

Board Co-Option and Corporate Social Responsibility

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Abstract: *This paper investigates the impact of board co-optation on corporate social responsibility (CSR). It shows that board co-optation carries a negative relationship with CSR based on a sample of 14,359 U.S. public companies. In line with the stakeholder theory, businesses with more co-opted directors are less inclined to protect the interests of their stakeholders, which results in firms engaging in less CSR. The paper also discovers reliable results using a propensity score matching approach and a high-dimensional fixed effect model.*

Keywords: *corporate social responsibility, board co-optation, corporate governance*

1. Introduction

Boards have played a key role in controlling business executives and taking part in corporate decision-making. Therefore, examining board characteristics can be one of the ways to measure the performance of corporate governance, especially with co-opted directors. Co-opted directors are members who get elected afterwards CEOs take office, according to Coles et al. (2014). CEOs participate in selecting new members to boards and these co-opted directors have a stronger inclined to support them. Given this, an increasing number of studies have investigated how co-opted boards affect company operations, focusing on reduced monitoring and poor internal corporate governance caused by a substantial number of co-opted directors. On the one hand, firms recruiting more co-opted directors have a higher likelihood of experiencing reduced sensitivity to firm performance, overinvestment (Coles, 2014), exposure to higher default risk (Xu et al., 2020), suffering increased exposure to misconduct (Baghdadi et al., 2020) and increasing stock market crashes (Zaman et al., 2021), etc.

On the other hand, the capture of co-opted directors by CEOs may help CEOs get more investment opportunities in new projects, making firms more innovative (Nguyen et al., 2021). Furthermore, having them may also lead to an increased ability of firms to recapitalize (Lartey et al., 2021) and focus more on LGBT persons (Kyaw et al., 2021). However, the research into corporate social responsibility (CSR) is sparse.

Extensive literature has studied the determinants of CSR. First, firms' market characteristics greatly affect CSR (Cai et al., 2016; Borghesi et al., 2014). Second, plenty of literature research regarding how corporate governance affects CSR. On the one hand, studies usually use institutional investor ownership as external corporate governance to analyse its effect on CSR (Jiraporn & Lee, 2018). On the other hand, internal corporate governance is usually measured by CEO and board characteristics to measure whether it affects CSR (Baghdadi et al., 2020). However, the research question about how board co-optation, as internal corporate governance, affects CSR is unanswered. Along these lines, this paper is motivated to explore whether and the way co-opted directors impact CSR investment.

The first prediction is that an increase in co-opted directors corresponds to negative growth in CSR engagement. Stakeholder theory lends weight to this prediction, which argues that poorer internal corporate governance decreases CSR activities (Coles et al., 2014; Liang & Renneboog, 2017; Chen et al., 2020). Specifically, if boards of directors have poor monitoring capabilities, then firms may not give back to society, so they cannot effectively deal with conflicts between stakeholders. However, when co-opted directors become the majority of the board, it makes the internal governance of firms less effective. They always obey CEOs, so that CEOs' decisions tend to be unanimously endorsed. Due to inadequate oversight brought on by a rise in co-opted directors, CSR efforts are decreased.

However, a competing prediction shows that board co-options may facilitate CSR engagement. Agency theory suggests that shareholders and managers have competing interests. If managers' investment in CSR enhances their reputation as good social residents and thus achieves personal benefits,

they are prone to over-invest without regard to the interests of shareholders (Barnea & Rubin, 2010; Jo & Harjoto, 2012). Therefore, by enhancing internal and external oversight via a variety of regulatory measures, businesses can lessen the incentives and possibilities for insiders to overinvest in CSR. Nevertheless, insufficient monitoring of CEOs by co-opted directors contributes to CEOs' over-involvement in CSR activities. Co-opted directors' deference to CEO decisions means that CEOs have more influence and tend to be overconfident. Hence, CEOs frequently invest excessively in CSR to enhance their image. Overall, the weakening of monitoring effectiveness by co-opted boards may contribute to CEOs' CSR investment behaviour.

