(0.040)		
PROPPCEQ			-2.136				-0.778	
			(5.175)				(1.224)	
PROPPCEQ * UI			0.313				0.088	
			(0.330)				(0.076)	
PROPPCEQ_ACCT				3.423				0.379
				(5.166)				(1.368)
PROPPCEQ_ACCT * UI				-0.374				-0.028

				(0.363)				(0.083)
PROPPCEQ_STKPRC				-6.500				-2.153
				(6.145)				(1.391)
PROPPCEQ_STKPRC * UI				1.292***				0.312***
				(0.445)				(0.102)
CEO Delta	0.054***	0.048***	0.059***	0.059***	0.009*	0.008*	0.011**	0.011**
	(0.017)	(0.016)	(0.017)	(0.016)	(0.004)	(0.004)	(0.004)	(0.004)
CEO Vega	-0.070***	-0.064**	-0.069***	-0.067***	-0.014**	-0.012**	-0.014**	-0.014**
	(0.023)	(0.023)	(0.023)	(0.023)	(0.006)	(0.006)	(0.006)	(0.006)
Total CEO Pay	-0.030	-0.039	-0.068	-0.071	0.002	-0.001	-0.006	-0.006
	(0.062)	(0.062)	(0.062)	(0.062)	(0.015)	(0.015)	(0.015)	(0.015)
Size	0.538***	0.520***	0.578***	0.577***	0.122***	0.117***	0.131***	0.132***
	(0.132)	(0.129)	(0.135)	(0.133)	(0.034)	(0.032)	(0.035)	(0.034)
Q	0.060	0.055	0.062	0.060	0.021	0.020	0.021	0.021
	(0.047)	(0.046)	(0.047)	(0.047)	(0.014)	(0.014)	(0.014)	(0.014)
Profitability	0.141	0.178	0.160	0.168	-0.036	-0.023	-0.032	-0.028
	(0.310)	(0.297)	(0.325)	(0.322)	(0.128)	(0.125)	(0.133)	(0.131)
Cash Holding	-0.220	-0.204	-0.194	-0.205	-0.071	-0.065	-0.065	-0.066
	(0.421)	(0.417)	(0.420)	(0.420)	(0.097)	(0.096)	(0.097)	(0.098)
Free Cash Flow	1.181**	1.177**	1.162**	1.179**	0.039	0.040	0.036	0.042
	(0.484)	(0.476)	(0.477)	(0.468)	(0.144)	(0.140)	(0.144)	(0.141)
Leverage	0.739**	0.663*	0.705*	0.658*	0.215**	0.195**	0.209**	0.200**
	(0.337)	(0.324)	(0.340)	(0.332)	(0.091)	(0.084)	(0.090)	(0.086)
Capital Expenditures	0.317	0.196	0.283	0.253	-0.338	-0.365	-0.345	-0.347
	(1.927)	(1.892)	(1.919)	(1.898)	(0.565)	(0.555)	(0.565)	(0.562)
Product Concentration	-0.178	-0.195	-0.159	-0.148	-0.037	-0.041	-0.032	-0.029
	(0.206)	(0.209)	(0.208)	(0.213)	(0.047)	(0.048)	(0.048)	(0.049)
Independent Directors	0.848**	0.839**	1.015**	0.989**	0.129	0.126	0.169*	0.164*
	(0.375)	(0.380)	(0.389)	(0.388)	(0.079)	(0.079)	(0.083)	(0.081)
Year-State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,133	10,133	10,133	10,133	10,133	10,133	10,133	10,133
Adj. R-squared	0.565	0.569	0.564	0.566	0.431	0.436	0.430	0.431

Panel B. Product Market Fluidity (PMF)

	(1) Raw CSR	(2) Raw CSR	(3) Raw CSR	(4) Raw CSR	(5) Scaled CSR	(6) Scaled CSR	(7) Scaled CSR	(8) Scaled CSR
Product Market Fluidity (PMF)	-0.150	-0.192	-0.208	-0.203	-0.012	-0.015	-0.022	-0.012
	(0.189)	(0.200)	(0.197)	(0.204)	(0.044)	(0.045)	(0.046)	(0.049)
PCEQ	0.547***				0.117***			
	(0.121)				(0.030)			
PCEQ * PMF	0.196**				0.051**			
	(0.089)				(0.022)			
PCEQ_ACCT		0.273**				0.065**		
		(0.129)				(0.032)		
PCEQ_ACCT * PMF		0.347***				0.064***		
		(0.099)				(0.024)		
PCEQ_STKPRC		0.582***				0.156***		
		(0.148)				(0.036)		
PCEQ_STKPRC * PMF		0.027				0.009		
		(0.110)				(0.027)		
PROPPCEQ			0.826***				0.175***	
			(0.260)				(0.064)	
PROPPCEQ * PMF			0.577***				0.134***	
			(0.187)				(0.046)	
PROPPCEQ_ACCT				0.143				0.057
				(0.305)				(0.075)
PROPPCEQ_ACCT * PMF				0.930***				0.154***
				(0.240)				(0.059)
PROPPCEQ_STKPRC				1.233***				0.317***
				(0.366)				(0.090)
PROPPCEQ_STKPRC * PMF				0.039				-0.003
				(0.263)				(0.065)
CEO Delta	0.053***	0.050***	0.062***	0.063***	0.010**	0.009**	0.012**	0.012***
	(0.017)	(0.016)	(0.017)	(0.016)	(0.004)	(0.004)	(0.004)	(0.004)
CEO Vega	-0.075***	-0.070***	-0.075***	-0.076***	-0.015**	-0.014**	-0.015**	-0.015**
	(0.024)	(0.024)	(0.025)	(0.025)	(0.006)	(0.006)	(0.006)	(0.006)

