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CEO inside debt and corporate political disclosure

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ABSTRACT

This paper investigates the impact of CEO inside debt holdings on corporate political disclosure (CPD) using a sample of S&P 500 firms. Our results indicate that inside debt holdings motivate CEOs to enhance CPD. These findings are robust across various proxies and endogeneity tests. Our mediation analysis shows that CEOs with high levels of inside debt use CPD to reduce the firm's probability of default, improve the firm's information environment, protect corporate reputation, and secure more favorable debt contracting terms. Cross-sectional analysis reveals that the effect of CEO inside debt on CPD is stronger in financially constrained firms and in firms headquartered in more corrupt states, and it is more pronounced among Democratic CEOs compared to Republican CEOs. Overall, these findings highlight the significance of CEO incentive structures in shaping corporate disclosures.

1. Introduction

This study examines whether CEO inside debt holdings affect corporate political disclosure (CPD) using a sample of S&P 500 firms. CPD has emerged as a central issue in disclosure literature, driven by growing concerns over transparency, accountability, and stakeholder trust. The US Supreme Court decision, *Citizens United v. Federal Election Comm.*, 2010, which permitted firms to make unlimited political expenditures without stringent public disclosure requirements, has exacerbated concerns about the opacity of corporate political spending (Beets and Beets 2019; Goh et al. 2020). This discretion has led to uneven voluntary disclosure practices.

This lack of transparency has raised significant concern among stakeholders. Following the 2021 Capitol Hill attack, the Centre for Political Accountability (CPA) revealed that several public companies had donated to organizations connected to the chaos (CPA 2022). Stakeholders voice concerns that undisclosed “dark money” political contributions may signal managerial opportunism, reputational risk, or misalignment with firm strategy (Werner 2017; Baloria et al. 2019; Minefee et al. 2021; Ali et al. 2022). These issues have prompted significant shareholder demand for enhanced transparency, with the SEC receiving over 1.2 million public comment letters on the matter, the highest number in its history (Baloria et al. 2019). Meanwhile, lenders view political opacity as a source of information risk, which can increase borrowing costs and tighten credit conditions (DeBoskey et al. 2021; Almaghrabi and

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Tsalavoutas 2022). In this environment, political disclosure has come to be seen not only as a signal of ethical conduct but also as a mechanism to manage stakeholder perceptions and mitigate financial risk.

Despite increased demand for transparency, CPD remains largely voluntary in the United States and significant variation exists in disclosure practices among firms (Goh et al. 2020). This raises the question: What drives firms to disclose or conceal political spending information? Prior research highlights external pressures from shareholders, regulators, and watchdog groups (Werner 2017; Baloria et al. 2019; Minefee et al. 2021; Ali et al. 2022), but internal managerial incentives remain underexplored. While some studies explore how CEO equity incentives shape firms' disclosure practices (e.g., Aboody and Kasznik 2000; Armstrong et al. 2013; Wruck and Wu 2021), their findings suggest that this type of compensation does not effectively mitigate agency problems and, in fact, may even induce CEOs to prioritize short-term objectives, and potentially withhold information to extract private rents and achieve personal gains. In this study, we investigate the role of CEO inside debt holdings in shaping firms' political disclosure behavior.

"Inside debt holdings" refers to the unsecured and unfunded components of CEO compensation, such as pension claims and other deferred compensation, that create fixed future obligations for the firm and are contingent on the firm's solvency (Edmans and Liu 2011). Unlike equity incentives, which reward upside performance, inside debt aligns a CEO's wealth with the firm's downside risk and long-term stability (Wei and Yermack 2011). These debt-like holdings motivate the CEO to adopt conservative corporate policies, reduce risk exposure, and avoid actions that may jeopardize the firm's ability to meet future obligations (Cassell et al. 2012; Anantharaman et al. 2014). Extant literature confirms that CEOs with higher inside debt holdings implement less risky investment and financial policies and help preserve the firm's distance to default (e.g., Sundaram and Yermack 2007; Cassell et al. 2012; Dang and Phan 2016). However, the extent to which these incentives affect disclosure policies remains unclear.

There are two competing perspectives on how CEO inside debt holdings may influence CPD. One view, grounded in optimal contracting theory, suggests that CEOs with substantial inside debt are incentivised to promote political disclosure as a strategy to manage downside risk and preserve firm value. Inside debt aligns the CEO's wealth with the firm's long-term solvency, encouraging risk-averse behavior and greater openness in politically sensitive areas. Anecdotal evidence shows that transparent political disclosure creates value for firms, such as better access to finance (DeBoskey et al. 2021; Almaghrabi and Tsalavoutas 2022), lower cost of capital (Adrian et al. 2022), and positive investor reactions (Werner 2017). It is also associated with higher levels of institutional ownership, improved firm performance, and greater analyst coverage, while reducing forecast errors (Goh et al. 2020). These benefits that are particularly valued by CEOs, whose holdings depend on the firm's stability.

In contrast, an alternative perspective rooted in rent extraction theory argues that inside debt may reduce pay-performance sensitivity, leading to weaker alignment with shareholder interests and increased managerial entrenchment (Goh and Li 2015). CEOs with substantial inside debt holdings may use political engagement to pursue personal goals, such as higher compensation, post-retirement appointments, or ideological agendas (Arlen and Weiss 1995; Coates 2012; Greiner et al. 2023), while avoiding disclosure that could expose these activities to scrutiny. In such scenario, political disclosures may limit CEOs' influence by deterring political allies or constraining covert strategic behavior (Prabhat and Primo 2019; Jia et al. 2023). From this view, CEOs with substantial holdings may have incentives to obscure political spending in order to preserve discretion and extract private benefits.

To test these competing views, we use a sample of S&P 500 firms between 2012 and 2021 to examine whether CEOs' inside debt holdings are associated with political disclosure policies and practices. Consistent with the optimal contracting view, we find a positive association between inside debt holdings and political disclosure, particularly for sensitive firms' political activities, such as trade association spending, which supports the view that inside debt aligns managerial incentives with stakeholder demand for transparency. To further support our premise, the mediation analysis confirms that CPD mediates the relationship between inside debt and core firm-level characteristics, such as default risk, the firm's information environment, idiosyncratic risk, and firm reputation, while also facilitating more favourable debt contracting terms. These findings corroborate our theoretical argument that disclosure may serve as a risk management tool for CEOs holding substantial levels of inside debt.

Next, we conduct three cross-sectional tests to identify the conditions under which the effect of inside debt on CPD is intensified. First, we find that the relationship is stronger in firms facing higher financial constraints, consistent with the notion that CEOs seek to protect their deferred claims within such firms (Liu et al. 2014). Second, the relationship is also more pronounced in politically corrupt states, where disclosure may serve to shield firms from external rent-seeking (Smith 2016). Third, the effect is stronger among Democratic CEOs, whose ideological predispositions may align with and reinforce economic incentives to disclose (Bhandari et al. 2020). These findings underscore that while inside debt aligns managerial incentives with transparency, its effectiveness may depend on contextual and individual-level factors. Finally, given that CEO incentives and CPD may be endogenous, we employ different methods, including entropy balancing, instrumental variable estimation, and propensity score matching, to address potential endogeneity concerns.

This study makes several contributions to the existing literature. First, despite shareholders' growing demands for greater political transparency, to our knowledge, no prior study has investigated CEOs' incentives to induce firms' CPD. This study addresses this void by providing initial evidence of the impact of inside debt holdings on political spending disclosures. Prior studies (e.g., Cassell et al. 2012; He 2015; Wang et al. 2018) have documented that inside debt significantly affects various corporate outcomes, including, risk-taking activities, and financial reporting quality. Yet, it could be argued that the true impact of inside debt might be diminished in such studies, as financial and investment policies often remain consistent and extensively regulated, allowing for limited managerial discretion (Fee et al. 2013). However, our study departs from this line of research by focusing on unique settings having a higher degree of managerial discretion and a lightly regulated framework. Indeed, by highlighting the role of inside debt holdings in promoting political disclosure, our results suggest that inside debt may act as a substitute for strict disclosure requirements. Based on our findings, compensation committees might consider mandating the inclusion of inside debt holdings as a critical component of CEO pay structures to keep corporate political activities under investors' radar.

Second, our findings show that political disclosure is not merely a signalling mechanism or response to stakeholder pressure; it is a risk management strategy driven by managerial incentives. We show that higher levels of CEO inside debt are associated with greater political disclosure, and such disclosure practices are linked to improved financial stability, as measured by increased distance to default, higher stock liquidity, reduced firm specific risk, enhanced corporate reputation, and more favorable debt contracting terms. Our study responds to calls for greater theoretical clarity around the mechanisms linking executive incentives to disclosure outcomes (e.g., [Wruck and Wu 2021](#)) and the understanding of how compensation structure shapes corporate transparency.

Finally, we explore key mechanisms and boundary conditions that affect the strength of this relationship. We document that the effect of CEO inside debt on CPD is stronger in firms facing greater financial constraints, headquartered in more politically corrupt states, and led by Democratic-leaning CEOs. These findings highlight that the influence of inside debt incentives is shaped by both institutional context and individual preferences, expanding our understanding of how compensation structures interact with broader firm characteristics and CEO political ideology.

The remainder of this paper is organized as follows. [Section 2](#) reviews the relevant literature and develops the research hypothesis, [Section 3](#) outlines the research methodology, [Sections 4, 5, and 6](#) present our empirical findings, and [Section 7](#) concludes the study.

2. Literature and hypothesis development

2.1. Literature on the role of CEO inside debt holdings

2.1.1. A taxonomy of CEO inside debt holdings

Inside debt typically consists of two main components: defined benefit (DB) pension plans¹ and non-qualified deferred compensation plans ([Wei and Yermack 2011](#)). DB pension plans generally take two distinct forms: (a) qualified DB pension plans (regular pension plans), which are offered to all employees, and (b) non-qualified DB pension plans, known as Supplemental Executive Retirement Plans (SERPs). SERPs are non-contributory pension plans (i.e., fully funded by the firm) that designed as part of a competitive compensation package for CEOs ([Kalyta and Magnan 2008](#)). Unlike qualified plans, which must be funded under the Employee Retirement Income Security Act of 1974 (ERISA), SERPs are not subject to such funding requirements ([Cadman and Vincent 2015; Edmans et al. 2017](#)). Consequently, in the event of bankruptcy, the Pension Benefit Guarantee Corporation (PBGC) assumes responsibility for covering any shortage in qualified plans, but only up to a maximum limit (USD 141,590 per beneficiary in 2024). Any remaining balance of an executive's pension, potentially amounting to millions of dollars per year, is covered by the firm's SERP. Therefore, the bulk of executive pensions are unsecured, leaving executives' benefits at risk and contingent on firm value at liquidation ([Wei and Yermack 2011; Garman and Kubick 2025](#)).

The other component of CEO inside debt is the non-qualified deferred compensation plans (NQDC), which generally refers to a portion of the CEO's current compensation that CEO voluntarily deferred and scheduled for withdrawal at a later date ([Anantharaman et al. 2014](#)).² Like SERPs, NQDC plans are generally unsecured and unfunded, a structure that underpins their classification as "debt-like incentives". In essence, NQDC plans function as contractual commitments between the CEO and the firm and are not subject to ERISA funding regulations but are instead governed by Section 409A of the Internal Revenue Code, which discourages early withdrawal ([Shen and Zhang 2020](#)). For these plans, the underlying assets must remain accessible to the company's general creditors in the event of bankruptcy to retain their tax-deferred status. Consequently, CEOs' claims on the firm's assets through NQDC plans are analogous to unsecured debt and thus exposed to a high probability of loss if bankruptcy occurs.³

Taken together, DB pension and NQDC plans resemble debt-like payoffs (i.e., "inside debt") as they are generally unfunded and unsecured. In the event of bankruptcy, CEOs are treated as unsecured creditors and can only recover their claims proportionally to the firm's liquidation value. This structure exposes CEOs' inside debt holdings to default risk and aligns their incentives more closely with those of external creditors, which encourage risk-averse behavior and long-term value preservation.

To operationalize the concept of inside debt in an empirical construct, [Sundaram and Yermack \(2007\)](#) measure CEOs' debt-based incentives relative to their equity-based incentives using the CEO debt-to-equity ratio ($CEO\ D/E$).⁴ CEO debt is defined as the sum of the

¹ Another form of pension plans is the defined contribution plans, such as 401(k) plans. Unlike DB plans, defined contribution plans do not promise a specific retirement benefit ([Choy et al. 2014](#)). Their structure makes them less effective in curbing excessive managerial risk-taking compared to DB pension plans, which position managers as fixed claimants on firm resources, similar to creditors ([Garman and Kubick 2025](#)). More importantly, DB pensions are more often provided to CEOs, whereas defined contributions pensions are typically offered to lower-level employees ([Bebchuk and Fried 2004b](#)). [Sundaram and Yermack \(2007\)](#) report that more than half the CEOs of S&P500 firms have DB pensions. Moreover, data on defined contribution pension plans are not available in accessible databases ([Walker 2018](#)) and, when they exist for some CEOs, the amounts are generally small and difficult to measure systematically ([Wei and Yermack 2011](#)). Therefore, following existing literature on inside debt (e.g., [Cassell et al. 2012; He 2015](#), etc), we focus our discussion and analysis on DB pension plans.

² NQDC plans may take different forms. Some firms may permit deferral of salary only, while others also allow deferral of long-term incentive compensation and gains from the exercise of stock options or from the sale of restricted stock ([Bebchuk and Fried, 2004b](#)). For example, according to the proxy statement of Aflac, Inc., "The Executive Deferred Compensation Plan (EDCP) allows certain U.S.-based officers, including the Named Executive Officers (NEOs) (the "Participants"), to defer up to 75% of their base salaries and their annual non-equity incentive awards." ([Aflac Inc., 2024 p. 67](#)).

³ Although firms may use "rabbi" trusts for NQDC plans, the plans remain legally unfunded because these assets are subject to the claims of the creditors in the event of bankruptcy ([Wei and Yermack 2011](#)).

⁴ [Edmans and Liu \(2011\)](#) suggests scaling CEO debt-to-equity ratio ($CEO\ D/E$) by the firm's debt-to-equity ratio. We also employ this measure in our robustness checks.

present value of defined-benefit pensions and total balances of non-qualified deferred compensations, while CEO equity comprises the value of stock and the intrinsic value of stock options held by the CEO. A strand of empirical studies (e.g., Guay 1999; Rajgopal and Shevlin 2002; Coles et al. 2006; Armstrong and Vashishtha 2012; Armstrong et al. 2013) highlights the risk-seeking incentives associated with CEO equity-based compensation. The challenge is, when CEOs are compensated primarily with equity, they have incentives to increase firm risk beyond acceptable levels to maximize their equity values at the expense of debtholders. By contrast, when CEOs receive compensation that includes both debt and equity components, we would expect them to manage the firm more conservatively. Because equity-based incentives embed convex payoffs that encourage risk-taking, while debt-based incentives embed unsecured debt claims that encourage risk aversion, the CEO D/E ratio captures the net effect of these competing incentives. For instance, an increase in CEO equity holdings (while holding inside debt constant) reduces the CEO D/E ratio and thereby shifts the CEO's payoff structure toward that of an equity-holder, potentially heightening risk-taking incentives. Conversely, larger inside debt holdings relative to equity increase the CEO D/E ratio and align the CEO's interests more closely with debtholders, thereby mitigating traditional agency costs of debt (i.e., risk-shifting and excessive payouts). In this sense, the CEO D/E ratio measures the proportion of debt-like to equity-like incentives.

2.1.2. Related theoretical and empirical evidence

In their seminal work, Jensen and Meckling (1976) were the first to introduce the concept of inside debt in firms characterised by separation of control and ownership. In their theoretical framework, agency costs arise from the divergence of interests between CEOs and outside shareholders and debtholders. Agency costs of equity arise when CEOs use corporate resources to maximize their personal interests by maximizing shareholders' wealth. Jensen and Meckling (1976) suggested that providing CEOs with equity incentives (e.g., shares and options) would align their interests with those of shareholders. However, the associated outcome of such alignment would encourage CEOs to engage in risky actions that disproportionately benefit CEOs and shareholders at the expense of debtholders (i.e., risk shifting problem) (e.g., Dewatripont and Tirole 1994; Coles et al. 2006).⁵ As a remedy, Jensen and Meckling (1976) suggested that the optimal compensation structure should include both equity and debt in proportions that mirror the firm's capital structure, aligning the CEO's incentives with the interests of both shareholders and debtholders.

Two main theoretical perspectives dominate the literature on inside debt. The first is the optimal contracting view, which views inside debt as an effective governance mechanism to align managerial incentives with creditor interests under the threat of bankruptcy. Edmans and Liu (2011) develop a theoretical model showing that inside debt can mitigate the risk-shifting incentives created by equity compensation. They highlight that, unlike salary or bonus-based incentives, inside debt provides a positive payoff, even in bankruptcy, proportional to the firm's liquidation value. This gives CEOs a direct incentive not only to avoid default but also to preserve firm value in the longer-term or if bankruptcy occurs. They also find that offering CEOs equal proportions of equity and debt is not optimal; however, a debt-to-equity ratio with a debt bias is optimal when there is a high probability of bankruptcy and there is a need to increase the liquidation value.

In contrast, the managerial power perspective argues that inside debt can serve as a channel for rent extraction. From this perspective, large pension and deferred compensation plans may reflect CEO bargaining power rather than optimal contract design (Bebchuk and Fried, 2004a; Bebchuk and Jackson 2005). These forms of compensation are often opaque, less sensitive to performance, and not subject to the same scrutiny as equity pay (Goh and Li 2015). Bebchuk and Jackson (2005) characterize pensions as "stealth compensation." Supporting this view, Kalyta and Magnan (2008) find that the use and size of supplemental executive retirement plans (SERPs) correlate with CEO power, while Cadman and Vincent (2015) and Goh and Li (2015) find that such benefits are not strongly linked to firm performance.

On the empirical side, existing literature supports the risk-moderating role of inside debt. Sundaram and Yermack (2007) find that CEOs holding large inside debt tend to adopt strategies that reduce overall firm risk, thereby lowering the likelihood of default threatening pension payouts. Wei and Yermack (2011) find that the market responds positively to disclosure of CEO inside debt, with bond prices rising and equity prices falling, consistent with a shift in managerial alignment towards debtholders. Inside debt has also been shown to reduce corporate risk-taking (Cassell et al. 2012; Phan 2014; Srivastav et al. 2018), tax aggressiveness (Chi et al. 2017), and dividend payouts (Eisdorfer et al. 2015), while increasing cash holdings (Liu et al. 2014). From a financing perspective, inside debt is associated with favourable credit terms. Lenders perceive CEOs with large inside debt holdings as more risk-averse and creditor-aligned, resulting in lower yield spreads and fewer restrictive covenants (Chava et al. 2010; Anantharaman et al. 2014; Dang and Phan 2016; Borah et al. 2020; Shen and Zhang 2020). More recently, Chen et al. (2024) document a negative relationship between CEO inside debt and firms' exposure to ESG-related reputational risks.

Extending this literature to firms' reporting policies, He (2015) finds that inside debt holdings are associated with higher reporting quality, improved internal controls, and reduced stock price crash risk. Dhole et al. (2016) report a negative association between inside debt and both accrual- and real-based earnings management. Wang et al. (2018) show that conservative financial reporting and inside debt operate as substitutes in mitigating agency costs between CEOs and debtholders. Taken together, these findings establish that inside debt plays a critical role in shaping managerial behavior across investment, financing, and reporting domains.

Notably, existing research has predominantly focused on highly regulated settings, where violations of accounting standards can have detrimental long-term consequences for firm stability. For example, aggressive financial reporting may harm a firm's reputation

⁵ Specifically, when CEOs engage in risky projects, any potential gains are largely captured by CEOs and shareholders, while debtholders receive only a fixed payoff. However, if these risky projects fail, debtholders bear accidental risk and might lose part or full value for their investments (Harris and Raviv 1991).

and lead to significant financial penalties (Karpoff et al. 2008). In such context, CEOs with substantial inside debt holdings may have strong incentives to ensure compliance with accounting standards in order to safeguard the firm's financial health and, by extension, the value of their inside debt holdings. However, there is limited evidence on whether inside debt serves as a complement to or a substitute for strict disclosure requirements. This raises an important research question: Do inside debt holdings motivate CEOs to voluntarily disclose information not required under reporting standards? This question is particularly salient in the context of CPD, which remain relatively unregulated and lack a unified reporting framework (Goh et al. 2020). Our study addresses this gap by examining whether CEOs with significant inside debt holdings are more or less likely to disclose political spending.

2.2. Literature on corporate political disclosure

Arguably, CPD is one of the most challenging reporting decisions related to corporate political spending information. Generally, there are two main types of political spending: (1) that which is publicly disclosed, coined "observable" spending (through direct lobbying, corporate Political Action Committees (PACs), "527" organizations, and state-level spending) and (2) that which is not publicly disclosed, coined "unobservable" spending (through trade associations, and Super PACs) (Baloria et al. 2019). In general, these entities have no limit on how much they can receive from firms, implying that firms can use considerable amounts of their funds for political lobbying. While entities receiving observable spending are required to disclose the names of donors and the full amounts they received, those receiving unobservable spending have no legal obligation to disclose such information. Indeed, some firms engage indirectly in political activities through third parties, often called "intermediaries," to influence politics (Bebchuk 2019).

This lack of transparency was further amplified by the *Citizens United* (2010) decision, which lifted restrictions on corporate independent political expenditures while still prohibiting direct contributions to federal candidates. In practice, this ruling enabled firms to allocate substantial funds to political campaigns and lobbying efforts at both the federal and state levels without consistent or centralised disclosure (Coates 2012; Baloria et al. 2019).⁶

Furthermore, even for observable corporate political spending, the information is scattered among many separate filings with different agencies through their websites, including the Federal Election Commission (FEC), Internal Revenue Service, and various state-level offices (Goh et al. 2020). Investors must exert significant effort to collect and consolidate this data to form a complete view of a firm's political footprint. In addition to the difficulties in accessing reliable information, most firms fail to disclose internal policies governing political contributions, the board's oversight role, or the criteria used to evaluate political spending decisions. This opacity obscures whether such expenditures reflect firm-wide strategic interests or the personal agendas of top executives. The absence of robust disclosure practices weakens accountability and makes it difficult for investors to assess the alignment between managerial behavior and shareholder or stakeholder value.

From a theoretical perspective, voluntary disclosure reduces information asymmetry, enhances a firm's information environment, and lowers the cost of capital (Diamond and Verrecchia 1991; Healy and Palepu 2001; Graham et al. 2005). In this context, CPD can play an important signalling function. It enables investors to distinguish between politically strategic firms and those using political channels for opportunistic purposes (Bebchuk 2019). Recent empirical evidence supports this notion. Adrian et al. (2022) find that CPD reduces asymmetry between managers and investors, improves stock liquidity, and lowers the cost of equity. Similarly, firms with higher levels of political disclosure tend to face lower borrowing costs (DeBoskey et al. 2021; Almaghrabi and Tsalavoutas 2022) and attract more institutional ownership (Goh et al. 2020). CPD also communicates how firms take the advantage of political connections to secure government contracts, shape regulatory outcomes, and facilitate mergers and acquisitions (Werner 2017).

Despite the potential benefits of CPD, self-interested CEOs may have greater incentives to obscure political disclosures, particularly when such spending could be perceived as overinvestment or self-serving strategies (Greiner et al. 2023). Consequently, unless suitably compensated, risk-averse CEOs may be reluctant to disclose if they are uncertain how such disclosures might affect their wealth (Nagar 1999; Nagar et al. 2003).

Overall, CPD holds a unique setting within the broader voluntary disclosure literature, characterized by substantial managerial discretion, limited regulatory oversight, and a heightened risk of agency conflicts. As such, it offers a compelling context to examine how internal incentive structures, such as CEO inside debt, shape disclosure behavior in politically sensitive and high-discretion settings.

2.3. Hypothesis development

The structure of compensation contracts plays a predominant role in shaping managerial incentives and corporate disclosure behavior. When CEOs provide voluntary disclosures, they often do so with the expectation of influencing the market value of their equity-based compensation. While equity-based compensation is intended to align CEO incentives with shareholder interests, existing research suggests that it can instead foster short-termism, potentially leading CEOs to prioritize personal financial gains over long-term shareholder value. In particular, existing studies show that CEOs with large equity holdings are more likely to manipulate earnings (Burns and Kedia 2006), time disclosures strategically (Aboody and Kasznik 2000; Brockman et al. 2008),⁷ and reduce disclosure

⁶ According to the Center for Responsive Politics (CRP), money spent by groups that keep their donors secret increased from USD 100 million in 2008 to USD 300 million in 2012 (Salant 2016).

⁷ Nagar et al. (2003) find that voluntary disclosure is positively associated with the value of CEO equity holdings, however they do not examine whether their findings are driven by the reward effect or risk effect of equity incentives (Wruck and Wu 2021).

quality (Wruck and Wu 2021). This behavior stems from the fact that equity values are highly sensitive to share price volatility (Coles et al. 2006). That is, equity incentives may impair disclosure quality and increase information asymmetry, especially in areas where disclosure is discretionary.

Unlike equity holdings, inside debt holdings are unsecured and unfunded claims and therefore may induce CEOs to reduce firm risk, protect long-term firm value, and reduce the likelihood of default (Sundaram and Yermack 2007; Edmans and Liu 2011; Cassell et al. 2012). Indeed, inside debt holdings align the interests of CEOs with those of debtholders and incentivize CEOs to adopt a long-term perspective, prioritizing their firm's stability over short-term market performance (He 2015). Therefore, we argue that inside debt holding induces CEOs to be more transparent in non-mandatory disclosure domains (e.g., political disclosures). Drawing on the optimal contracting perspective, we discuss below how CEOs with greater inside debt holdings relative to their equity-based compensation are more inclined to enhance CPD in order to safeguard both their personal wealth and the firm's stability.

First, political transparency acts as a strategic tool for risk management. Generally, increased levels of CPD improve firms' information environment and reduce the information asymmetry among investors (e.g., Diamond and Verrecchia 1991; Healy and Palepu 2001). The absence of proper disclosure of a firm's political spending can increase investor uncertainty about its political activities. This, in turn, raises firm-specific (idiosyncratic) risk, which disproportionately harms debtholders and CEOs with inside debt incentives (Anderson and Core 2018). Cassell et al. (2012) note that CEOs with high inside debt holdings tend to prioritize firm value preservation and minimize the risk of default by avoiding actions that increase operational and financial risk. Given that higher idiosyncratic risk increases the probability of default (Chava and Purnanandam 2010), mitigating such risk is especially salient for CEOs whose inside debt is tied to the firm's solvency and liquidation value (Cassell et al. 2012). Moreover, disclosure studies evince that transparent firms generally experience lower idiosyncratic return volatility (Rajgopal and Venkatachalam 2011; Reber et al. 2022). Consequently, CEOs with a higher ratio of inside debt holdings to their equity holdings tend to strategically disclose political spending as a means of reducing firm idiosyncratic risk and preserve the value of their debt holdings.⁸

Second, He (2015) posits that inside debt holders seek to mitigate decisions that could trigger reputational damage or regulatory sanctions. Given the negative investor reactions to the accidental disclosure of firms' covert political ties (Minefee et al. 2021), such leaks can pose substantial reputational and regulatory risks. Covert political engagements are particularly susceptible to scrutiny from social activists (McDonnell et al. 2015; McDonnell and Werner 2016), and resulting political scandals can erode firm reputation, leading to declines in stock value (Hung et al. 2015) and potential CEO dismissals (Ertugrul and Krishnan 2011). Based on this, CEOs with high inside debt holdings may adopt a proactive disclosure strategy regarding their firms' political activities (i.e., reputational insurance). Such disclosure not only enhances the firm's reputation and reassures investors about the strategic value of political activities, but it also reinforces expectations of higher future cash flows (e.g., minimize regulatory costs and securing profitable government contracts) (Balaria et al. 2019; Werner 2017).

Finally, to ensure long-term stability, firms often rely on external financing to fund their new investment and ongoing operational activities. However, securing favourable financing terms requires firms to establish credibility with investors and creditors by maintaining transparent corporate disclosures and reducing information asymmetry (Healy and Palepu 2001). Political activities are inherently difficult for finance providers to monitor, especially when conducted through opaque channels, such as trade associations and Super PACs.⁹ The lack of disclosure increases finance providers' uncertainty, raising the perceived risk of expropriation or regulatory fallout. In response, creditors may impose higher interest rates, tighter covenants, or restricted access to capital (Lu et al. 2010; Demerjian 2017; Prilmeier, 2017).¹⁰ Arguably, securing debt financing on favourable terms (e.g., low interest rates and fewer covenants) increases a firm's available funds, reduces financial pressure, and thereby enhances the firm's ability to meet its future obligations, including those owed to inside debt holders. Consequently, CEOs whose incentives are tilted away from inside equity and toward inside debt could have a direct financial interest in safeguarding the firm's solvency, as their personal claims are subordinated in bankruptcy and contingent on the firm's ongoing creditworthiness.

Despite these arguments, in certain instances, CEO inside debt holdings may not necessarily enhance political disclosure; instead, such holdings may induce CEOs to obscure it. Bebchuk and Jackson (2005) argue that CEO debt holdings is a sign of "stealth" compensation and rent extraction. In particular, inside debt reduces pay-performance sensitivity, and in turn exacerbates agency conflicts between shareholders and managers. Consequently, firms with higher CEO inside debt may struggle to incentivize CEOs to prioritize shareholder value, potentially leading to CEO entrenchment issues. Prior studies (e.g., Kalyta and Magnan 2008; Cadman and Vincent 2015; Goh and Li 2015) provide evidence for the rent extraction view, particularly among powerful CEOs with high pension holdings. From this perspective, political engagement could be used by CEOs to pursue their self-interests, such as increasing their compensation (Arlen and Weiss 1995), securing political employment positions after retirement (Coates 2012), and/or gaining personal satisfaction (Greiner et al. 2023). Greater transparency might threaten these interests, motivating CEOs to obscure rather than

⁸ We use path analysis to test all our theoretical mechanisms (See Section 4.2).

⁹ A notable example of this is the Enron case, where the company employed extensive political spending to influence the passage of the Commodity Futures Modernization Act (CFMA) in 2000. This legislation effectively removed regulatory constraints on over the counter (OTC) derivatives, allowing Enron executives to engage in high-risk speculation aimed at maximizing shareholder value, often at the expense of creditors. As creditors bore the downside risk without capturing the upside returns, the collapse of Enron left unsecured creditors absorbing the majority of the losses (i.e., they recovered about 53% of their debt values) (Min 2016).

¹⁰ For instance, creditors may impose restrictive capital covenants to limit the maximum amount of debt a firm can use. The primary purpose of these covenants is to create obstacles that discourage firms from engaging in riskier activities, such as political activities, which may benefit shareholders at the expense of debtholders (Jensen and Meckling 1976; Christensen and Nikolaev 2012).

disclose political activities. In addition, exacting disclosure requirements also discourage politicians from accepting political donations, because their names could appear in company reports or website content, which might eventually affect a firm's or CEO's political ties (Jia et al. 2023). Therefore, firms with higher CEO inside debt holdings may choose not to disclose their corporate political activities if the costs of transparency outweigh the associated benefits.