Total CEO Pay	-0.023	-0.030	-0.055	-0.050	0.003	0.002	-0.003	-0.002
	(0.063)	(0.063)	(0.064)	(0.065)	(0.016)	(0.015)	(0.016)	(0.016)
Size	0.574***	0.556***	0.624***	0.622***	0.129***	0.126***	0.142***	0.143***
	(0.126)	(0.123)	(0.127)	(0.125)	(0.032)	(0.031)	(0.033)	(0.032)
Q	0.060	0.055	0.061	0.057	0.020	0.019	0.021	0.020
	(0.048)	(0.046)	(0.048)	(0.048)	(0.014)	(0.014)	(0.014)	(0.014)
Profitability	0.100	0.126	0.107	0.107	-0.043	-0.034	-0.041	-0.041
	(0.320)	(0.306)	(0.337)	(0.335)	(0.132)	(0.128)	(0.136)	(0.136)
Cash Holding	-0.160	-0.135	-0.133	-0.145	-0.059	-0.053	-0.054	-0.056
	(0.416)	(0.409)	(0.414)	(0.412)	(0.097)	(0.096)	(0.097)	(0.097)
Free Cash Flow	1.258**	1.219**	1.258**	1.257**	0.055	0.051	0.057	0.062
	(0.494)	(0.482)	(0.487)	(0.478)	(0.147)	(0.143)	(0.147)	(0.145)
Leverage	0.745**	0.674*	0.727**	0.700*	0.216**	0.197**	0.214**	0.208**
	(0.340)	(0.326)	(0.345)	(0.337)	(0.089)	(0.083)	(0.090)	(0.085)
Capital Expenditures	0.260	0.130	0.212	0.135	-0.379	-0.408	-0.390	-0.402
	(1.985)	(1.956)	(1.975)	(1.955)	(0.579)	(0.572)	(0.579)	(0.578)
Product Concentration	-0.212	-0.227	-0.200	-0.185	-0.031	-0.036	-0.028	-0.025
	(0.207)	(0.210)	(0.206)	(0.210)	(0.046)	(0.047)	(0.046)	(0.047)
Independent Directors	0.893**	0.912**	1.098***	1.087***	0.139*	0.141*	0.187**	0.183**
	(0.361)	(0.368)	(0.376)	(0.376)	(0.076)	(0.076)	(0.079)	(0.078)
Year-State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,274	10,274	10,274	10,274	10,274	10,274	10,274	10,274
Adj. R-squared	0.566	0.570	0.565	0.567	0.434	0.438	0.432	0.433

Panel C. Product Market Concentration (Prod. Con)

	(1) Raw CSR	(2) Raw CSR	(3) Raw CSR	(4) Raw CSR	(5) Scaled CSR	(6) Scaled CSR	(7) Scaled CSR	(8) Scaled CSR
Product Concentration (Prod. Con.)	0.038	0.143	0.000	0.133	0.003	0.010	0.019	0.024
	(0.230)	(0.225)	(0.000)	(0.000)	(0.049)	(0.049)	(0.000)	(0.049)
PCEQ	0.907***				0.201***			
	(0.080)				(0.020)			
PCEQ * Prod. Con.	-0.485**				-0.087*			
	(0.190)				(0.047)			
PCEQ_ACCT		0.827***				0.167***		
		(0.083)				(0.020)		
PCEQ_ACCT * Prod. Con.		-0.547***				-0.103**		
		(0.200)				(0.049)		
PCEQ_STKPRC		0.777***				0.182***		
		(0.095)				(0.023)		
PCEQ_STKPRC * Prod. Con.		-0.597**				-0.052		
		(0.246)				(0.060)		
PROPPCEQ			1.864***				0.413***	
			(0.174)				(0.043)	
PROPPCEQ * Prod. Con.			-1.259***				-0.283***	
			(0.396)				(0.097)	
PROPPCEQ_ACCT				1.462***				0.307***
				(0.194)				(0.048)
PROPPCEQ_ACCT * Prod. Con.				-0.898**				-0.257**
				(0.456)				(0.112)
PROPPCEQ_STKPRC				1.880***				0.382***
				(0.230)				(0.057)
PROPPCEQ_STKPRC * Prod. Con.				-2.088***				-0.230
				(0.581)				(0.143)
CEO Delta	0.053***	0.048***	0.061***	0.061***	0.009**	0.008*	0.011**	0.012**
	(0.017)	(0.016)	(0.017)	(0.016)	(0.004)	(0.004)	(0.004)	(0.004)
CEO Vega	-0.075***	-0.070***	-0.075***	-0.075***	-0.015**	-0.014**	-0.015**	-0.015**
	(0.024)	(0.024)	(0.025)	(0.025)	(0.006)	(0.006)	(0.006)	(0.006)

Total CEO Pay	-0.021	-0.026	-0.053	-0.049	0.003	0.002	-0.003	-0.002
	(0.063)	(0.063)	(0.064)	(0.064)	(0.016)	(0.015)	(0.016)	(0.016)
Size	0.574***	0.554***	0.626***	0.623***	0.131***	0.127***	0.143***	0.143***
	(0.123)	(0.120)	(0.125)	(0.123)	(0.031)	(0.030)	(0.032)	(0.032)
Q	0.059	0.055	0.059	0.057	0.020	0.019	0.021	0.020
	(0.048)	(0.047)	(0.048)	(0.048)	(0.014)	(0.014)	(0.014)	(0.014)
Profitability	0.112	0.135	0.125	0.130	-0.045	-0.036	-0.042	-0.041
	(0.312)	(0.295)	(0.328)	(0.323)	(0.131)	(0.126)	(0.135)	(0.133)
Cash Holding	-0.184	-0.180	-0.152	-0.170	-0.064	-0.059	-0.056	-0.058
	(0.418)	(0.413)	(0.414)	(0.413)	(0.097)	(0.096)	(0.097)	(0.097)
Free Cash Flow	1.282**	1.267**	1.280**	1.302**	0.059	0.058	0.059	0.065
	(0.496)	(0.485)	(0.487)	(0.478)	(0.148)	(0.144)	(0.147)	(0.145)
Leverage	0.767**	0.711**	0.751**	0.728**	0.217**	0.199**	0.215**	0.210**
	(0.346)	(0.334)	(0.352)	(0.344)	(0.092)	(0.086)	(0.092)	(0.088)
Capital Expenditures	0.241	0.089	0.174	0.105	-0.375	-0.408	-0.390	-0.401
	(1.977)	(1.935)	(1.969)	(1.942)	(0.583)	(0.575)	(0.584)	(0.582)
Independent Directors	0.894**	0.899**	1.104***	1.087***	0.138*	0.138*	0.187**	0.183**
	(0.363)	(0.370)	(0.379)	(0.379)	(0.076)	(0.076)	(0.080)	(0.079)
Year-State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,274	10,274	10,274	10,274	10,274	10,274	10,274	10,274
Adj. R-squared	0.566	0.570	0.565	0.567	0.433	0.438	0.432	0.433