To reflect these competing perspectives, we propose the following non-directional hypothesis:

H1: There is a significant relationship between a CEO's inside debt and the level of corporate political disclosure.

3. Sample and variables construction

3.1. Sample selection and variable construction

As in Goh et al. (2020), we start our sample with all firms in the S&P 500 having available Corporate Political Accountability and Disclosure Index data, created by the CPA-Zicklin Center over ten years, from 2012 to 2021.¹¹ To construct our sample, we collect data from various sources: political disclosure data are downloaded from the CPA-Zicklin Center website; executives' data are obtained from ExecuComp; financial and accounting data are collected from Compustat and Bloomberg. Finally, as in Baloria et al. (2019), data on corporate political spending are manually collected from various filings to fully capture a firm's observable spending (e.g., lobbying expenditures, contributions made by PACs, contributions to 527 organizations, and state-level spending). Lobbying expenditures and contributions to 527 organizations are obtained from the Center for Responsive Politics (CRP), contributions by PACs are obtained from the FEC website, and state-level spending data are extracted from the National Institute on Money in State Politics.

Our initial sample consists of 617 firms, with 4,021 firm-year observations having political spending disclosure data. After matching and removing firm-year observations with missing independent and control variables, we exclude non-US incorporated firms and financial firms from our sample.¹² Our final sample is 454 firms with 2,790 firm year observations. Table 1 reports the sample selection procedures and industry classifications using the SIC code; the sample is spread evenly during the sampling period and not weighted towards or restricted to particular industries.

3.2. Empirical model and variables measurement

To investigate whether CEO inside debt holdings influences the CPD level, we estimate the following empirical model (Eq. 1) (where i and t are firm and fiscal year indicators, respectively):

$$CPDisc_{it} = \beta_0 + \beta_1 CEO_{D/E_{it}} + \gamma Control_{it} + Industry\ FE + Year\ FE + \varepsilon_{it} \quad (1)$$

The dependent variable for this study is CPD level ($CPDisc$). Following prior studies (Baloria et al. 2019; Goh et al. 2020; Almaghrabi and Tsalavoutas 2022), we capture CPD levels using the CPA-Zicklin Index, which is constructed from 24 items that have a numerical score. The full CPD index is provided in Appendix A. It comprises three major categories: Disclosure, Policy, and Oversight. The disclosure sub-index (from 1 to 9) captures firms' disclosure levels by assessing whether they disclose political contributions to political candidates, parties, committees, tax-exempt 527 groups, and other such organizations, as well as trade or government associations. The policy sub-index (from 10 to 16) captures whether the firms disclose their policies governing political spending from corporate funds and the conditions needed to be met for the recipients to receive the funds. Finally, the oversight sub-index (from 17 to 24) considers information about board committees responsible for reviewing and approving political spending, ensuring internal procedures were consistent with firms' political spending policies, and overseeing firms' spending reports.

Our purpose is to examine the motives of CEOs who hold inside debt (i.e., defined pensions and non-qualified deferred compensation). We follow Sundaram and Yermack (2007) and focus on measures of inside debt that specifically related to a firm's CEO, rather than to the firm itself. The most frequent proxy for inside debt is the CEO debt-to-equity ratio ($CEO\ D/E$), where CEO debt holdings are the sum of the present value of defined-benefit pensions ($Pension_value$) and total balances of non-qualified deferred compensations ($Defer_balance$). Regarding CEO equity holdings, these are the sum of the values of both accumulated stock holdings and the Black-Scholes value of options holdings (e.g., Cassell et al. 2012; Chi et al. 2017). However, in our robustness check section, we use two alternative measures of CEO inside debt: the CEO-firm debt-to-equity ratio ($CEO_firm\ D/E$), and a binary indicator identifying cases where the CEO's debt-to-equity ratio exceeds that of the firm ($CEO_firm\ D/E > 1$). The details for variable measurement and option valuation are provided in Appendix B.

Extant research on voluntary disclosures suggests that equity-based incentives induce CEOs to enhance disclosure levels (Armstrong et al. 2013; Wruck and Wu 2021). Therefore, we control for other equity incentives, such as CEO delta ($CEO\ delta$) and CEO vega ($CEO\ vega$). We also control for CEO characteristics (Alsulami et al. 2025), including age ($CEO\ age$), tenure ($CEO\ tenure$), and

¹¹ Based on the information disclosed by the companies in their website content and reports, the CPA-Zicklin Center captures political spending disclosure for firms and creates an index to measure the level of political spending transparency. The reason for starting our sample from 2012 is that the CPA-Zicklin Center reported its first PT index in 2011 for companies in the S&P 100, then expanded its index to include S&P 200 firms in 2012 and 300 firms in 2013 and 2014. In 2015, the index was extended to include all S&P 500 firms. The data is publicly available on their website, <https://www.politicalaccountability.net/cpa-zicklin-index/>. The data was accessed on 01/04/2022.

¹² Under the Federal Election Campaign Act (FECA) of 1974, non-US incorporations are not allowed to make political contributions to influence US politics (Federal Election Commission, 2018, p.33).

Table 1
Sample selection and distribution.

Panel A: Sample selection							Firm	Firm-year				
S&P 500 with political spending disclosure data							618	4,021				
Less: Missing observations after matching with Execucomp data								(265)				
Less: Missing firms specific variables								(133)				
Less: Incorporated outside the US								(122)				
Less: Observations related to financial firms (SIC 60—69)								(711)				
Final sample							454	2790				
Panel B: Sample composition by industry and year												
Industry	Year										Total	
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021		
Construction	0	0	0	4	5	5	5	5	5	5	34	
Manufacturing	59	60	97	151	150	158	160	169	160	142	1306	
Mining	16	16	17	25	24	24	20	19	18	14	193	
Public	2	2	2	2	2	2	2	2	2	2	20	
Retail	12	12	21	33	34	33	29	30	27	17	248	
Services	9	9	23	48	49	51	56	59	63	38	405	
Transportation	27	28	38	61	63	63	61	57	52	51	501	
Wholesale	3	3	6	11	10	10	9	10	11	10	83	
Total	128	130	204	335	337	346	342	351	338	279	2790	

This table presents the sample selection procedure (Panel A) and distribution by industry and year using (Two-digit SIC Code) (Panel B).

gender (*CEO gender*). [Almaghrabi and Tsalavoutas \(2022\)](#) argue that annual political spending intensity significantly affects the level of CPD; accordingly, we control for political spending intensity (*Spending intensity*). Additionally, prior studies (e.g., [Alshehahi et al. 2023](#); [Duong et al. 2024](#)) note that the number of analysts issuing recommendations influences disclosure quality, so we control for the number of analysts' recommendations (*Analyst*). We also control for industry concentration (*HHI*), which is known to affect political disclosure ([Goh et al. 2020](#)). Finally, we control for firm-specific characteristics, such as profitability (*ROA*), leverage (*Leverage*), size (*Firm size*), capital expenditures (*Capex*), and book to market ratio (*BM*).

In order to control for industry specific effects ([Guan et al. 2025](#)) and year effects ([Ebaya et al. 2025](#)), we include both year and industry fixed effects, based on the two-digit SIC code. We also winsorize all continuous variables at the 1st and 99th percentiles to remove the effect of outliers. Also, as recommended by [Petersen \(2009\)](#), we use the heteroskedasticity robust standard errors, adjusted to account for correlations within firm and year clusters, which may affect the significance of our regression model.¹³ A list of variables and their definitions is provided in Appendix C.

3.3. Summary statistics

[Table 2](#) shows the descriptive statistics for our variables. *CPDisc* has a mean value of 46.14, demonstrating a low level of political spending transparency. Focusing on *CPDisc* components, *P_Policy* has a highest mean value of 60.03 compared to the other two categories, which are *P_Disclosure*, mean value 41.59. and *P_Oversight*, mean value 41.75. That is, most firms provide more information on their political spending policies than on the actual political payments made to candidates or the oversight mechanism used to regulate this political spending ([Goh et al. 2020](#); [Ali et al. 2022](#)). [Table 2](#) also shows that the mean CEO debt-to-equity ratio (*CEO D/E*) is around 0.283. In comparison, [Wei and Yermack \(2011\)](#) and [Shen and Zhang \(2020\)](#), reported their mean values of CEO debt-to-equity ratio are 0.22 and 0.28, respectively.

[Table 3](#) shows the correlation among all variables. The correlation coefficient between *CPDisc* and its components, *P_Disclosure*, *P_Policy*, and *P_Oversight*, is relatively high, as expected. Focusing on our main variable of interest, *CPDisc*, the correlation between *CPDisc* and *CEO D/E* is positive and statistically significant ($\rho = 0.165$; at $p < 0.01$). This preliminary result indicates a positive association between CEOs' inside debt and their disclosure level. Similarly, the positive association for other inside debt proxies still holds, with *CEO-firm D/E* and *CEO-firm D/E > 1* positively correlated with *CPDisc* at the 1 % significance level.

¹³ We do not employ firm fixed effects, as the variations in corporate political disclosures are very small within a firm across years ([Almaghrabi and Tsalavoutas 2022](#)), which means that adding firm fixed effects would remove the cross-sectional variations of interest ([Wooldridge 2016](#)). However, as suggested by [Thompson \(2011\)](#), we estimate our regressions using two-way clustered standard errors (across firms and years). In our robustness check, we employ firm-level regressions by estimating regression model using averaged CPD scores, and averaged dependent and control variables over the sample period (i.e., one observation constructed for each firm).

Table 2
Descriptive statistics.

Variables	N	Mean	SD	25th	Median	75th
<i>CPDisc</i>	2790	46.14	32.95	10.00	50.00	76.39
<i>P_Disclosure</i>	2790	41.59	35.78	5.56	38.89	75.00
<i>P_Policy</i>	2790	60.03	32.47	27.78	72.22	88.89
<i>P_Oversight</i>	2790	41.75	35.30	0.00	44.44	77.78
<i>CEO D/E</i>	2790	0.24	0.35	0.00	0.09	0.33
<i>CEO-firm D/E</i>	2744	0.61	0.74	0.01	0.36	0.95
<i>CEO-firm D/E > 1</i>	2744	0.34	0.48	0.00	0.00	1.00
<i>CEO delta</i>	2790	6.41	1.54	5.44	6.41	7.30
<i>CEO vega</i>	2790	3.63	3.18	0.00	5.23	6.53
<i>CEO age</i>	2790	57.47	6.12	54.00	57.50	61.00
<i>CEO tenure</i>	2790	6.33	6.49	2.00	5.00	8.00
<i>CEO gender</i>	2790	0.05	0.22	0.00	0.00	0.00
<i>Spending intensity</i>	2790	11.27	5.52	11.26	13.44	14.79
<i>Lobbying intensity</i>	2790	10.61	5.94	10.60	13.24	14.55
<i>PAC intensity</i>	2790	6.99	5.69	0.00	10.22	11.85
<i>Org 527 intensity</i>	2790	1.97	4.28	0.00	0.00	0.00
<i>State-level intensity</i>	2790	5.60	5.80	0.00	3.93	11.43
<i>Analyst</i>	2790	23.06	8.06	18.00	22.00	28.00
<i>HHI</i>	2790	0.22	0.18	0.12	0.16	0.27
<i>ROA</i>	2790	0.07	0.07	0.03	0.07	0.11
<i>Leverage</i>	2790	0.63	0.19	0.50	0.63	0.75
<i>Firm size</i>	2790	3.30	1.28	2.37	3.26	4.22
<i>Capex</i>	2790	0.04	0.04	0.02	0.03	0.06
<i>BM</i>	2790	0.32	0.27	0.14	0.26	0.45

This table shows the summary statistics of the variables used in the baseline analysis. All continuous variables are winsorized at the 1st and 99th percentiles. All variables are defined in Appendix C.

4. Main results

4.1. Effect of CEO inside debt on CPD level

Table 4 presents the results of our main regression. Columns 1 and 2 report basic specifications that regress the CEO inside debt (*CEO D/E*) on the CPD level (*CPDisc*) without fixed effects and other control variables (Column (1)), and with fixed effects but without other control variables (Column (2)). The results from these tests show a significant positive coefficient on *CEO D/E* (coefficients = 16.495 and 14.443 respectively, $p < 0.01$), indicating that inside debt holding acts as an incentive for CEOs to enhance their firms' political transparency. Column 3 reports the results after controlling CEO and firm specific factors, as well as including year and industry fixed effects. The positive association continue to hold. To further control the equity incentives, in Column 4 of Table 4, we include *CEO delta* and *CEO vega* in the model. In line with the conflicting effects of equity-based incentives on managerial risk-taking (e. g., Wruck and Wu 2021), our results reveals that the coefficients for *CEO delta* and *CEO vega* are not statistically significant. More importantly, the corresponding coefficient for *CEO D/E* is (9.755, $p < 0.01$). Based on our estimation in Column 4, this finding is economically significant, with a one standard deviation increase in *CEO D/E* associated with a 10.4 % increase in the *CPDisc*. Given that Table 2 shows 25 % of firms have zero inside debt holdings, it is plausible these are newer or non-traditional firms, unlike more established firms with established pension plans (Sundaram and Yermack 2007). To assess whether our results are driven by differences between high-debt and low-debt firms, we exclude firms with zero inside debt holdings from the analysis. The results reported in Column 5 show that CEOs inside debt holdings are positively associated with CPD level.

Taken together, the results presented in Table 4 offer considerable evidence suggesting that CEOs with more inside debt enhance political disclosure, presumably as a risk management strategy to protect the value of their inside debt (pension and deferred funds). Our empirical results support our theoretical argument that CEO inside debt reduces the agency problem of political information asymmetry by enhancing the level of CPD. In terms of control variables, our results are consistent with the prior literature; for instance, *Spending intensity* is positively related to CPD level (Almaghrabi and Tsalavoutas 2022). Also, higher CPD levels are associated with lower levels of industry concentration (*HHI*). This suggests that firms in very competitive industries exhibit more political transparency. This result is consistent with DeBoskey et al. (2021), whose findings show that in such industries, firms tend to disclose more information to reduce information asymmetry and enhance transparency, thus, facilitating access to capital markets and reducing the cost of debt.