Table 7. Corporate Governance

In this table, we present estimations of the joint effects of corporate governance and CEO p-c equity awards. We use the ratio of independent directors as the measure of corporate governance. OLS estimation methods are employed to control for firm and state-year fixed effects. Standard errors are clustered at both firm and year levels and reported in parentheses. ***, **, * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively. See the Appendix for detailed variable explanations.

	(1) Raw CSR	(2) Raw CSR	(3) Raw CSR	(4) Raw CSR	(5) Scaled CSR	(6) Scaled CSR	(7) Scaled CSR	(8) Scaled CSR
Independent Directors (I.D.)	0.422	0.488	0.600	0.652	0.019	0.046	0.063	0.082
	(0.365)	(0.383)	(0.391)	(0.395)	(0.073)	(0.078)	(0.078)	(0.080)
PCEQ	-0.627				-0.177			
	(0.457)				(0.102)			
PCEQ * I.D.	1.760***				0.444***			
	(0.556)				(0.131)			
PCEQ_ACCT		0.410				0.052		
		(0.508)				(0.112)		
PCEQ_ACCT * I.D.		0.351				0.111		
		(0.633)				(0.144)		
PCEQ_STKPRC		-1.980**				-0.363**		
		(0.737)				(0.171)		
PCEQ_STKPRC * I.D.		3.158***				0.645***		
		(0.847)				(0.199)		
PROPPCEQ			-2.272**				-0.595**	
			(1.060)				(0.234)	
PROPPCEQ * I.D.			4.760***				1.169***	
			(1.295)				(0.302)	
PROPPCEQ_ACCT				-0.254				-0.201
				(1.193)				(0.286)
PROPPCEQ_ACCT * I.D.				1.872				0.554
				(1.495)				(0.364)
PROPPCEQ_STKPRC				-4.467**				-0.777*
				(2.053)				(0.445)
PROPPCEQ_STKPRC * I.D.				7.017***				1.330**

				(2.416)				(0.536)
CEO Delta	0.051***	0.046***	0.059***	0.059***	0.009*	0.008*	0.011**	0.011**
	(0.016)	(0.015)	(0.016)	(0.016)	(0.004)	(0.004)	(0.004)	(0.004)
CEO Vega	-0.073***	-0.068***	-0.074***	-0.074***	-0.014**	-0.013**	-0.015**	-0.015**
	(0.024)	(0.024)	(0.024)	(0.024)	(0.006)	(0.006)	(0.006)	(0.006)
Total CEO Pay	-0.021	-0.030	-0.051	-0.050	0.003	0.001	-0.003	-0.002
	(0.062)	(0.063)	(0.063)	(0.064)	(0.015)	(0.015)	(0.016)	(0.016)
Size	0.577***	0.570***	0.623***	0.634***	0.131***	0.129***	0.142***	0.144***
	(0.124)	(0.122)	(0.128)	(0.126)	(0.032)	(0.030)	(0.032)	(0.032)
Q	0.055	0.051	0.055	0.053	0.020	0.019	0.019	0.019
	(0.048)	(0.047)	(0.049)	(0.049)	(0.014)	(0.014)	(0.014)	(0.014)
Profitability	0.122	0.154	0.130	0.128	-0.042	-0.032	-0.041	-0.040
	(0.308)	(0.294)	(0.327)	(0.325)	(0.129)	(0.126)	(0.134)	(0.133)
Cash Holding	-0.209	-0.185	-0.191	-0.177	-0.069	-0.061	-0.065	-0.061
	(0.418)	(0.412)	(0.418)	(0.415)	(0.097)	(0.095)	(0.098)	(0.097)
Free Cash Flow	1.256**	1.233**	1.265**	1.282**	0.051	0.050	0.054	0.061
	(0.501)	(0.488)	(0.488)	(0.477)	(0.149)	(0.143)	(0.147)	(0.144)
Leverage	0.742**	0.679*	0.710*	0.686*	0.212**	0.195**	0.205**	0.201**
	(0.343)	(0.329)	(0.348)	(0.338)	(0.091)	(0.085)	(0.090)	(0.087)
Capital Expenditures	0.057	-0.073	0.005	-0.011	-0.422	-0.446	-0.433	-0.432
	(1.979)	(1.934)	(1.973)	(1.950)	(0.585)	(0.575)	(0.586)	(0.583)
Product Concentration	-0.197	-0.209	-0.168	-0.148	-0.039	-0.042	-0.032	-0.028
	(0.203)	(0.203)	(0.206)	(0.208)	(0.047)	(0.047)	(0.047)	(0.048)
Year-State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,274	10,274	10,274	10,274	10,274	10,274	10,274	10,274
Adj. R-squared	0.567	0.571	0.566	0.568	0.435	0.439	0.434	0.435

Table 8. Information Asymmetry

In this table, we present estimations of the joint effects of information asymmetry and CEO p-c equity awards. Specifically, we utilize the number of financial analysts in Panel A, stock volatility in Panel B, and bid-ask spread in Panel C as measures of information asymmetry. OLS estimation methods are employed to control for firm and state-year fixed effects. Standard errors are clustered at both the firm and year levels and reported in parentheses. ***, **, * correspond to statistical significances at the 1%, 5%, and 10% levels, respectively. See the Appendix for detailed variable explanations.

Panel A. Number of Financial Analysts (Analysts)

	(1) Raw CSR	(2) Raw CSR	(3) Raw CSR	(4) Raw CSR	(5) Scaled CSR	(6) Scaled CSR	(7) Scaled CSR	(8) Scaled CSR
Number of Financial Analysts (Analysts)	-0.300***	-0.275**	-0.216*	-0.207*	-0.110***	-0.105***	-0.086*	-0.087**
	(0.104)	(0.110)	(0.118)	(0.118)	(0.036)	(0.000)	(0.044)	(0.041)
PCEQ	0.401***				0.081**			
	(0.134)				(0.033)			
PCEQ * Analysts	0.137***				0.031**			
	(0.051)				(0.012)			
PCEQ_ACCT		0.127				-0.013		
		(0.119)				(0.029)		
PCEQ_ACCT * Analysts		0.232***				0.061***		
		(0.046)				(0.011)		
PCEQ_STKPRC		0.743***				0.200***		
		(0.118)				(0.029)		
PCEQ_STKPRC * Analysts		-0.089				-0.030		
		(0.099)				(0.031)		
PROPPCEQ			1.239***				0.280***	
			(0.254)				(0.062)	
PROPPCEQ * Analysts			0.061				-0.003	
			(0.097)				(0.024)	
PROPPCEQ_ACCT				0.613**				0.051
				(0.258)				(0.063)
PROPPCEQ_ACCT * Analysts				0.232**				0.066***
				(0.101)				(0.025)
PROPPCEQ_STKPRC				1.620***				0.432***

				(0.284)				(0.069)
PROPPCEQ_STKPRC * Analysts				-0.213				-0.087
				(0.209)				(0.064)
CEO Delta	0.052***	0.048***	0.059***	0.060***	0.009**	0.008*	0.011**	0.011**
	(0.016)	(0.016)	(0.016)	(0.016)	(0.004)	(0.004)	(0.004)	(0.004)
CEO Vega	-0.071***	-0.067**	-0.072**	-0.072**	-0.013**	-0.013*	-0.014**	-0.014**
	(0.024)	(0.024)	(0.025)	(0.025)	(0.006)	(0.006)	(0.006)	(0.006)
Total CEO Pay	-0.031	-0.036	-0.063	-0.062	-0.001	-0.002	-0.007	-0.006
	(0.063)	(0.064)	(0.064)	(0.065)	(0.014)	(0.015)	(0.015)	(0.015)
Size	0.572***	0.566***	0.618***	0.624***	0.126***	0.126***	0.136***	0.138***
	(0.127)	(0.124)	(0.132)	(0.130)	(0.028)	(0.027)	(0.029)	(0.029)
Q	0.052	0.048	0.049	0.047	0.017	0.016	0.016	0.015
	(0.045)	(0.044)	(0.046)	(0.045)	(0.010)	(0.010)	(0.011)	(0.011)
Profitability	0.174	0.209	0.179	0.181	-0.017	-0.005	-0.016	-0.014
	(0.342)	(0.327)	(0.361)	(0.358)	(0.142)	(0.139)	(0.147)	(0.146)
Cash Holding	-0.150	-0.166	-0.114	-0.138	-0.047	-0.049	-0.038	-0.045
	(0.414)	(0.412)	(0.412)	(0.413)	(0.093)	(0.093)	(0.094)	(0.094)
Free Cash Flow	1.319**	1.318**	1.328**	1.352***	0.072	0.074	0.075	0.082
	(0.479)	(0.467)	(0.472)	(0.461)	(0.133)	(0.127)	(0.133)	(0.129)
Leverage	0.520	0.492	0.505	0.498	0.113	0.107	0.111	0.112
	(0.373)	(0.358)	(0.383)	(0.376)	(0.073)	(0.070)	(0.076)	(0.074)
Capital Expenditures	0.926	0.934	0.804	0.837	-0.100	-0.083	-0.130	-0.104
	(1.727)	(1.698)	(1.726)	(1.704)	(0.463)	(0.451)	(0.466)	(0.459)
Product Concentration	-0.207	-0.229	-0.189	-0.182	-0.045	-0.050	-0.041	-0.040
	(0.205)	(0.206)	(0.206)	(0.209)	(0.049)	(0.050)	(0.049)	(0.050)
Independent Directors	0.816**	0.830**	1.025**	1.017**	0.110	0.113	0.156*	0.154*
	(0.361)	(0.368)	(0.384)	(0.386)	(0.074)	(0.075)	(0.078)	(0.079)
Year-State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,274	10,274	10,274	10,274	10,274	10,274	10,274	10,274
Adj. R-squared	0.569	0.572	0.567	0.569	0.446	0.450	0.444	0.445

Panel B. Stock Volatility

	(1) Raw CSR	(2) Raw CSR	(3) Raw CSR	(4) Raw CSR	(5) Scaled CSR	(6) Scaled CSR	(7) Scaled CSR	(8) Scaled CSR
Volatility	-18.091**	-17.400**	-21.824**	-22.172***	-4.416**	-4.210**	-5.443**	-5.548***
	(7.864)	(8.001)	(8.566)	(3.228)	(1.687)	(1.715)	(1.908)	(1.929)
PCEQ	1.434***				0.299***			
	(0.113)				(0.028)			
PCEQ * Volatility	-41.035***				-7.774***			
	(5.342)				(1.312)			
PCEQ_ACCT		1.399***				0.310***		
		(0.118)				(0.029)		
PCEQ_ACCT * Volatility		-46.652***				-11.097***		
		(6.094)				(1.496)		
PCEQ_STKPRC		0.757***				0.143***		
		(0.134)				(0.033)		
PCEQ_STKPRC * Volatility		-11.846*				0.825		
		(7.094)				(1.742)		
PROPPCEQ			2.889***				0.544***	
			(0.247)				(0.061)	
PROPPCEQ * Volatility			-90.378***				-14.356***	
			(12.530)				(3.079)	
PROPPCEQ_ACCT				2.591***				0.565***
				(0.282)				(0.069)
PROPPCEQ_ACCT * Volatility				-92.557***				-21.972***
				(14.987)				(3.683)
PROPPCEQ_STKPRC				1.907***				0.232***
				(0.335)				(0.082)
PROPPCEQ_STKPRC * Volatility				-46.218**				3.998
				(18.783)				(4.616)
CEO Delta	0.043**	0.041**	0.053***	0.055***	0.007*	0.007*	0.010**	0.010**
	(0.016)	(0.015)	(0.015)	(0.015)	(0.004)	(0.004)	(0.004)	(0.004)
CEO Vega	-0.069***	-0.066***	-0.071***	-0.072***	-0.014**	-0.013**	-0.014**	-0.015**
	(0.023)	(0.022)	(0.024)	(0.024)	(0.006)	(0.006)	(0.006)	(0.006)