4.2. Mediating effect of CPD level

So far, our hypothesis is grounded on the assumption that CEOs with substantial inside debt holdings strategically utilize CPD to safeguard both their personal financial interests and the firm's long-term stability (i.e., reduce default risk, information asymmetry, and firm specific (idiosyncratic) risk, maintain the firm's reputation, and obtain more favourable terms in debt contracting). In this subsection, we use a path analysis to formally test such conjectures. Following Dhole et al. (2016), and Li and Wang (2023a), we

Table 3
Correlation matrix.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) CPDisc	1.000										
(2) P_Disclosure	0.967***	1.000									
(3) P_Policy	0.919***	0.814***	1.000								
(4) P_Oversight	0.938***	0.843***	0.874***	1.000							
(5) CEO D/E	0.165***	0.155***	0.155***	0.159***	1.000						
(6) CEO-firm D/E	0.115***	0.117***	0.101***	0.100***	0.755***	1.000					
(7) CEO-firm D/E > 1	0.103***	0.098***	0.099***	0.096***	0.639***	0.817***	1.000				
(8) CEO delta	0.008	0.002	0.015	0.010	−0.360***	−0.249***	−0.189***	1.000			
(9) CEO vega	0.034**	0.033*	0.034**	0.028*	−0.169***	−0.030*	0.001	0.507***	1.000		
(10) CEO age	0.004	0.002	0.006	0.008	0.048***	0.042**	0.049***	0.216***	0.000	1.000	
(11) CEO tenure	−0.123***	−0.118***	−0.110***	−0.119***	−0.093***	−0.086***	−0.072***	0.486***	0.037**	0.435***	1.000
(12) CEO gender	0.057***	0.038**	0.074***	0.067***	0.038**	0.006	−0.004	−0.071***	−0.058***	−0.024	−0.079***
(13) Spending intensity	0.370***	0.330***	0.386***	0.361***	0.191***	0.100***	0.133***	0.079***	0.085***	−0.014	−0.091***
(14) Analyst	0.229***	0.222***	0.213***	0.209***	−0.094***	−0.064***	−0.054***	0.229***	0.062***	−0.078***	0.020
(15) HHI	−0.025	−0.027*	0.001	−0.037**	−0.016	0.065***	0.074***	0.077***	0.103***	0.026	−0.007
(16) ROA	−0.082***	−0.064***	−0.099***	−0.085***	−0.168***	0.101***	0.076***	0.152***	0.123***	−0.036**	0.027*
(17) Leverage	0.207***	0.183***	0.206***	0.214***	0.123***	−0.068***	−0.050***	−0.040**	−0.004	0.067***	−0.027
(18) Firm size	0.307***	0.278***	0.323***	0.290***	0.035**	0.079***	0.076***	0.205***	0.148***	0.069***	−0.041**
(19) Capex	0.040**	0.008	0.091***	0.049***	0.091***	0.039**	0.054***	−0.001	−0.027	0.006	−0.055***
(20) BM	0.072***	0.069***	0.051***	0.081***	0.195***	−0.029*	−0.038**	−0.153***	−0.154***	0.064***	−0.038**
Variables	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)		
(12) CEO gender	1.000										
(13) Spending intensity	0.012	1.000									
(14) Analyst	0.010	0.169***	1.000								
(15) HHI	0.037**	0.041**	−0.062***	1.000							
(16) ROA	0.018	−0.143***	0.051***	0.102***	1.000						
(17) Leverage	0.053***	0.238***	−0.104***	−0.049***	−0.206***	1.000					
(18) Firm size	0.055***	0.281***	0.273***	0.183***	0.072***	0.242***	1.000				
(19) Capex	0.017	0.126***	0.197***	0.029*	−0.004	−0.115***	0.019	1.000			
(20) BM	−0.005	0.103***	−0.063***	−0.114***	−0.439***	−0.061***	−0.066***	−0.043**	1.000		

This table presents a matrix of Pearson correlation coefficient pairs between key variables of interest. ***, **, and * denote significance at 1%, 5%, and 10% levels, respectively (two-tailed test). All variables are defined in Appendix C.

Table 4
CEO inside debt and corporate political disclosure.

Dep Var	Corporate Political Disclosure (CPDisc)				
	(1)	(2)	(3)	(4)	(5)
CEO D/E	16.495*** (9.92)	14.443*** (8.34)	9.897*** (6.03)	9.755*** (5.55)	6.083*** (2.000)
CEO delta				−0.323 (−0.61)	−0.060 (0.785)
CEO vega				0.196 (0.92)	0.056 (0.284)
CEO age			0.079 (0.81)	0.081 (0.83)	0.061 (0.128)
CEO tenure			−0.466*** (−5.35)	−0.437*** (−4.33)	−0.431*** (0.122)
CEO gender			2.784 (1.28)	2.894 (1.32)	6.280** (2.493)
Spending intensity			1.544*** (13.13)	1.546*** (12.94)	1.755*** (0.143)
Analyst			0.698*** (8.85)	0.708*** (8.88)	0.839*** (0.101)
HHI			−12.486*** (−3.76)	−12.349*** (−3.72)	−9.251** (3.762)
ROA			1.040 (0.11)	1.098 (0.11)	−18.127 (12.313)
Leverage			14.434*** (4.07)	14.318*** (4.02)	10.996** (4.560)
Firm size			4.992*** (9.09)	4.989*** (8.95)	3.773*** (0.662)
Capex			−16.101 (−0.80)	−14.344 (−0.72)	−8.928 (23.661)
BM			−1.503 (−0.54)	−1.417 (−0.51)	−4.288 (3.228)
Constant	42.188*** (56.76)	42.680*** (58.27)	−13.119** (−2.08)	−12.378* (−1.84)	−7.702 (8.484)
Year FE	No	Yes	Yes	Yes	Yes
Industry FE	No	Yes	Yes	Yes	Yes
Adjusted R ²	0.03	0.07	0.26	0.26	0.25
Observations	2790	2790	2790	2790	2124

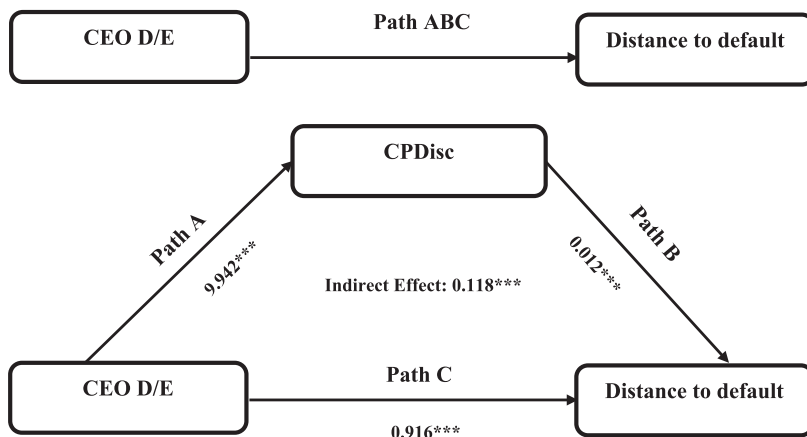
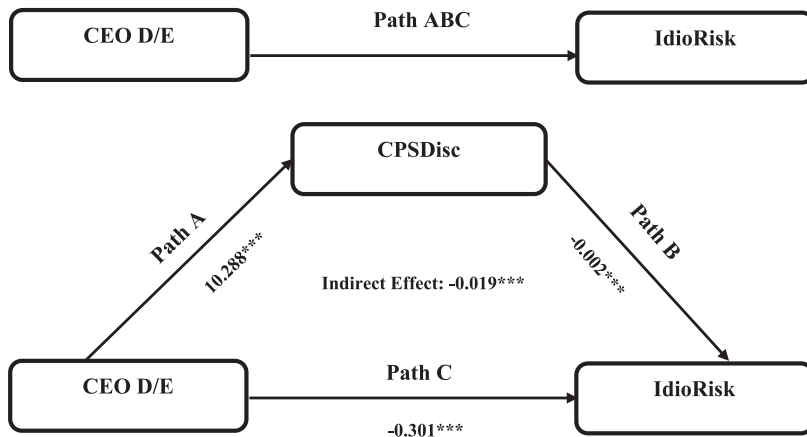
This table presents the results of the effect of CEO inside debt on the level of CPD. Columns (1–4) report the results of estimating this effect using different sets of control variables, while Column (5) focuses on firms with non-zero inside debt holdings. Year and industry fixed effects (FE) are included in all columns. T-statistics (in parentheses) are based on robust standard errors that are adjusted for heteroskedasticity and clustered by firm and year. ***, **, and * denote significance at the 1 %, 5 %, and 10 % levels, respectively. All variables are defined in Appendix C.

perform a path analysis that decompose the correlation between two variables into a direct path and an indirect path that includes a mediating variable. Figure 1 and Table 5 present the results of the path analysis. For each test, Path ABC shows the total effect of CEO inside debt on the examined outcome variable (i.e., distance to default, information asymmetry, idiosyncratic risk, firms' reputation, and cost of debt), which can be decomposed into indirect and direct effects. Path A demonstrates the effect of the treatment variable (*CEO D/E*) on the mediator (*CPDisc*), while Paths B and C demonstrate the effect of the mediator (*CPDisc*) on the examined outcome. We follow Baron and Kenny (1986) and Qin and Xiao (2024) in performing the mediation analysis.

Panel A of Table 5 presents the mediation analysis using distance to default (*DisToDef*) as a proxy to capture a firm's default risk (Sundaram and Yermack 2007). Column (1) of Panel A examines Path A and shows that CEO inside debt (*CEO D/E*) is positively related to political disclosures (*CPDisc*), consistent with our main findings. Column (2) examine Paths B and C and demonstrates that both *CEO D/E* and *CPDisc* are positively related to *DisToDef*.¹⁴ These results suggest that, after taking into account the direct effect of CEO inside debt on distance to default, CEO inside debt can also indirectly increase distance to default through its effect on increasing *CPDisc*. Using Baron and Kenny's (1986) method and Sobel's (1982) test, we find that the indirect effect through *CPDisc* is 0.114, representing 11 % of the total effect of *CEO D/E* on *DisToDef*. The z-statistic confirms significance at the 1 % level. Overall, the path analysis confirms that increased political disclosure level, induced by CEO inside debt, leads to a lower probability of default. Furthermore, Panels B and C of Table 5 present the mediation analysis using stock illiquidity (*Illiquidity*) as a proxy for information asymmetry (Cadman et al. 2023) and idiosyncratic risk (*IdioRisk*) as a proxy for firm risk (Cassell et al. 2012). The results reported in Panels B and C are consistent with our main conjecture that CEOs with high inside debt may use political disclosures to improve the information environment and mitigate idiosyncratic risk.

To explore the reputation channel, we follow Cao et al. (2024) and use firm reputation scores based on America's Most Admired Companies list (*MAScore*). Results in Panel D of Table 5 suggest that CPD may serve as a strategic tool through which inside-debt-

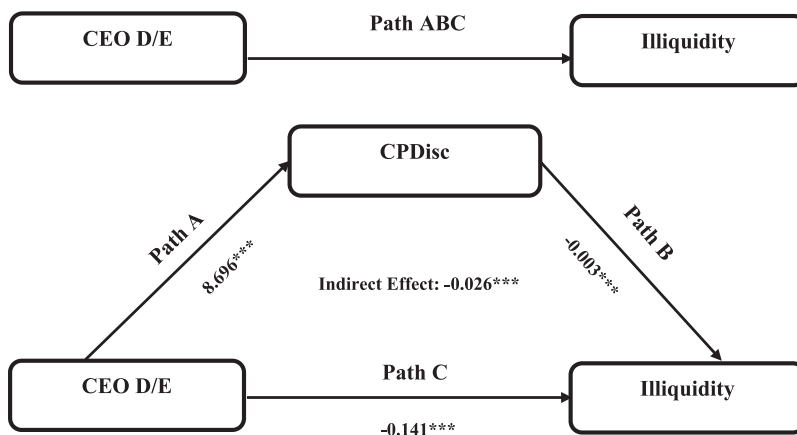
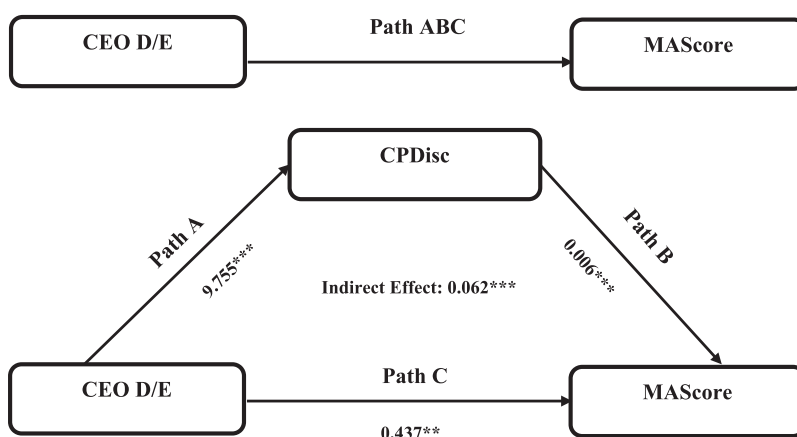
¹⁴ A higher distance to default indicates a lower likelihood of default.

Panel A: Distance to default regressions**Panel B:** Idiosyncratic risk regressions**Fig. 1.** Mediation analysis.

oriented CEOs enhance corporate reputation, an asset particularly valuable in politically sensitive or uncertain environments. Lastly, Panels E and F of Table 5 examine whether CPD contributes to more favorable debt contracting conditions. Using interest yield (*InterestRate*) and financial covenant restrictiveness (*FinancialCov*) as proxies for the cost of debt (Anantharaman et al. 2014), we find that higher CPD levels are associated with reduced borrowing costs and looser financial covenants. Collectively, these findings provide robust support for the view that CPD is strategically employed by CEOs with high inside debt to protect their financial interests and stabilize long-term firm value.

4.3. Addressing endogeneity

So far, we find that CEO inside debt plays a key role in enhancing firms' political transparency. Nevertheless, endogeneity problems are widely accepted in accounting research, potentially affecting empirical coefficients leading to biased results. The econometrics literature (e.g. Antonakis et al. 2010; Larcker and Rusticus 2010) has recommended several ways of dealing with potential endogeneity concerns. We address them four distinct ways: (1) Entropy balancing, (2) Instrumental variable (IV) approach, (3) Generalized method of moments (GMM), and (4) Propensity score matching.

Panel C: Information asymmetry regressions**Panel D:** Firms' reputation regressions**Fig. 1.** (continued).

4.3.1. Entropy balancing

It is worth noting that significant differences between firms with high- and low-inside debt in certain firm-level characteristics, raise the concern that latent variables simultaneously determine inside debt and CPD level. To address this concern, we employ the entropy-balancing method. This approach ensures that CEO and firm-level characteristics are comparable across CEOs with high and low-inside debt, thereby mitigating the potential bias from omitted variables and enhancing the robustness of our results.¹⁵

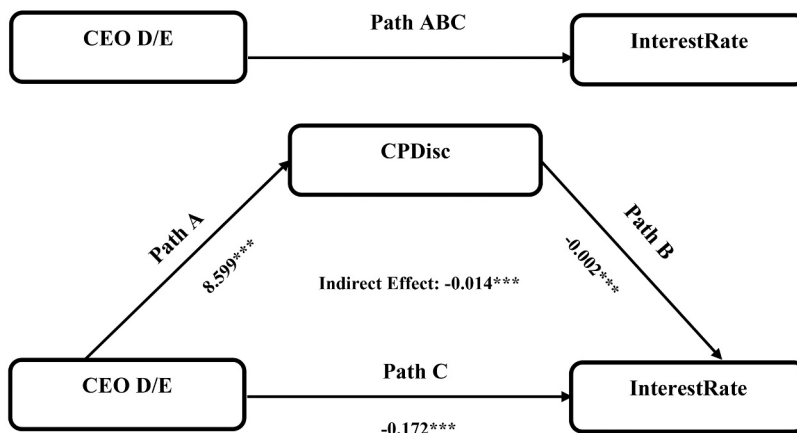
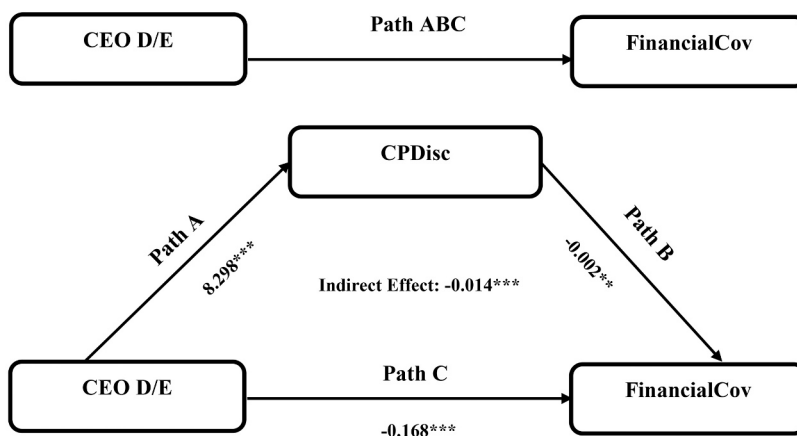
We split our sample based on the median value of inside debt. Appendix Table A1 shows there are no significant differences in control variables after entropy balancing the variables among the two groups. Further, Column 1 of Table 6 shows the regression results using entropy balancing, suggesting that CEOs with high inside debt promote more CPD. This suggests that the positive association between debt-based compensation and CPD is not driven by unobservable factors.