Total CEO Pay	-0.010	-0.012	-0.044	-0.040	0.006	0.005	-0.002	0.001
	(0.055)	(0.056)	(0.056)	(0.058)	(0.014)	(0.014)	(0.014)	(0.014)
Size	0.472***	0.465***	0.521***	0.523***	0.108***	0.105***	0.119***	0.118***
	(0.115)	(0.113)	(0.118)	(0.117)	(0.030)	(0.029)	(0.030)	(0.030)
Q	0.037	0.031	0.040	0.036	0.016	0.014	0.016	0.015
	(0.045)	(0.045)	(0.046)	(0.045)	(0.014)	(0.013)	(0.014)	(0.014)
Profitability	-0.464	-0.427	-0.482	-0.498	-0.170	-0.154	-0.174	-0.170
	(0.328)	(0.314)	(0.339)	(0.333)	(0.120)	(0.112)	(0.122)	(0.118)
Cash Holding	-0.325	-0.310	-0.278	-0.295	-0.095	-0.089	-0.084	-0.088
	(0.406)	(0.403)	(0.403)	(0.401)	(0.096)	(0.095)	(0.096)	(0.096)
Free Cash Flow	1.373***	1.355***	1.336***	1.356***	0.076	0.071	0.066	0.069
	(0.476)	(0.467)	(0.466)	(0.457)	(0.133)	(0.130)	(0.133)	(0.131)
Leverage	0.837**	0.745**	0.814**	0.770**	0.235**	0.209**	0.231**	0.222**
	(0.338)	(0.324)	(0.342)	(0.332)	(0.090)	(0.083)	(0.090)	(0.085)
Capital Expenditures	0.162	0.074	0.149	0.113	-0.384	-0.396	-0.382	-0.375
	(1.872)	(1.853)	(1.872)	(1.865)	(0.563)	(0.558)	(0.567)	(0.566)
Product Concentration	-0.199	-0.207	-0.179	-0.166	-0.040	-0.043	-0.035	-0.033
	(0.206)	(0.207)	(0.207)	(0.211)	(0.047)	(0.048)	(0.047)	(0.048)
Independent Directors	0.781**	0.798**	0.989**	0.983**	0.116	0.117	0.165*	0.158*
	(0.365)	(0.370)	(0.378)	(0.379)	(0.078)	(0.078)	(0.081)	(0.080)
Year-State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,224	10,224	10,224	10,224	10,224	10,224	10,224	10,224
Adj. R-squared	0.573	0.576	0.571	0.573	0.439	0.444	0.437	0.439

Panel C. Bid-Ask Spread

	(1) Raw CSR	(2) Raw CSR	(3) Raw CSR	(4) Raw CSR	(5) Scaled CSR	(6) Scaled CSR	(7) Scaled CSR	(8) Scaled CSR
Spread	-9.397	-9.744	-19.120	-20.250	-0.138	-0.194	-2.366	-2.606
	(11.364)	(11.567)	(12.970)	(13.145)	(2.614)	(2.728)	(2.860)	(2.970)
PCEQ	1.019***				0.228***			
	(0.163)				(0.042)			
PCEQ * Spread	-155.412***				-32.418***			
	(40.756)				(9.269)			
PCEQ_ACCT		0.807***				0.164***		
		(0.133)				(0.035)		
PCEQ_ACCT *Spread		-97.998**				-19.334**		
		(37.551)				(8.235)		
PCEQ_STKPRC		0.818***				0.211***		
		(0.210)				(0.059)		
PCEQ_STKPRC * Spread		-165.111***				-35.096***		
		(39.152)				(8.977)		
PROPPCEQ			2.065***				0.445***	
			(0.359)				(0.101)	
PROPPCEQ * Spread			-437.734***				-87.688***	
			(104.285)				(23.408)	
PROPPCEQ_ACCT				1.460***				0.284***
				(0.281)				(0.076)
PROPPCEQ_ACCT * Spread				-178.181**				-35.719**
				(71.381)				(15.604)
PROPPCEQ_STKPRC				2.004***				0.455***
				(0.486)				(0.135)
PROPPCEQ_STKPRC * Spread				-579.661***				-113.015***
				(127.870)				(28.597)
CEO Delta	0.044**	0.041**	0.053***	0.054***	0.007*	0.007*	0.010**	0.010**
	(0.016)	(0.015)	(0.016)	(0.015)	(0.004)	(0.004)	(0.004)	(0.004)
CEO Vega	-0.064**	-0.060**	-0.066**	-0.065**	-0.013**	-0.012*	-0.013**	-0.013**
	(0.023)	(0.023)	(0.024)	(0.024)	(0.006)	(0.006)	(0.006)	(0.006)

Total CEO Pay	-0.037	-0.042	-0.067	-0.070	0.001	-0.001	-0.006	-0.005
	(0.063)	(0.063)	(0.063)	(0.063)	(0.016)	(0.015)	(0.016)	(0.016)
Size	0.527***	0.526***	0.557***	0.582***	0.123***	0.123***	0.131***	0.136***
	(0.122)	(0.120)	(0.123)	(0.124)	(0.031)	(0.030)	(0.031)	(0.032)
Q	0.039	0.035	0.036	0.036	0.017	0.016	0.016	0.016
	(0.047)	(0.046)	(0.047)	(0.047)	(0.014)	(0.014)	(0.014)	(0.014)
Profitability	0.067	0.089	0.076	0.056	-0.049	-0.039	-0.047	-0.049
	(0.311)	(0.296)	(0.327)	(0.320)	(0.130)	(0.126)	(0.134)	(0.132)
Cash Holding	-0.293	-0.244	-0.309	-0.256	-0.082	-0.069	-0.084	-0.073
	(0.428)	(0.421)	(0.428)	(0.427)	(0.097)	(0.095)	(0.097)	(0.097)
Free Cash Flow	1.290**	1.317**	1.288**	1.364**	0.061	0.068	0.061	0.079
	(0.500)	(0.489)	(0.488)	(0.478)	(0.146)	(0.142)	(0.145)	(0.142)
Leverage	0.814**	0.738**	0.790**	0.740**	0.224**	0.204**	0.220**	0.211**
	(0.343)	(0.330)	(0.347)	(0.338)	(0.092)	(0.085)	(0.091)	(0.087)
Capital Expenditures	-0.184	-0.340	-0.238	-0.270	-0.455	-0.489	-0.464	-0.468
	(1.938)	(1.898)	(1.929)	(1.901)	(0.570)	(0.561)	(0.573)	(0.569)
Product Concentration	-0.219	-0.233	-0.205	-0.200	-0.044	-0.048	-0.040	-0.039
	(0.200)	(0.201)	(0.203)	(0.208)	(0.046)	(0.047)	(0.046)	(0.047)
Independent Directors	0.736**	0.753**	0.937**	0.946**	0.112	0.115	0.159*	0.160**
	(0.349)	(0.353)	(0.356)	(0.355)	(0.074)	(0.074)	(0.077)	(0.076)
Year-State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,225	10,225	10,225	10,225	10,225	10,225	10,225	10,225
Adj. R-squared	0.571	0.575	0.571	0.574	0.438	0.443	0.436	0.438

Online Appendix: Supplementary Materials for "Aligning Incentives for Social Responsibility: The Impact of Performance-Contingent Equity Awards on Corporate Social Performance"

In this appendix, we present supplementary materials that augment the findings of our study. The appendix is divided into three parts:

Part One: Impact of CEO p-c Awards on CSR with Executive-Level Fixed Effects

We address concerns regarding endogeneity by incorporating executive-level fixed effects, which account for time-invariant heterogeneity among executives. Prior literature suggests that CEO personal characteristics and experiences significantly influence CSR scores. For example, Davidson, Dey, and Smith (2019) find that CEO-level fixed effects explain a substantial portion (63%) of CSR score variation. To demonstrate the robustness of our findings, we rerun our baseline analyses with executive-level fixed effects (see Table OA.1). Despite controlling for these effects, we observe a consistent positive and significant relationship between CEO p-c compensation and CSR engagement. Our results remain robust to both firm-level and executive-level fixed effects.

Part Two: Categorical Analysis of CSR

We examine the validity of aggregating categorical CSR scores by analyzing individual categories separately. Our findings are presented in Table OA.2, where we report raw and scaled scores for each category. We focus on test outcomes associated with the performance-contingent dummy variable (PCEQ), although analogous results for alternative performance-contingent measures are available upon request. The coefficients of PCEQ, as depicted across one or both panels of Table OA.2, consistently exhibit positive and significant associations across five out of

six CSR categories, with the exception of the human rights category. The positive impact appears to be more pronounced within the employee relations and product quality and safety categories, as they exhibit significance in both panels. This observation underscores the overarching impact of p-c awards in fostering diverse dimensions of corporate social responsibility.

Part Three: Analysis of CSR Strengths and Concerns

We extend our analysis by decomposing CSR scores into strengths and concerns, as suggested by previous research (Mattingly & Berman, 2006; Chatterji, Levine, & Toffel, 2009; Ioannou & Serafein, 2015). The outcomes of this analysis are presented in Table OA.3, wherein Columns (1) and (2) depict the results pertaining to strengths, while Columns (3) and (4) outline those related to concerns. Notably, we focus on test outcomes associated with the performance-contingent dummy variable (PCEQ), although similar results for other performance-contingent measures are available upon request. Our findings reveal that CEO p-c compensation positively influences CSR strengths while mitigating CSR concerns. This analysis reaffirms the comprehensive impact of p-c equity awards on CSR performance across both positive and negative dimensions.

Overall, our supplementary analyses provide robust support for the primary findings of our study, indicating that CEO performance-contingent compensation fosters enhanced corporate social responsibility outcomes.

References for Online Appendix:

Chatterji, A., Levine, D., and Toffel, M., 2009. How well do social ratings actually measure corporate social responsibility? *Journal of Economics & Management Strategy* 18, 125-169.

Davidson, R., Dey, A., and Smith, A., 2019. CEO materialism and corporate social responsibility. *The Accounting Review* 94, 101-126.

Ioannou, I., and Serafeim, G., 2015. The impact of corporate social responsibility on investment recommendations: Analysts' perceptions and shifting institutional logics. *Strategic Management Journal* 36, 1053-1081.

Mattingly, J. E., and Berman, S., 2006. Measurement of corporate social action: Discovering taxonomy in the Kinder Lydenburg Domini Ratings Data. *Business and Society* 45, 1-27.

Table O.1 - Executive Level Fixed Effects

In this table, we report our regression results with executive-level fixed effects. For columns (1) to (4), the dependent variable is the raw CSR score. For columns (5) to (8), the dependent variable is the scaled CSR score. We use OLS estimation methods while controlling for firm and state×year fixed effects in all models. Standard errors are clustered at both the executive level and the year level and reported in parentheses. ***, **, * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively. See the Appendix for detailed variable explanations.