4.3.2. Instrumental variable approach

Two-stage least squares (2SLS) estimations are commonly used to alleviate reverse causality that may lead to endogeneity problems (Larcker and Rusticus 2010). We use three instrumental variables that directly influence CEO inside debt holdings but are unlikely to affect the CPD. The selection of the three instruments is based on previous studies: (1) Wage Tax Rate (WTR), (2) Mortgage Subsidy (MS) (e.g., Anantharaman et al. 2014; Freund et al. 2021), and (3) Marginal Tax Rate (MTR) (e.g., Lee et al. 2021).

Firstly, with regard to the WTR, anecdotal evidence suggests that tax planning options affect compensation committee strategies. Since the tax-exempted nature of defined pension benefits and deferred compensation gives CEOs the advantage of deferring their

¹⁵ Entropy balancing is a matching technique that uses a reweighting approach based on distributional properties to adjust the weights assigned to each observation and achieve covariate balance between the treatment and control groups (Chapman et al. 2019). In doing so, this method guarantees the outcomes are no longer affected by the missing variables or the differences between control variables among the two groups.

Panel E: Cost of debt regressions - Interest yield**Panel F:** Cost of debt regressions - Financial covenants**Fig. 1.** (continued).

compensation, and thus their accrued tax liability, to future periods, they may have more incentive to defer it in higher tax rate states in order to pay less tax on their deferred compensation (Chason 2006). This suggests a positive association between the WTR and inside debt compensation. Also, we expect MS to be negatively associated with CEO inside debt, since MS reduces the CEO's tax burden. Feenberg and Coutts (1993) provide data for the two variables using the TAXISM model.

Also, the MTR is one of the determinants for inside debt compensation. In particular, for firms expecting tax rates to rise in the future, the future tax deduction from pensions and deferred compensation becomes more valuable compared to the tax deduction for other compensations (Core and Guay 1999; Sundaram and Yermack 2007). We expect a negative relationship between the use of inside debt and the MTR.¹⁶

Results of the first-stage estimation are reported in Column 2 of Table 6 and show that our instruments are significantly related to CEO D/E. We find that WTR exerts a positive significant influence on CEO D/E, whereas MS and MTR exhibit negative significant effects. The second-stage estimation is reported in Column 3 of Table 6 and shows that the coefficient for the predicted value of CEO D/E remains positive and significant, suggesting that CEO inside debt continues to have a significant and positive effect on CPD level. As in Liu et al. (2014) and other studies (e.g., Mkrtchyan et al. 2023, Li and Wang 2023b), we report a greater coefficient for instrumented CEO D/E than in our baseline results. Jiang (2017) offers two potential explanations for this frequently observed phenomenon. First, the 2SLS coefficient may capture a local average treatment effect that exceeds the population average treatment effect. Second, the instruments may be weak, given that the Cragg-Donald Wald F-statistic is 29.85, which is above the Stock-Yogo weak ID test critical

¹⁶ We also considered other instruments, such as long-term capital gains tax rates, the industry median for CEO inside debt compensation, and CEO age. Previous studies suggest such variables, but they do not meet the exclusion requirement for instruments.

Table 5
Path analysis.

Dep Var	Panel A: Distance to default regressions		Panel B: Information asymmetry regressions		Panel C: Idiosyncratic risk regressions	
	CPDisc	DistToDef	CPDisc	Illiquidity	CPDisc	IdioRisk
	(1)	(2)	(1)	(2)	(1)	(2)
CEO D/E	9.942*** (5.65)	0.916*** (4.56)	8.696*** (4.91)	−0.141*** (−3.85)	10.288*** (5.83)	−0.301*** (−9.67)
CPDisc		0.012*** (4.90)		−0.003*** (−8.34)		−0.002*** (−5.48)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2782	2782	2744	2744	2743	2743
Mediating effects						
Indirect effect		0.118***		−0.026***		−0.019***
Sobel z-statistics for the indirect effect		3.701		−4.229		−3.994
Direct effect (Path C)		0.916		−0.141		−0.301
Total effect (Path ABC)		1.034		−0.167		−0.320
Total effect mediated (%)		11.41 %		15.56 %		6 %

Dep Var	Panel D: Firms' reputation regressions		Panel E: Cost of debt regressions – Interest yield		Panel F: Cost of debt regressions – Financial covenants	
	CPDisc	MAScore	CPDisc	InterestRate	CPDisc	FinancialCov
	(1)	(2)	(1)	(2)	(1)	(2)
CEO D/E	9.755*** (5.55)	0.437** (2.40)	8.599*** (3.80)	−0.172*** (−4.94)	8.298*** (3.82)	−0.168*** (−2.87)
CPDisc		0.006*** (3.30)		−0.002*** (−4.67)		−0.002** (−2.25)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2790	2790	1251	1251	1454	1454
Mediating effects						
Indirect effect		0.062**		−0.014***		−0.014***
Sobel z-statistics for the indirect effect		2.833		−2.948		−1.942
Direct effect (Path C)		0.437		−0.172		−0.168
Total effect (Path ABC)		0.499		−0.186		−0.181
Total effect mediated (%)		12.42 %		7.52 %		7.73 %

This table presents the results of the mediating effect of corporate political disclosure (*CPDisc*) on the relationship between CEO inside debt (*CEO D/E*) and distance to default, information asymmetry, idiosyncratic risk, firms' reputation, and cost of debt proxies. For each panel, Column (1) reports the results of regression when the dependent variable is *CPDisc*, and Column (2) reports the results when the mediator is *CPDisc*. Year and industry fixed effects (FE) are included in all models. T-statistics (in parentheses) are based on robust standard errors that are adjusted for heteroskedasticity and clustered by firm and year. ***, **, and * denote significance at the 1 %, 5 %, and 10 % levels, respectively. All variables are defined in Appendix C.

value of 13.91. The *Sargan-Hansen statistic* overidentification test produces a *J*-statistic of 2.70, which is statistically insignificant with a *p*-value of 0.2585. Therefore, we ascertain that our instruments are not weak and meet the exclusion criteria, suggesting that they are more likely capturing a local average treatment effect.

4.3.3. Dynamic generalized method of moments (GMM)

In the addition to the IV approach to address endogeneity, we estimate the relationship between CEO inside debt and CPD level using a dynamic GMM panel estimator developed by (Arellano and Bond, 1991). The dynamic GMM estimator is based mainly on eliminating any potential bias that may arise from time-invariant unobserved heterogeneity, and on reducing the necessity to use external instruments (Hessian et al. 2025; Wintoki et al. 2012). In our GMM estimation, we include one period lag of CPD level, as it may affect CEO holdings in the next year. Also, we follow Wintoki et al. (2012) recommendations to use the second lags of all explanatory variables as instruments and to use the year dummies as an exogenous variable.

Column 4 of Table 6 reports the results. The GMM results corroborate our OLS and 2SLS results and confirm that CEO inside debt is positively associated with CPD levels. Also, the *p*-value of *AR1* and *AR2* asserts the absence of first order and second-order serial correlations, and the Hansen test results assure the instruments' validity.

4.3.4. Propensity score matched (PSM) sample

It is possible that our baseline results are influenced by potential selection bias arising from differences between firms with CEOs with inside debt, and firms with CEOs without inside debt. This issue may bias our baseline estimated regression coefficients; therefore,

Table 6
Endogeneity issues.

<i>Dep. Var</i>	Entropy Balancing <i>CPDisc</i>	IV first stage <i>CEO D/E</i>	IV second stage <i>CPDisc</i>	GMM <i>CPDisc</i>
	(1)	(2)	(3)	(4)
CEO D/E	10.074*** (5.42)		77.958*** (6.32)	10.788** (1.98)
Wage Tax Rate		0.009*** (4.65)		
Mortgage Subsidy		−0.005** (−2.56)		
Marginal firm tax		−0.104*** (−7.83)		
CEO delta	−0.656 (−0.90)	−0.100*** (−14.10)	6.592*** (4.48)	−1.150 (−0.92)
CEO vega	0.349 (1.27)	0.005*** (2.72)	−0.216 (−0.81)	0.002 (0.00)
CEO age	0.099 (0.76)	0.003*** (3.08)	−0.120 (−0.98)	−0.113 (−0.25)
CEO tenure	−0.544*** (−4.93)	0.007*** (6.05)	−0.980*** (−5.98)	0.020 (0.06)
CEO gender	6.856*** (2.86)	0.033 (1.00)	−0.812 (−0.27)	−6.227 (−1.42)
Spending intensity	1.745*** (12.44)	0.009*** (9.52)	0.910*** (5.19)	0.478 (0.78)
Analyst	0.688*** (7.36)	−0.002*** (−2.84)	0.868*** (8.79)	0.345 (0.97)
HHI	−9.710*** (−2.61)	0.019 (0.44)	−11.172** (−2.49)	−16.390 (−0.87)
ROA	4.646 (0.40)	0.007 (0.08)	−3.586 (−0.32)	−44.243 (−1.35)
Leverage	16.330*** (3.76)	0.149*** (4.71)	4.395 (0.97)	−0.152 (−0.01)
Firm size	3.489*** (5.08)	0.030*** (5.46)	2.988*** (3.92)	−2.785 (−1.08)
Capex	−16.178 (−0.67)	0.320* (1.78)	−30.322 (−1.29)	47.182 (0.86)
BM	0.392 (0.11)	0.169*** (5.48)	−11.585*** (−2.77)	−7.328 (−0.86)
Constant	−10.719 (−1.26)	0.467*** (5.38)	−65.403*** (−5.37)	55.718 (0.53)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	2790	2783	2783	2283
Adjusted R ²	0.22			—
F Test of excluded instruments p-value	—	29.85*** (0.000)		
Cragg-Donald Wald F statistic	—	—	29.40	—
Sargan-Hansen statistic	—	—	2.70	
p-value	—	—	(0.258)	
AR1 (p-value)				0.000
AR2 (p-value)				0.853
Sargan (p-value)				0.818
Hansen-J (p-value)				0.297

This table illustrates the regression results of corporate political disclosure (*CPDisc*) on CEO inside debt and other control variables after employing entropy balance method, two-stage least squares instrumental variable (IV) regressions and GMM. For entropy balancing, the observations are weighed to equate means for covariates between CEOs with high inside debt and CEOs with low inside debt. Year and industry fixed effects (FE) are included in all models. T-statistics (in parentheses) are based on robust standard errors that are adjusted for heteroskedasticity and clustered by firm and year. ***, **, and * denote significance at the 1 %, 5 %, and 10 % levels, respectively. All variables are defined in Appendix C.

we employ the PSM method to be able to tackle this issue of selection bias (Malikov and Zalata, 2025; Rosenbaum and Rubin, 1983). We divide our sample into two groups: debt-offering firms (firms with inside debt holdings) (treatment group) and non-debt-offering firms (firms without inside debt holdings) (control group).¹⁷ For the first step of the PSM, we estimate a logistic regression of the *Debt Offer* (i.e., an indicator variable that equals 1 for treatment firms (debt offering firms) and 0 for control firms (non-debt offering firms)) on all control variables used in the main model. Using the estimated coefficients from the logistic model, we compute the

¹⁷ We thank an anonymous reviewer for suggesting this matching criterion.

propensity scores for all firms in our sample. Following [Shen and Zhang \(2020\)](#), we then match each observation in the treatment group with one in the control group, using the nearest neighbour method with a calliper of 0.01. We also employ matching without replacement, to prevent matching observations with high propensity scores more than one time ([Shipman et al. 2017](#)). We obtain a matched sample of 1,030 firm-year observations (i.e., 515 pairs of debt and non-debt offering observations).

First, we validate the balancing property of the match. The results in Panel A and B of [Table 7](#) show no statistically significant differences in attributes between the treatment and control groups. This indicates that the covariates are balanced between the two groups, which supports the reliability of the matching process. In Panel C of [Table 7](#), the result indicates that, after matching debt offering firms with non-debt offering firms of the same characteristics (matched by propensity score), the average CPD level of the debt offering sample is significantly higher than that of the matched non-debt offering sample ($\Delta = 7.865$, $pvalue < 0.01$). Moreover, for the second step of the PSM, we re-estimate our baseline regression using the propensity-score matched sample. Panel D of [Table 7](#) shows that *CEO D/E* is significantly associated with CPD (Coefficient = 2.922; $p < 0.1$). Thus, estimates of the matched sample lend support to our main findings, and provide evidence that there is no endogeneity.

5. Cross-sectional analysis

5.1. Financial constraints

Our analysis so far provides evidence supporting the notion that high inside debt for CEOs motivates increased CPD, which reduces information asymmetry, and facilitates firms' access to external financing. Prior studies highlight that financial constraints critically influence a firm's default risk, as financially constrained firms often face difficulties in securing external financing, which limits their investment capacity ([Lamont et al. 2001](#); [He and Ren 2023](#)). In these firms, CEOs with significant inside debt holdings face greater challenges in protecting the value of their deferred compensation and obtaining necessary financing ([Liu et al. 2014](#)). As a result, these firms may experience an increase in the likelihood of default ([Cathcart et al. 2020](#)). Consequently, we expect the positive relationship between CEO inside debt and political spending disclosure to be more pronounced among financially constrained firms.

To measure financial constraints, following prior studies (e.g., [Bhandari and Golden 2021](#); [He and Ren 2023](#)), we employ the KZ index as a proxy for financial constraint, where firms with a higher KZ index are more financially constrained. To enhance the reliability of our results, we use a dummy variable that takes the value of 1 if the firm is in the upper quartile of the KZ index distribution, and 0 otherwise.¹⁸

Column 1 of [Table 8](#) shows the effect of financial constraints on the relationship between CEO inside debt and CPD level. Consistent with our proposition, we find that coefficient estimates of *CEO D/E * High KZ index* is significant and positive (Coefficient = 7.924, $p < 0.01$). This provides evidence that the beneficial effect of inside debt compensation to CPD is more pronounced in firms with a high level of financial constraints.

5.2. State-level corruption

We further investigate the potential influence of political corruption on the relationship between CEOs inside debt and CPD. [Shleifer and Vishny \(1993\)](#) introduced the "grabbing hand" theory of corruption, in which government officials use their power to seize firm resources and extract rent. [Dass et al. \(2016\)](#) show that firms headquartered in politically corrupt states experience declines in their overall firm value. Therefore, firms might implement different investment policies, and disclosure policies to protect their resources and avoid engaging in corrupt practices. For instance, according to [Smith's \(2016\)](#) shielding hypothesis, firms operating in corrupted states tend to hold less cash (to be less vulnerable to bribes) and to rely more heavily on leverage to minimize expropriation by rent-seeking officials, thus avoid exposing firms to bankruptcy in the long term.¹⁹ Furthermore, [Brown et al. \(2021\)](#) provide evidence that firms located in politically corrupted states tend to use voluntary disclosure as a tool to abate corruption costs.