	(1) Raw CSR	(2) Raw CSR	(3) Raw CSR	(4) Raw CSR	(5) Scaled CSR	(6) Scaled CSR	(7) Scaled CSR	(8) Scaled CSR
PCEQ	0.510***				0.127***			
	(0.099)				(0.027)			
PCEQ_ACCT		0.499***				0.111***		
		(0.089)				(0.026)		
PCEQ_STKPRC		0.318*				0.096**		
		(0.161)				(0.045)		
PROPPCEQ			0.962***				0.221***	
			(0.214)				(0.063)	
PROPPCEQ_ACCT				0.806***				0.176***
				(0.207)				(0.056)
PROPPCEQ_STKPRC				0.792**				0.190*
				(0.350)				(0.097)
CEO Delta	0.019	0.018	0.024	0.025	0.003	0.003	0.004	0.005
	(0.015)	(0.014)	(0.015)	(0.015)	(0.004)	(0.004)	(0.004)	(0.004)
CEO Vega	-0.037**	-0.035*	-0.037*	-0.037*	-0.006	-0.006	-0.007	-0.007
	(0.017)	(0.017)	(0.018)	(0.018)	(0.005)	(0.005)	(0.005)	(0.005)
Total CEO Pay	0.044	0.039	0.017	0.019	0.011	0.010	0.006	0.006
	(0.061)	(0.061)	(0.061)	(0.061)	(0.015)	(0.015)	(0.015)	(0.015)
Size	0.577***	0.567***	0.613***	0.613***	0.136***	0.133***	0.145***	0.145***
	(0.138)	(0.136)	(0.139)	(0.138)	(0.037)	(0.036)	(0.038)	(0.038)
Q	0.002	0.001	0.002	0.002	0.008	0.008	0.008	0.008
	(0.048)	(0.048)	(0.048)	(0.048)	(0.014)	(0.014)	(0.014)	(0.014)
Profitability	0.204	0.199	0.216	0.210	0.032	0.032	0.034	0.034
	(0.298)	(0.303)	(0.310)	(0.315)	(0.109)	(0.110)	(0.112)	(0.113)
Cash Holding	-0.300	-0.298	-0.300	-0.293	-0.091	-0.089	-0.090	-0.088
	(0.490)	(0.486)	(0.493)	(0.489)	(0.110)	(0.109)	(0.112)	(0.111)
Free Cash Flow	0.931**	0.925**	0.953**	0.954**	0.002	0.000	0.007	0.008
	(0.439)	(0.432)	(0.431)	(0.426)	(0.118)	(0.116)	(0.115)	(0.114)

Leverage	0.697**	0.666**	0.686**	0.667*	0.190**	0.182**	0.188**	0.184**
	(0.316)	(0.312)	(0.322)	(0.319)	(0.080)	(0.078)	(0.081)	(0.080)
Capital Expenditures	0.565	0.557	0.609	0.646	-0.040	-0.043	-0.027	-0.018
	(1.568)	(1.567)	(1.572)	(1.560)	(0.379)	(0.380)	(0.379)	(0.376)
Product Concentration	-0.295	-0.299	-0.290	-0.277	-0.047	-0.047	-0.045	-0.042
	(0.185)	(0.184)	(0.186)	(0.186)	(0.049)	(0.049)	(0.049)	(0.049)
Independent Directors	0.630*	0.619*	0.712**	0.697**	0.120	0.117	0.141*	0.137*
	(0.331)	(0.333)	(0.332)	(0.330)	(0.077)	(0.076)	(0.078)	(0.077)
State-Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Executive Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,274	10,274	10,274	10,274	10,274	10,274	10,274	10,274
Adj. R-squared	0.671	0.672	0.671	0.671	0.543	0.544	0.542	0.543

Table O.2 - Different Categories of CSR

This table presents the relations between CEO p-c equity awards and six categories of CSR scores. Panel A (B) includes the regressions of the raw (scaled) categorical CSR scores on CEO p-c dummy along with all other control variables. We use OLS estimation methods while controlling for firm and state×year fixed effects in all models. Standard errors are clustered at both the firm level and the year level and reported in parentheses. ***, **, * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively. See Appendix for detailed variable explanations.

Panel A: Raw Scores

	(1)	(2)	(3)	(4)	(5)	(6)
	Environment	Community	Human	Employment	Diversity	Product
PCEQ	0.280***	-0.021	0.029	0.430***	-0.029	0.088**
	(0.088)	(0.021)	(0.021)	(0.068)	(0.069)	(0.031)
CEO Delta	0.021**	0.001	0.005**	0.020**	-0.004	0.009*
	(0.008)	(0.003)	(0.002)	(0.008)	(0.007)	(0.005)
CEO Vega	-0.040***	-0.001	-0.006**	-0.030**	0.014	-0.011**
	(0.014)	(0.004)	(0.003)	(0.011)	(0.010)	(0.005)
Total CEO Pay	-0.008	-0.010	0.005	0.017	-0.007	-0.021
	(0.030)	(0.012)	(0.011)	(0.028)	(0.026)	(0.015)
Size	0.115**	-0.006	0.041*	0.307***	0.072	0.056*
	(0.053)	(0.018)	(0.021)	(0.065)	(0.061)	(0.028)
Q	0.006	-0.018*	0.002	0.016	0.020	0.032***
	(0.021)	(0.010)	(0.005)	(0.033)	(0.022)	(0.011)
Profitability	-0.166	-0.108	-0.096	0.552***	-0.139	0.058
	(0.168)	(0.091)	(0.075)	(0.153)	(0.184)	(0.091)
Cash Holding	0.381**	0.025	0.045	-0.062	-0.519**	-0.058
	(0.170)	(0.084)	(0.059)	(0.249)	(0.196)	(0.126)
Free Cash Flow	0.395	0.164*	-0.153*	0.720**	0.246	-0.074
	(0.240)	(0.081)	(0.088)	(0.302)	(0.262)	(0.148)
Leverage	0.534**	-0.075	-0.004	0.396*	-0.215	0.117
	(0.196)	(0.081)	(0.044)	(0.220)	(0.169)	(0.085)
Capital Expenditures	-0.289	-0.051	0.003	0.739	-0.236	0.084
	(0.728)	(0.333)	(0.482)	(0.800)	(0.712)	(0.370)
Product Concentration	-0.025	-0.044	0.005	0.008	-0.139	-0.001
	(0.091)	(0.053)	(0.036)	(0.102)	(0.098)	(0.049)
Independent Directors	0.646***	-0.010	0.161**	0.194	-0.056	-0.049
	(0.184)	(0.068)	(0.058)	(0.216)	(0.160)	(0.086)
State-Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,274	10,274	10,274	10,274	10,274	10,274
Adj. R-squared	0.463	0.386	0.249	0.391	0.524	0.439