Considering these risks, CEOs with substantial amounts of deferred compensation may adopt a more cautious stance to safeguard their compensations. As a strategic response, they may strengthen their political activity transparency, especially when operating in states with high levels of corruption. By doing so, they aim to avoid public scrutiny and minimize potential corruption costs. To investigate our conjecture, we follow [Smith \(2016\)](#) and use the annual number of corruption conviction cases reported for each state as a proxy for political corruption. We extract the number of those convictions in each state and match that to the states in which our sample firms are headquartered. Column 2 of [Table 8](#) shows the effect of political corruption on the nexus between CEO inside debt and CPD. We find that coefficient estimates of *CEO D/E * State corruption* is significant and positive (Coefficient = 17.550, $p < 0.1$). These

¹⁸ We thank one of our anonymous reviewers for highlighting this point. Prior studies have provided several proxies to capture the level of financial constraints faced by firms. Notably, there is no consensus on which measure is the best proxy, and therefore we follow [Linck et al. \(2013\)](#) and construct a comprehensive financial constraint score based on six proxies: the SA Index ([Hadlock and Pierce 2010](#)), WW index ([Whited and Wu 2006](#)), net leverage ([Kaplan and Zingales 1997](#)), free cash flow ([Hadlock and Pierce 2010](#)), dividend payout ratio ([Almeida et al. 2004](#)), and operating cash flow ([Hadlock and Pierce 2010](#)). The constraint score is calculated as the total number of points assigned to a firm-year based on these six proxies. We then use this score to create an indicator variable, *Fin_Constraint*, which equal 1 if a firm-year has a constraint score of 3 or higher and 0 if the constraint score is 1 or lower (see [Linck et al. 2013](#), for details). In an un-tabulated test, we replace the *High KZ index* with *Fin_Constraint*, and the results are consistent with our results.

¹⁹ In an un-tabulated test, we examined this premise to validate our argument. We thank one of our anonymous reviewers for suggesting this test.

Table 7

Propensity score matching.

Panel A: Pre-match propensity score regressions and post-match diagnostic regressions				
Dep Var	Debt_Offer			
	(1)	(2)		
	Pre-match sample	Post-match sample		
CEO delta	−0.156*** (−5.61)	−0.001 (−0.04)		
CEO vega	0.113*** (9.77)	−0.003 (−0.17)		
CEO age	0.016*** (3.09)	−0.001 (−0.10)		
CEO tenure	0.002 (0.31)	−0.004 (−0.49)		
CEO gender	−0.318** (−2.43)	0.106 (0.61)		
Spending intensity	0.026*** (4.51)	−0.005 (−0.63)		
Analyst	−0.037*** (−8.49)	0.005 (0.94)		
HHI	−1.036*** (−5.71)	0.320 (1.31)		
ROA	−0.138 (−0.29)	0.359 (0.58)		
Leverage	1.014*** (5.43)	−0.004 (−0.02)		
Firm size	0.284*** (9.46)	−0.020 (−0.48)		
Capex	0.272 (0.27)	−0.677 (−0.52)		
BM	0.293* (1.92)	0.080 (0.39)		
Constant	0.721 (1.51)	−0.366 (−0.58)		
Year FE	Yes	Yes		
Industry FE	Yes	Yes		
Pseudo R ²	0.22	0.008		
Observations	2790	1030		
Panel B: Differences in firm characteristics				
Variables	Firm-year obs. with Debt-offering (n=515)	Firm-year obs. without Debt-offering (n=515)	Diff (1)– (2)	t-statistics
CEO delta	6.222	6.284	−0.061	−0.640
CEO vega	2.915	2.972	−0.056	−0.290
CEO age	57.120	57.305	−0.184	−0.450
CEO tenure	5.922	6.211	−0.289	−0.740
CEO gender	0.060	0.052	0.007	0.540
Spending intensity	10.250	10.305	−0.054	−0.150
Analyst	23.194	23.052	0.141	0.260
HHI	0.230	0.222	0.008	0.700
ROA	0.081	0.081	0.000	0.020
Leverage	0.605	0.603	0.002	0.160
Firm size	3.060	3.076	−0.016	−0.200
Capex	0.041	0.041	−0.001	−0.240
BM	0.303	0.296	0.006	0.430
Panel C. Propensity score matching estimator				
Variable	Firm-year obs. with Debt-offering	Firm-year obs. without Debt-offering	Diff (1)– (2)	t-statistics
CPDisc	Unmatched 49.716	34.735	14.980***	10.43
	Matched-ATT 44.171	36.306	7.865***	3.85
Panel D: Post Match OLS Regression				
Dep. Var.			CPDisc (1)	
CEO D/E			2.922* (1.89)	
(continued on next page)				

(continued on next page)

Table 7 (continued)

Panel D: Post Match OLS Regression	
Dep. Var.	CPDisc (1)
All Controls	Yes
Year FE	Yes
Industry FE	Yes
Adjusted R ²	0.24
Observations	1030

This table presents the regression results of corporate political disclosure (CPDisc) on CEO D/E and other control variables after employing the Propensity Score Matching (PSM) technique. We split our sample into two groups: debt-offering firms (treatment) and non-debt-offering firms (control). We then obtain comparable firm pairs with similar characteristics according to the following procedures. First, we estimate a logit model in which the dummy of debt-offering firms is the dependent variable (Debt Offer). Next, we match each observation in the treatment group with one from the control group using the nearest neighbor with a caliper of 0.01 and without replacement. Panel A reports pre-match propensity score regressions and post-match diagnostic regressions. Panel B reports univariate mean comparisons between treatment and control firms' characteristics and their corresponding T-statistics. Panel C reports the average treatment effects. The ATE and ATT of debt-offering firms on CPD (Δ) are estimated by the difference between the mean changes of firms with debt offering (Treated) and that of matched firms with non-debt-offering (control). For Panel A, B, and C, T-statistics with robust standard errors are in the final column. Panel D provides regression results using the matched sample. Year and industry fixed effects (FE) are included in the regression. T-statistics (in parentheses) are based on robust standard errors that are adjusted for heteroskedasticity and clustered by firm and year. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. All variables are defined in Appendix C.

Table 8

Cross sectional analysis.

Dep Var	Corporate political disclosure (CPDisc)		
	(1)	(2)	(3)
CEO D/E	6.396*** (2.90)	9.799*** (5.62)	11.091*** (6.11)
CEO D/E * High KZ index	7.942*** (2.62)		
CEO D/E * State corruption		17.550* (1.87)	
CEO D/E * RepIndexTen			-10.943*** (-3.61)
High KZ index	-2.130 (-1.28)		
State corruption		7.475* (1.84)	
RepIndexTen			-1.714 (-1.30)
Constant	-9.851 (-1.45)	-9.687 (-1.44)	-7.581 (-1.11)
Controls	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Adjusted R ²	0.26	0.26	0.26
Observations	2776	2790	2774

This table presents the regression in which the dependent variable is corporate political disclosure (CPDisc). *High KZ index* is an indicator variable that takes the value of 1 if the firm is in the upper quartile of the distribution of the KZ index, and zero otherwise. *State corruption* is the annual number of corruption convictions from the Department of Justice Public Integrity Section divided by the population in the state and then multiplying by 100,000. *RepIndexTen* is an index is computed as the total donations to the Republican Party minus the total donations to the Democratic Party, divided by the total donations to both parties over the CEO's entire tenure. Control variables are similar to Table 4, but their coefficient estimates are not reported for brevity. Year and industry fixed effects (FE) are included in all models. T-statistics (in parentheses) are based on robust standard errors that are adjusted for heteroskedasticity and clustered by firm and year. ***, **, and * denote significance at the 1 %, 5 %, and 10 % levels, respectively. All variables are defined in Appendix C.

findings suggest that CEO inside debt enhances political transparency in highly corrupted districts and lend support to the “grabbing hand” theory of corruption, in which CEOs with high inside debt adjust the political disclosure level to abate political corruption costs.

5.3. CEO political ideology

Insights from upper echelons theory suggest that “executives inject their personal givens, knowledge, assumptions, and beliefs into their business decisions” (Hambrick 2007; Gupta et al. 2018). Drawing on this, when political ideology is considered one of the main implicit executive values, it ultimately influences their decision-making and therein shapes organizational outcomes. The most

powerful way to capture differences in political ideology is the liberal-to-conservative or left–right distinction (Jost 2006). Individuals with liberal ideologies share similar perspectives, such as concern for equality in economic opportunity, social justice, human rights, environmental management, collective responsibility, and egalitarianism, while conservatives tend to endorse traditional values, the status quo, free market competition, and individual responsibility (Jost et al. 2003; Jost 2006). Particularly, conservatives tend to resist change from the familiar and are less likely to accept strong external stimuli on these issues than liberals (Tetlock 2000).

These ideological traits translate into distinct preferences regarding corporate disclosure outcomes (e.g., Cohen et al. 2019; Arian et al. 2023; Elnahas et al. 2024). Democratic-leaning executives, consistent with liberal values, are typically more open to stakeholder engagement, regulatory oversight, and voluntary disclosure practices (Chin et al. 2013; Hutton et al. 2015; Chin and Semadeni 2017). In contrast, Republican-leaning executives, who prioritize firm autonomy and limited government intervention, may view extensive disclosure, especially on politically sensitive matters such as corporate political activity, as a potential risk to organizational control or a trigger for regulatory scrutiny (Hutton et al. 2015). This is supported by recent empirical evidence showing that Republican CEOs are generally less transparent than Democratic CEOs (Cohen et al. 2019). While both Republican and Democratic CEOs with high inside debt share the same risk-mitigation motives, Republican CEOs may be less inclined to fully pursue CPD due to ideological preferences. As a result, although inside debt strengthens the incentive for CPD, this relationship is notably less pronounced among Republican CEOs, who may strategically limit disclosure to avoid drawing regulatory attention or scrutiny, even at the cost of reducing some of the risk-reducing benefits of CPD. Consequently, we investigated whether a Republican CEO with significant inside debt will opt for lower levels of disclosure than a Democratic CEO with similar incentives. In other words, we investigate whether CEO political orientation moderates the relationship between CEO inside debt and political disclosure.

To investigate this conjecture, we capture CEOs' political ideology through their political contributions to Republican and Democratic Senate, House, and presidential candidates, as well as to party committees during political campaigns.²⁰ We obtain the data from the FEC website,²¹ which provides the political contributions of each donor associated with his or her occupation and employer's name. The ExecuComp database provides the executive name, company name, and fiscal year, which we match with the donor's name, employer, and transaction date provided by the FEC website. We manually collect the political donation data for all executives from 1996 to 2022 to avoid any bias in our results. Following prior studies (Unsal et al. 2016; Hutton et al. 2015; Bhandari et al. 2020; Elnahas et al. 2024), we employ Republican Index Tenure (*RepIndexTen*) as a measure of a CEO's political ideology. This index is computed as the total donations to the Republican Party minus the total donations to the Democratic Party, divided by the total donations to both parties over the CEO's entire tenure. This index ranges from -1 (indicating a strong Democrat) to 1 (indicating a strong Republican).

Column 3 of Table 8 shows the effect of political ideology on CEO inside debt holdings and CPD. We find that coefficient estimates of *CEO D/E* is still positive and significant while those of *CEO D/E * RepIndexTen* is significant and negative (Coefficient = -10.943 , $p < 0.01$).²² That is, while Democratic CEOs with high inside-debt-based compensation are more transparent with respect to political spending, Republican CEOs, even when incentivized with inside debt, are more likely to engage in less transparent practices, potentially due to their conservative ideologies to prioritise firms' economic benefits, maintain competitive advantages and protect proprietary information. This finding suggests that the alignment between CEO inside debt and CPD is not merely a matter of financial incentives, but also deeply associated with the CEOs' political beliefs.

5.4. CFOs' inside debt

Extant research shows that CEO and CFO incentives could jointly and separately affect disclosure levels. On the one hand, some studies argue that CFO incentives have a more significant impact than CEO incentives on disclosure policy (e.g. Chava and Purnanandam 2010; Jiang et al. 2010). This is likely because CFOs receive higher bonuses and are incrementally rewarded when their companies achieve earnings forecasts and better disclosure quality, so they would strive to enhance disclosure quality. On the other hand, other studies showing CEO incentives to be more powerful than CFO incentives in regard to reporting practices. This is likely due to any contest over preferences between the CEO and CFO being won by the CEO, who has authority to fire the CFO (Mian 2001). As a result, CFO incentives have less impact on disclosure policy in the presence of large CEO incentives (Chi et al. 2017).

Therefore, under this further analysis, we focus on both CEO and CFO inside debt. Following (Jiang et al. 2010; Chi et al. 2017), we investigate separately and jointly the effect of CFOs inside debt on CPD level. Column 1 of Table 9 focuses on CFOs with inside debt. The results show that *CFO D/E* has an impact on CPD. Compared to the coefficients of CEO inside debt (as reported in Tables 4 and 12) and CFO inside debt (reported in Table 9), CEOs' debt compensation has a more substantial impact on CPD. Therefore, we jointly include CEO and CFO inside debt in the regression models. In Column 2, we find *CEO D/E* to be significantly related to political transparency and *CFO D/E* to be insignificant. Thus, we are able to conclude that CEO inside debt affects political disclosure more than CFO inside debt does. This result is consistent with studies that compare CEO and CFO incentives and their effects on corporate disclosure decisions (Chava and Purnanandam 2010). In sum, we find evidence that CEO inside debt has a more substantial effect on

²⁰ CEOs can contribute to political parties in two ways: indirectly through a company's Political Action Committee (PAC), and directly through individual contributions. Identifying CEO ideology by tracking PAC contributions is challenging, since PACs contribute to multiple parties simultaneously (Cooper et al. 2010). Therefore, we focus on their direct contribution to political parties.

²¹ See <https://www.fec.gov/> for detail.

²² We also employ alternative proxy, *Rep_Dummy* as an indicator variable that equals 1 if a CEO donated more to the Republican party than to the Democratic party during her/his entire tenure, and 0 otherwise. Our results remain consistent across this measure (untabulated).

Table 9
CFO inside debt, CEO inside debt, and corporate political disclosure.

Dep. Var.	Corporate political disclosure (CPDisc)	
	Sample with CFO only (1)	CEO vs CFO (2)
CFO D/E	6.679*** (4.48)	2.468 (0.92)
CEO D/E		8.383** (2.49)
Constant	−30.957*** (−4.96)	−31.112** (−2.15)
Controls	Yes	Yes
Year FE	Yes	Yes
Industry FE	Yes	Yes
Adjusted R ²	0.25	0.27
Observations	2737	2737

This table presents the regression results of corporate political disclosure (CPDisc) on CFO inside debt (CFO D/E) and other control variables. Column (1) includes CFO inside debt as a main independent variable. Column (2) includes both CEO inside debt and CFO inside debt as independent variables. Control variables are similar to Table 4, but their coefficient estimates are not reported for brevity. Year and industry fixed effects (FE) are included in all models. T-statistics (in parentheses) are based on robust standard errors that are adjusted for heteroskedasticity and clustered by firm and year. ***, **, and * denote significance at the 1 %, 5 %, and 10 % levels, respectively. All variables are defined in Appendix C.

CPD than CFO inside debt does.

6. Robustness check

6.1. CPD index components

The CPA-Zicklin score for CPD comprises three categories: disclosure (*P_Disclosure*), policy (*P_Policy*), and oversight (*P_Oversight*). The first category comprises nine items, and the information for the first two items must be disclosed in FEC and Senate Office filings (Goh et al. 2020). Therefore, one could argue that our previous findings might be driven by mandatory instead of voluntary components. As a remedy, and to ensure robustness of the findings, we repeat our regression by replacing the main dependent variable (CPDisc) with the three individual categories (*P_Disclosure*, *P_Policy*, *P_Oversight*). The results in Panel A of Table 10 are consistent with our main analysis.

As a further robustness test, we focus our analysis on disclosure of payments to trade associations and other tax-exempt organizations made as “dark money” or unobservable expenditures. While these organizations must report their receipts and disbursements, including their recipients, to the IRS, they do not have to report the names of donors (Baloria et al. 2019). Therefore, corporations can have unlimited political spending without effectively disclosing anything. This was evidenced via a 2021 report by the CPA, which reported 259 companies from the S&P 500 (51.8 %) disclosed their contributions to candidates, parties, and committees, whereas only 152 companies (30 %) disclosed their contributions to trade associations, and only 147 companies (29 %) disclosed their contributions to other-tax exempt organizations (CPA 2021). Accordingly, in this analysis, we pay particular attention to these categories when investigating whether inside debt enhances CPD. Arguably, hiding such risky information could attract scrutiny by interested stakeholders, which might lead to reputational damage, so CEOs with more inside debt would pay greater attention to disclosing such risky information.

We re-estimate our regression by replacing CPDisc with a measure of *Dark money disclosure*. This measure focuses on the highest-scoring components in the disclosure category (i.e., components 4 and 5), which capture (i) payments to trade associations (component 4) and (ii) payments to other tax-exempt organizations, such as 501(c)(4)s (component 5). Specifically, *Dark money disclosure* refers to a composite disclosure index capturing the extent to which a firm publicly discloses such payments. The index is computed as ((component 4 + component 5) / 12 (maximum score)) × 100, which is then expressed as a percentage ranging from 0 % (poor dark money spending disclosure) to 100 % (full dark money spending disclosure). Interestingly, as shown in Panel B Column 1 of Table 10, our results remain robust and consistent with our main findings in Table 4. This suggests that inside debt holdings are an effective mechanism to enhance disclosure, particularly in addressing issues such as dark money expenditure. Similarly, for the other two categories, policy and oversight, we choose the highest component in each category for policy component 10, *Detailed policy*, and for oversight component 22, *Detailed report*. Panel B Columns 2 and 3 of Table 10 show a positive and significant relation between CEO inside debt and these components. In short, these results lend support to our main findings.

6.2. Sample selection bias

One caveat of our findings is that they might be subject to sample selection bias, because we use S&P 500 firms with data from the

Table 10

CEO inside debt, and different types of corporate political disclosure.

Panel A: The three sub-indices of corporate political disclosure			
<i>Dep. Var.</i>	<i>P.Disclosure</i> (1)	<i>P.Policy</i> (2)	<i>P.Oversight</i> (3)
CEO D/E	11.982*** (5.78)	5.306*** (3.39)	9.579*** (5.10)
Constant	−13.604* (−1.81)	2.722 (0.40)	−24.625*** (−3.34)
Controls	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Adjusted R ²	0.22	0.27	0.25
Observations	2790	2790	2790
Panel B: The sensitive components in each of the three indices of CPD			
<i>Dep. Var.</i>	<i>Dark money disclosure</i> (1)	<i>Detailed policy</i> (2)	<i>Detailed report</i> (3)
CEO D/E	10.292*** (4.17)	0.324*** (3.37)	0.484*** (5.49)
Constant	−9.926 (−1.17)	1.290*** (2.83)	−0.894*** (−2.71)
Controls	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Adjusted R ²	0.19	0.25	0.23
Observations	2790	2790	2790
Panel C: Heckman Test			
<i>Dep Var</i>	First stage <i>S&P500_dummy</i> (1)	Second stage <i>CPDisc</i> (2)	
CEO D/E		6.062*** (3.59)	
YrShareTurnover	−0.002* (−1.96)	−0.218*** (−3.90)	
LogMinTradVolume	0.061*** (3.72)	7.223*** (8.69)	
LogMarketCap	0.968*** (53.45)	13.587*** (6.86)	
IPODate	0.083 (0.24)		
EligibleExc	−1.857*** (−2.60)		
EligibleShare	1.374*** (30.24)		
PastQrEarnings	−0.052 (−1.38)	60.753** (2.16)	
PastQrEarningsDum	0.164*** (3.50)	−5.742*** (−2.79)	
PastYrEarnings	0.017 (1.63)	−14.514 (−1.12)	
PastYrEarningsDum	0.258*** (4.88)	−1.477 (−0.53)	
CEO delta		−1.872*** (−3.63)	
CEO vega		0.635*** (3.04)	
CEO age		−0.055 (−0.59)	
CEO tenure		−0.179* (−1.89)	
CEO gender		3.177 (1.49)	
Spending intensity		0.946*** (7.75)	
Analyst		0.015 (0.16)	
HHI		−10.368*** (−3.40)	

(continued on next page)

Table 10 (continued)

Panel C: Heckman Test		
Dep Var	First stage <i>S&P500_dummy</i> (1)	Second stage <i>CPDisc</i> (2)
ROA		−6.754 (−0.34)
Leverage		16.638*** (4.65)
Firm size		0.578 (0.96)
Capex		32.177* (1.68)
BM		0.445 (0.15)
InvMillsRatio		11.470*** (2.89)
Constant	−16.424*** (−20.01)	−262.626*** (−7.51)
Year FE	Yes	Yes
Industry FE	Yes	Yes
Pseudo R ² / Adjusted R ²	0.60	0.34
Observations	38,176	2753
Panel D: Additional controls, and alternative model specification		
Dep. Var.	Additional controls (1)	Alternative specifications (2)
CEO D/E	6.664*** (3.63)	8.924*** (4.94)
Constant	−76.953*** (−6.81)	−11.474* (−1.67)
Controls	Yes	Yes
FE	Year	Election year
FE	Industry	Industry
Adjusted R ²	0.29	0.23
Observations	2397	2790

Panel A reports the results of regression estimating the relationship between CEO inside debt (*CEO D/E*) and the three sub-indices of CPD. Panel B reports the regression estimating the relationship between the CEO inside debt and the sensitive components in each of the three sub-indices of CPD. Panel C reports the Heckman test. Panel D reports the results of alternative model specification. Control variables are similar to Table 4, but their coefficient estimates are not reported for brevity. Year and industry fixed effects (FE) are included in all models. T-statistics (in parentheses) are based on robust standard errors that are adjusted for heteroskedasticity and clustered by firm and year. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. All variables are defined in Appendix C.

Corporate Political Accountability and Disclosure Index, created by the CPA-Zicklin Center. To address this concern, we implement a Heckman two-stage selection model using an expanded dataset that includes firms beyond the CPA-Zicklin sample. The Heckman model employs a two-equation approach: a selection equation, which identifies factors influencing a firm's inclusion in the S&P 500 index, and a regression equation, which estimates the relationship between CEO inside debt holdings and CPD levels, while correcting for potential selection bias.

In the first stage, we estimate a probit model with a binary dummy (*S&P500_dummy*) as the dependent variable, which equals 1 if a firm is on the S&P 500 index, and 0 otherwise. As recommended by [Lennox et al. \(2012\)](#), we run the first stage regression on all firms in the *CRSP-Compustat* merged database, over the period from 2012 to 2021, including our sample dataset. We use the methodology published by the S&P Dow Jones to identify the factors influencing a firm's inclusion on the S&P 500 index. The S&P 500 index methodology provides considerable discretion to the index committee in determining which securities are added to or deleted from the index. In making these decisions, the committee considers a range of factors, including market capitalization, public float, financial viability, adequate liquidity, sector representation and company type. Accordingly, following [Li et al. \(2018\)](#) and [Cziraki and Robertson \(2021\)](#), we consider the following ten determinants (*YrShareTurnover*, *LogMinTradVolume*, *LogMarketCap*, *IPODate*, *EligibleExc*, *EligibleShare*, *PastQrEarnings*, *PastQrEarningsDum*, *PastYrEarnings*, and *PastYrEarningsDum*).²³ As shown in Column 1 of Panel C in Table 10, the results of the probit regression are consistent with prior studies ([Cziraki and Robertson 2021](#)).

Among the ten identified determinants, we exclude *IPODate*, *EligibleExc*, and *EligibleShare*, as we believe that although these factors affect the likelihood of a firm's inclusion in the S&P 500 index, they do not directly influence the firm's disclosure policies. Therefore, in the second stage regression, we include inverse Mills ratio (*InvMillRatio*) generated from selection equation and all the independent

²³ All variables are defined in Appendix C.

variables from first stage except *IPODate*, *EligibleExc*, and *EligibleShare*. The results in Column 2 of Panel C in Table 10 consistent with our main findings, suggesting that the key relationships identified in the main analysis are unlikely to be driven by sample selection bias.

6.3. Additional controls and alternative model specifications

To further address the concern that CPD levels might serve as a proxy for unobservable firm characteristics influencing disclosure, we incorporate additional potential determinants of CPD, such as board size (*board size*), independence (*board independence*), duality (*CEO duality*), and firm age (*Log (age)*), into our analysis. Due to substantial missing data for these variables, they are not included in our primary model. However, their inclusion in supplementary analyses helps mitigate concerns about omitted variable bias and reinforces the robustness of our findings. We also test the robustness of our findings to alternative model specifications, including replacing the year fixed effects with an election dummy and a president change dummy. The results in Panel D of Table 10 support our main findings.

6.4. Other proxies for CEOs' inside debt

As a further robustness check, we repeat our main analysis using two alternative measures of CEO inside debt. Our first alternative measure is the CEO's debt-to-equity ratio to firm's debt-to-equity ratio (*CEO-firm D/E*). This metric stems from [Edmans and Liu \(2011\)](#), whose theoretical perspective was that when a CEO's own debt-to-equity ratio is equal to the firm's debt-to-equity ratio, there are no incentives for CEOs to reallocate their wealth between debt and equity. Conversely, when a CEO's own debt-to-equity ratio is greater than the firm's, CEOs will be incentivized to have more conservative policies and make less risky decisions, in order to protect their interests, because they are more aligned with debtholders'.

Our second alternative measure is an indicator variable equal to 1 if the CEO to firm debt-to-equity ratio exceeds 1 and 0 otherwise (*CEO-firm D/E > 1*) ([Cassell et al. 2012](#)). We report the findings of this analysis in Table 11, which shows that the estimated coefficient on both alternative measures of CEO inside debt (*CEO-firm D/E*, *CEO-firm D/E > 1*) are significant and positive with political spending disclosure (*CPDisc*). For instance, for our sample, a one standard deviation in the CEO to firm debt-to-equity ratio (*CEO-firm D/E*) increases *CPDisc* by 4 %. Overall, the results in Table 11 support that CEO inside debt acts as a mechanism to enhance CPD.

7. Summary and conclusion

While existing studies have investigated the consequences of CPD (e.g., [Werner 2017](#); [DeBoskey et al. 2021](#); [Goh et al. 2020](#); [Almaghrabi and Tsalavoutas 2022](#)), they have paid less attention to the managerial incentives resulting from pay structure. Therefore, we shed light on the role of inside debt holdings in motivating CEOs to enhance CPD.

Using a sample of S&P 500 firms between 2012 and 2021, consistent with optimal contracting view, our results suggest that inside debt holdings encourage CEOs to promote greater CPD, more precisely, disclosure of corporate dark money expenditures. To further support our main argument, we conduct a mediation analysis and find that CPD plays a mediating role in the relationship between inside debt and key firm-level attributes, including default risk, the information environment, idiosyncratic risk, corporate reputation,

Table 11
Alternative measures for CEO inside debt.

Dep. Var.	Corporate political disclosure (CPD)	
	(1)	(2)
CEO-firm D/E	4.896*** (5.86)	
CEO-firm D/E > 1		5.200*** (4.08)
Constant	−14.354** (−2.06)	−10.609 (−1.53)
Controls	Yes	Yes
Year FE	Yes	Yes
Industry FE	Yes	Yes
Adjusted R ²	0.25	0.24
Observations	2744	2744

This table presents the regression results of corporate political disclosure (*CPDisc*) on alternative measures for CEO inside debt and other control variables. *CEO-firm D/E* is measured by natural log of one plus the ratio of CEO debt-to-equity to a firm's debt-to-equity; where firm's debt-to-equity ratio is the ratio of total debt scaled by market value of equity. *CEO-firm D/E > 1* is a dummy variable equal to one if the CEO debt-to-equity to a firm's debt-to-equity greater than one, and zero otherwise. Year and industry fixed effects (FE) are included in all models. T-statistics (in parentheses) are based on robust standard errors that are adjusted for heteroskedasticity and clustered by firm and year. ***, **, and * denote significance at the 1 %, 5 %, and 10 % levels, respectively. All variables are defined in Appendix C.

and debt contracting terms. We also document that CPD facilitates more favorable debt contracting terms. Collectively, these results are consistent with the view that CEOs with substantial inside debt holdings strategically employ CPD to enhance firm stability and reduce agency-related frictions. We dig deeper and focus our analysis on specific contexts under which the reported results are more likely to emerge. In essence, the cross-sectional analysis shows that the impact of inside debt holdings on CPD is more pronounced in firms with greater financial constraints. We also find that this effect is amplified when firms are headquartered in more corrupt states. Moreover, when examining CEO political ideology, we find that Democratic CEOs with high inside debt holdings are more transparent with respect to political spending than their Republican counterparts.

Our findings have important policy implications, particularly for boards of directors, compensation committees and investors. In essence, a company's board of directors, particularly the compensation committees, should reevaluate executive compensation design and strategically include inside debt in CEO's pay packages. By doing so, the boards can promote transparency which in turn, can lessen the monitoring burden on the board, as CEOs become more intrinsically motivated to provide more information, particularly in less regulated areas such as CPD. Similarly, investors may perceive the absence of inside debt in CEOs compensation as a cause of concern, as it could trigger CEOs to prioritize shorter-term prospects, potentially leading to the concealment of political spending information and reduced disclosure. Investors, especially institutional investors, may also engage with firms' board of directors to advocate for the inclusion of inside debt in CEO's pay package as a strategic tool to enhance the overall information environment.

However, this study is not without limitations. It focuses only on one type of executive compensation; future research could usefully investigate the effects of other CEO incentives on CPD. In addition, our study focuses on the level of disclosure rather than its quality, reflecting the relatively recent emergence of political disclosure as a corporate practice. A further limitation is that our sample consists only of S&P 500 firms, making us cautious in generalizing our results across all firms. Therefore, we suggest broader investigation of the driving factors that enhance CPD.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A:. CPD measure

CPD Index- Disclosure		Max Score
1	Does the company publicly disclose corporate contributions to political candidates, parties and committees, including recipient names and amounts given?	4
2	Does the company publicly disclose payments to 527 groups, such as governors' associations and super PACs, including recipient names and amounts given?	4
3	Does the company publicly disclose independent political expenditures made in direct support of or opposition to a campaign, including recipient names and amounts given?	4
4	Does the company publicly disclose payments to trade associations that the recipient organization may use for political purposes?	6
5	Does the company publicly disclose payments to other tax-exempt organizations, such as 501(c)(4)s, that the recipient may use for political purposes?	6
6	Does the company publicly disclose a list of the amounts and recipients of payments made by trade associations or other tax-exempt organizations of which the company is either a member or donor?	2
7	Does the company publicly disclose payments made to influence the outcome of ballot measures, including recipient names and amounts given?	4
8	Does the company publicly disclose the company's senior managers (by position/title of the individuals involved) who have final authority over the company's political spending decisions?	2
9	Does the company publicly disclose an archive of each political expenditure report, including all direct and indirect contributions, for each year since the company began disclosing the information (or at least for the past five years)?	4
Maximum score		36
CPD Index- Policy		
10	Does the company disclose a detailed policy governing its political expenditures from corporate funds?	6
11	Does the company have a publicly available policy permitting political contributions only through voluntary employee-funded PAC contributions?	2
12	Does the company have a publicly available policy stating that all of its contributions will promote the interests of the company and will be made without regard for the private political preferences of executives?	2
13	Does the company publicly describe the types of entities considered to be proper recipients of the company's political spending?	2
14	Does the company publicly describe its public policy positions that become the basis for its spending decisions with corporate funds?	2
15	Does the company have a public policy requiring senior managers to oversee and have final authority over all the company's political spending?	2
16	Does the company have a publicly available policy that the board of directors regularly oversees the company's corporate political activity?	2
Maximum score		18
CPD Index- Oversight		
17	Does the company have a specified board committee that reviews the company's policy on political expenditures?	2
18	Does the company have a specified board committee that reviews the company's political expenditures made with corporate funds?	2
19	Does the company have a specified board committee that reviews the company's payments to trade associations and other tax-exempt organizations that may be used for political purposes?	2
20	Does the company have a specified board committee that approves political expenditures from corporate funds?	2

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CPD Index- Disclosure		Max Score
21	Does the company have a specified board committee, composed entirely of outside directors, that oversees its political activity?	2
22	Does the company post on its website a detailed report of its political spending with corporate funds semi-annually?	4
23	Does the company make available a dedicated political disclosure web page found through search or accessible within three mouse-clicks from homepage?	2
24	Does the company disclose an internal process for or an affirmative statement on ensuring compliance with its political spending policy?	2
Maximum score		18
Total score		72

- A qualitative response of “Yes” or “Not Applicable” to an indicator is given the maximum score.
- A qualitative response of “Partial” is given half of the maximum score.
- A qualitative response of “No” is given a score of 0.