Panel B: Scaled Scores

	(1)	(2)	(3)	(4)	(5)	(6)
	Environment	Community	Human	Employment	Diversity	Product
PCEQ	0.014	0.022**	0.008	0.058***	0.060***	0.017**
	(0.008)	(0.009)	(0.007)	(0.010)	(0.019)	(0.007)
CEO Delta	0.002**	-0.001	0.002**	0.002	0.001	0.002*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)
CEO Vega	-0.004**	-0.001	-0.002**	-0.003*	-0.002	-0.003**
	(0.001)	(0.003)	(0.001)	(0.001)	(0.002)	(0.001)
Total CEO Pay	-0.001	-0.001	0.002	0.004	0.004	-0.005
	(0.003)	(0.004)	(0.004)	(0.004)	(0.007)	(0.004)
Size	-0.001	0.011	0.022**	0.035***	0.063**	0.004
	(0.005)	(0.007)	(0.009)	(0.008)	(0.025)	(0.006)
Q	-0.004	-0.003	0.001	0.004	0.018**	0.005*
	(0.003)	(0.005)	(0.002)	(0.004)	(0.007)	(0.003)
Profitability	-0.022	-0.070	-0.041	0.082***	-0.011	0.015
	(0.027)	(0.068)	(0.034)	(0.025)	(0.053)	(0.023)
Cash Holding	0.034*	0.030	0.026	-0.004	-0.158**	0.007
	(0.019)	(0.028)	(0.022)	(0.036)	(0.058)	(0.028)
Free Cash Flow	0.084*	-0.003	-0.065*	0.099*	-0.030	-0.024
	(0.040)	(0.045)	(0.034)	(0.052)	(0.088)	(0.033)
Leverage	0.023	0.022	-0.010	0.050	0.114**	0.016
	(0.026)	(0.035)	(0.017)	(0.030)	(0.052)	(0.021)
Capital Expenditures	-0.035	-0.228	0.019	0.142	-0.264	-0.007
	(0.086)	(0.184)	(0.209)	(0.116)	(0.205)	(0.097)
Product Concentration	-0.002	-0.007	-0.003	-0.005	-0.025	0.003
	(0.010)	(0.023)	(0.013)	(0.016)	(0.022)	(0.012)
Independent Directors	0.059***	0.017	0.054**	-0.005	0.019	-0.007
	(0.019)	(0.023)	(0.020)	(0.031)	(0.030)	(0.020)
State-Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,274	10,274	10,274	10,274	10,274	10,274
Adj. R-squared	0.424	0.225	0.213	0.388	0.427	0.432

Table O.3 - Strengths and Concerns of CSR

In this table, we decompose CSR scores into strengths and concerns to present the relations between p-c equity awards and CSR strengths and concerns. Columns (1) and (2) report results for CSR strengths, and Columns (3) and (4) report results for CSR concerns. We use OLS estimation methods while controlling for firm and state×year fixed effects in all models. Standard errors are clustered at both the firm level and the year level and reported in parentheses. ***, **, * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively. See the Appendix for detailed variable explanations.

	(1) Raw CSR Strengths	(2) Scaled CSR Strengths	(3) Raw CSR Concerns	(4) Scaled CSR Concerns
PCEQ	0.317***	0.066***	-0.460***	-0.112***
	(0.051)	(0.012)	(0.125)	(0.030)
CEO Delta	0.038***	0.009***	-0.014	-0.000
	(0.012)	(0.003)	(0.013)	(0.004)
CEO Vega	-0.054***	-0.015***	0.021	0.000
	(0.017)	(0.005)	(0.019)	(0.005)
Total CEO Pay	-0.081**	-0.013	-0.057	-0.016
	(0.037)	(0.011)	(0.049)	(0.011)
Size	0.535***	0.122***	-0.049	-0.010
	(0.091)	(0.023)	(0.091)	(0.022)
Q	-0.043	-0.004	-0.101***	-0.024**
	(0.042)	(0.013)	(0.033)	(0.009)
Profitability	0.178	-0.066	0.076	-0.019
	(0.220)	(0.078)	(0.377)	(0.092)
Cash Holding	-0.066	0.014	0.123	0.079
	(0.341)	(0.071)	(0.318)	(0.083)
Free Cash Flow	1.714***	0.184*	0.416	0.122
	(0.378)	(0.095)	(0.419)	(0.130)
Leverage	-0.133	-0.015	-0.886***	-0.229***
	(0.283)	(0.083)	(0.270)	(0.069)
Capital Expenditures	1.254	-0.040	1.004	0.334
	(1.313)	(0.447)	(1.385)	(0.261)
Product Concentration	-0.216	-0.041	-0.020	-0.002
	(0.173)	(0.038)	(0.122)	(0.028)
Independent Directors	0.808***	0.134**	-0.079	-0.003
	(0.252)	(0.058)	(0.279)	(0.061)
State-Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	10,274	10,274	10,274	10,274
Adj. R-squared	0.692	0.551	0.582	0.545