Appendix B:. CEOs inside debt calculation

$$CEOIN = D_{CEO} / E_{CEO}$$

The value of inside debt is the sum of the present value of defined-benefit pensions (*PENSION_VALUE_TOT*) and total balances of non-qualified deferred compensations (*DEFER_BALANCE_TOT*), both from ExecuComp. The value of inside equity is sum of stock and stock option holdings. The value of stock holding equal to number of shares owned by CEO multiplied by stock price (*SHROW-N_EXCL_OPTS * PRCCF*). For CEOs option holding, we used Black Scholes model to value stock options as described below.

$$\text{Option value} = [Se^{-dt}N(Z) - Xe^{-rt}N(Z - \sigma T^{1/2})]$$

Where,

$$Z = [\ln(S/X) + T(r - d + \sigma^2/2)]/\sigma T^{1/2}$$

N = Cumulative probability function for the normal distribution

S = Price of the underlying stock at a fiscal year-end

X = Exercise price of the stock option

σ = expected stock-return volatility over the life of the option

r = natural logarithm of risk-free interest rate

T = time to maturity of the option in years.

d = Natural logarithm of expected dividend yield over the life of the stock option.

A CEO's options portfolio includes three types of options, there are three types of options. (1) newly granted options in the current year, (2) options granted in the previous year that currently exercisable (vested) options and (3) options granted in the previous year but unexercisable (unvested) options. Firstly, we compute the value for the newly granted options. Secondly, for previously granted options, we used the same inputs, except we need to estimate average exercise price (X) and time to maturity (T). Following (Core and Guay 2002; Cassell et al. 2012; He, 2015), we calculate average exercise price ($PRCC_F - \frac{OPT_UNEX_UNEXER_EST_VAL}{OPT_UNEX_UNEXER_NUM}$) for unvested options and employing same method for vested options. The time to maturity (T) of vested options is assumed to be 4 years less than the average maturity of the new grants. In case no options granted this year, the maturity is set at 6 years. The time to maturity of unvested options is set at 1 less than the average maturity of the new grants. In case no options granted this year, the maturity is set at 9 years. Finally, the value of CEO option holdings is equal to the sum of the value of newly granted CEO options, the value of vested CEO options, and the value of unvested CEO options.

Appendix C:. Variable definitions

Variables	Measurement	Data source
Panel A: Main Outcome Variable		
<i>CPDisc</i>	A firm's level political spending disclosure percentage measured by the sum of the numerical scores for all indicators obtained by CPA- Zicklin PSD Index scaled by the total score of the index 74 (72) in 2012 (2013–2021).	CPA Website
<i>P_Disclosure</i>	A firm's total political spending disclosure score for the disclosure component, measured by the sum of the numerical scores for the disclosure component scaled by the maximum score for such component, which is 36.	CPA Website
<i>P_Policy</i>	A firm's total political spending disclosure score for the policy component, measured by the sum of the numerical scores for the policy component scaled by the maximum score for such component, which is 18.	CPA Website

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Variables	Measurement	Data source
<i>P_Oversight</i>	A firm's total political spending disclosure score for the oversight component, measured by the sum of the numerical scores for the oversight component scaled by the maximum score for such component, which is 18 (20) in 2012 (2013–2021).	CPA Website
Panel B: Compensation Variables		
CEO D/E (CFOD/E)	The natural log of one plus the ratio of (CEO debt / CEO equity), where CEO (CFO) debt equals to the sum of the present value of defined-benefit pensions and total balances of non-qualified deferred compensations divided by the sum of accumulated stocks and accumulated stock options (i.e., stock options is calculated using BS model).	Execucomp & Compustat
CEO-firm D/E	The natural log of one plus the ratio of CEO debt-to-equity to a firm's debt-to-equity; where firm's debt-to-equity ratio is the ratio of total debt scaled by market value of equity.	Execucomp & Compustat
CEO-firm D/E > 1	An indicator variable equal to 1 if the CEO debt-to-equity to a firm's debt-to-equity greater than one, and 0 otherwise.	Execucomp & Compustat
CEO delta (CFO delta)	The natural log of one plus delta. Following Core and Guay (2002) , Delta is the total change in dollar value for CEO wealth for a change of 1 % in the stock price.	Execucomp & Compustat
CEO vega (CFO vega)	The natural log of one plus vega. Following Core and Guay (2002) , Vega is the total change in CEO wealth for a change of 0.01 % in stock price volatility.	Execucomp & Compustat
Panel C: CEO characteristics		
CEO age (CFO age)	Age of CEO as of year t.	Execucomp
CEO tenure (CFO tenure)	The number of years CEO has been in his/her current role.	Execucomp
CEO gender (CFO gender)	An indicator variable equal to 1 if CEOs is female, and 0 otherwise.	Execucomp
CEO duality	An indicator variable equal to 1 if the CEO is also the chair of the board, 0 otherwise.	Boardex
Panel D: Firm Fundamentals		
Lobbying spending	The natural log of Federal lobbying spending during the year.	CRP
PACs Spending	The natural log Federal PAC spending by the firm during the year.	FEC
Org 527 Spending	The natural log Expenditures on 527 political committees during the year.	CRP
State level spending	The natural log of Sum of expenditures by firms on state candidates, political parties, and ballot measure committees during the year.	National Institute on Money in State Politics
Spending intensity	The natural log of the sum of four observable political spending (lobbying spending, PACs spending, 527 Spending and state level spending).	
Analyst	The number of analysts gives recommendations for the firm.	Bloomberg
HHI	The Herfindahl-Hirschman Index (HHI), calculated as the aggregated value of the square of the market share of each firm based on the F&F 48 industry classification. The higher the HHI index indicates a lower competition within the industry.	Compustat
ROA	The net income divided by average total assets.	Compustat
Leverage	The total liabilities divided by total assets.	Compustat
Firm size	The natural log of number of employees.	Compustat
Capex	The capital expenditures divided by lagged total assets.	Compustat
BM	The book value of equity divided by market value of equity.	Compustat
Board size	The number of directors on the board.	Boardex
Board independence	The proportion of independent directors to the total number of directors in a given year.	Boardex
Log (Age)	The natural logarithm of the number of years since the firm first appeared on the Compustat.	Compustat
KZ index	$= -1.002*(OIBDP/AT) - 39.368*(DV/AT) - 1.315*(CHE/AT) + 3.139*leverage + 0.283*Tobin Q$	Compustat
High KZ index	An indicator variable takes the value of 1 if the firm is in the upper quartile of the distribution of the KZ index, and 0 otherwise.	
Financial constrained firms (Fin_Constrain)	An indicator variable which equals 1 if a firm-year has a constraint score of 3 or higher and 0 if the constraint score is 1 or lower. To calculate constraint score, we follow Linck et al. (2013) and construct a "comprehensive financial constraint score" based on six proxies: the SA Index (Hadlock and Pierce, 2010), WW index (Whited and Wu, 2006), net leverage (Kaplan and Zingales, 1997), free cash flow (Hadlock and Pierce, 2010), dividend payout ratio (Almeida et al. 2004), and operating cash flow (Hadlock and Pierce, 2010). The constraint score is calculated as the total number of points assigned to a firm-year based on these five proxies.	Compustat
State corruption	Annual number of corruption convictions from the Department of Justice Public Integrity Section divided by the population in the state and then multiplying by 100,000.	
RepIndexTen	An index is computed as the total donations to the Republican Party minus the total donations to the Democratic Party, divided by the total donations to both parties over the CEO's entire tenure. This index ranges from -1 (indicating a strong Democrat) to 1 (indicating a strong Republican).	FEC website
Election Year	An indicator variable which equals 1 for the Presidential election years, and 0 otherwise.	
President change	An indicator variable which equals 1 during the first two-years of a new President, and 0 otherwise.	
Panel E: Path Analysis Variables		
Distance-to-default (DistToDef)	The market-based credit risk measure which is based on Merton's model (1974) provided by Bloomberg.	Bloomberg
Information asymmetry (Illiquidity)	The mean of the Amihud (2002) illiquidity measure (i.e., daily absolute stock return divided by US\$ trading volume). For expositional purposes, we multiply the price impact metric by 1,000,000.	CRSP
Idiosyncratic risk (IdioRisk)	The natural logarithm of the variance of daily idiosyncratic residual returns in fiscal year t + 1. Residual risk returns are calculated as the difference between expected and realized returns. Expected returns are calculated in fiscal year t + 1 based on the parameters of the market model	CRSP

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(continued)

Variables	Measurement	Data source
	which are estimated using daily firm return data 36 months prior to the beginning of fiscal year $t + 1$.	
Reputation (<i>MAScore</i>)	The company's score from the "America's Most Admired Companies" List (MA List) in the year (where a higher score means a better reputation) and set to zero for companies not on the MA List in the year.	<i>Fortune's Magazine's</i>
Interest rate yield (<i>InterestRate</i>)	The natural log of the all-in-drawn interest spread on the bank loan.	<i>Deal Scan</i>
Financial covenants (<i>FinancialCov</i>)	The natural log of the number of financial covenants included in a loan.	<i>Deal Scan</i>
Panel F: Endogeneity Variables		
Wage Tax Rate	The maximum state income tax rates (<i>STAX</i>) are calculated using TAXISM model (https://users.nber.org/~taxsim/state-rates/).	
Marginal Tax Rate	An indicator variable equal to one if the firm has operating loss carry-forwards in any of the previous three years, and zero otherwise.	
Mortgage Subsidy	The maximum mortgage subsidy rate in the state where the firm is headquartered are calculated using TAXISM model (https://users.nber.org/~taxsim/state-rates/).	
S&P500_dummy	An indicator variable which equals 1 if the firm is one of S&P 500 firms, and zero otherwise.	CRSP
InvMillsRatio	The Inverse Mills ratio that is estimated in the first step of Heckman two-stage regression.	
YrShareTurnover	The dollar value traded over the past year divided by average market capitalization (number of shares outstanding multiplied by share price) over the past year. Averages for both measures are taken over monthly values over the previous 12 months.	CRSP
LogMinTradVolume	The natural log of minimum of monthly trading volume over the last 6 months.	CRSP
LogMarketCap	The number of shares outstanding multiplied by share price.	CRSP
IPODate	An indicator variable equal to 1 if the first date on which the security appeared in CRSP was at least one year (365 days) ago.	CRSP
EligibleExc	An indicator variable equal to 1 if the exchange code for the security, as defined by CRSP, is none of the following: Halted by Primary Listing Exchange, Suspended by Primary Listing Exchange, Not Trading on Primary Listing Exchange, Bats (As Quoted By NASDAQ), Boston Stock Exchange, Chicago Stock Exchange, Pacific Stock Exchange, Philadelphia Stock Exchange, Toronto Stock Exchange, and Over-The-Counter (Non-NASDAQ Dealer Quotations).	CRSP
EligibleShare	An indicator equal to 1 if the share class for the security, as defined by CRSP, is equal to either "Ordinary Common Shares – Securities which need not be further defined" or "Ordinary Common Shares – REIT's (Real Estate Investment Trusts)", and 0 otherwise.	CRSP
PastQrEarnings	The net income excluding discontinued operations (per the S&P 500 index guidelines), scaled by total assets, measured in the most recent quarter.	CRSP
PastQrEarningsDum	An indicator equal to one if past quarter earnings are positive, and 0 otherwise.	CRSP
PastYrEarnings	The net income excluding discontinued operations (per the S&P 500 index guidelines), scaled by total assets, measured in the previous year.	CRSP
PastYrEarningsDum	An indicator equal to 1 if past year earnings are positive, and 0 otherwise.	CRSP

Table A1

Proof of convergence for entropy balancing.

This table presents the proof of convergence of mean for the association between CEO inside debt and CPD with an entropy balanced sample. Panel A (Panel B) shows the mean, variance, and skewness of control variables for the treatment and control groups before (after) balancing. We achieve convergence in mean (same mean on both sides).

Panel A: Before entropy balancing						
Variables	Treatment Group			Control group		
	Mean	Variance	Skewness	Mean	Variance	Skewness
CEO delta	6.060	1.683	−0.377	6.760	2.633	0.235
CEO vega	3.382	10.110	−0.047	3.551	10.020	−0.133
CEO age	57.980	24.020	0.106	57.540	48.210	0.457
CEO tenure	5.996	26.900	1.593	7.458	58.460	1.966
CEO gender	0.049	0.046	4.199	0.052	0.050	4.014
Spending Intensity	12	26.340	−1.672	10.150	36	−0.966
Analyst	21.980	49.070	0.404	23.460	77.790	0.565
HHI	0.208	0.034	2.484	0.197	0.027	2.963
ROA	0.053	0.004	−0.003	0.075	0.006	0.233
Leverage	0.685	0.031	0.013	0.625	0.048	0.179
Firm Size	3.258	1.790	−0.258	3.017	2.033	−0.176
Capex	0.038	0.001	1.490	0.034	0.001	1.866
BM	0.436	0.145	4.313	0.323	0.089	1.615
Panel B: After entropy balancing						
Variables	Treatment Group			Control Group		
	Mean	Variance	Skewness	Mean	Variance	Skewness
CEO delta	6.060	1.683	−0.377	6.060	2.501	0.071
CEO vega	3.382	10.110	−0.047	3.382	9.603	−0.068

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Table A1 (continued)

Panel B: After entropy balancing						
Variables	Treatment Group Mean	Variance	Skewness	Control Group Mean	Variance	Skewness
CEO age	57.980	24.020	0.106	57.980	48.930	0.895
CEO tenure	5.996	26.900	1.593	5.996	53.960	2.804
CEO gender	0.049	0.046	4.199	0.049	0.046	4.199
Spending Intensity	12	26.340	−1.672	12	20.860	−1.923
Analyst	21.980	49.070	0.404	21.980	60.660	0.453
HHI	0.208	0.034	2.484	0.208	0.034	2.686
ROA	0.053	0.004	−0.003	0.053	0.005	0.043
Leverage	0.685	0.031	0.013	0.685	0.043	0.011
Firm Size	3.258	1.790	−0.258	3.257	1.922	−0.287
Capex	0.038	0.001	1.490	0.038	0.002	1.663
BM	0.436	0.145	4.313	0.436	0.167	1.537

Data availability

The authors do not have permission to share data.

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