Regarding the empirical results of this study, statistics about board co-option are supplied by Coles et al. (2014). The Morgan Stanley Capital International (MSCI) database serves to gather CSR statistics. The empirical findings in this research support the first assumption that board co-option is negatively related to CSR utilizing U.S.-listed companies with 14,359 firm-year observations from 1996 to 2019. More specifically, this paper shows that one unit increase in co-opted director measure decreases the CSR score by 0.1148. This baseline regression result is robust when using different endogeneity tests and alternative measures of board co-option. First, this study introduces the high-dimensional fixed effect models to capture the time-varying differences across industries. Second, considering possible differences in firm-level characteristics, this study uses a propensity score matching (PSM) approach. Third, this paper re-runs the baseline regressions using weighted tenure of board co-options to analyse the effect of changes in co-opted director tenure on the regression results. All these tests show consistent results with the baseline findings that board co-option has a negative association with CSR engagement.

Further, this paper conducts two cross-sectional analyses. First, the findings indicate that when corporate governance is poor, board co-option seriously harms CSR. Second, the negative correlation is also more significant when firms impose financial constraints. This paper also adopts an additional analysis to figure out the way social and exchange capital affect CSR and that social capital is the major explanation for co-opted directors' decreased CSR participation.

The study first strengthens the wealth of knowledge on the financial effects of board co-options on businesses (Coles et al., 2014; McGuinness et al., 2017). This paper resembles Xu et al., 2020's (2022) study on board co-option and the danger of default, which indicates a rise in co-opted directors makes a higher probability of corporate default. This study differs from them by exploring the impact of director co-optation on CSR.

The study advances the field of inquiry into the factors that influence CSR (Borghesi et al., 2014; Cai et al., 2016). Dyck et al. (2020) adopt gender diversity on boards as internal corporate governance to measure the impact on CSR. We extend this research line by using an endogenous variable, board co-option, to proxy the poor internal governance and show that board co-option can influence CSR activities through the channel of corporate governance.

The paper exposes the importance of corporate governance, especially internal corporate governance. If the internal corporate governance system is insufficient, it may hurt stakeholder benefits. Therefore, this paper appeals to companies to strengthen the effectiveness of their internal regulation, which will be a reference for scholars, the public, the government, and policymakers.

The paper's continuation is set up as follows. The research along with theoretical foundations are addressed in Section 2. The paper reviews the previous studies and opinions in terms of co-opted boards, corporate governance, and CSR. Section 3 proposes two opposing hypotheses, respectively, that co-opted directors may be positively or negatively related to CSR. The data sample and the development of the study approach are discussed in Section 4. The research study is carried out in Section 5, along with a results analysis, a cross-sectional analysis, and an endogeneity test. The research's findings and limitations are covered in Section 6.

2. Literature Review

2.1. Board Co-Option

2.1.1. Characteristics of Board Co-Option

The board of directors is a crucial organization that affects corporate monitoring and is directly linked with corporate performance (Forbes & Milliken, 1999). Boards' behaviour is frequently shaped by directors' attitudes, who influence the company's operations by providing opinions on corporate decisions based on their professional knowledge and experience. As agents, directors are also obligated to help

shareholders gain more benefits. They are required to monitor management, which means that they have the responsibility to prevent CEOs from engaging in inappropriate behaviour (Fama & Jensen, 1983). Therefore, numerous research studies have investigated how board characteristics affect corporate governance performance. Several past studies argue that independent directors are an important basis for judging the effectiveness of board supervision^[1] (Adams & Ferreira, 2007; Morck, 2008). However, there is also a lot of literature that questions the monitoring ability of independent directors. For example, Adams et al. (2010) claim that independent directors do not mean that they are free under managerial oversight^[2]. Because of this, some independent directors may be co-opted by CEOs and neglect their independence, choosing to compromise when they disagree.

With the recent research on the characteristics of directors, co-opted directors are found to be a new perspective in the study of corporate governance. Board co-option is first proposed by Coles et al. (2014). When CEOs appoint members to their boards after taking office, this is known as board co-option. They find that the increase in co-opted directors makes corporate governance less effective and less focused on the protection of stakeholders' interests. CEOs intervene in board elections and these board directors are likely to be loyal to CEOs after they have been appointed. Co-opted directors offer many favours to CEOs and gratitude to them. For example, CEOs have higher salaries and are less affected by company performance. These CEOs are also more likely to overinvest, which is contrary to the duty to protect stakeholders.

2.1.2. Board Co-Option and Corporate Governance

Extensive literature has examined how co-opted directors affect corporate activities with an emphasis on corporate governance. The detrimental effects of co-opted boards on business activities through a channel of decreased oversight and bad corporate governance are extensively discussed in extensive literature. First, for instance, co-opted directors may lead to overinvestment. The quantity of co-opted directors correlates strongly with enterprises' investment activity, according to Coles et al. (2014). Co-opted directors defer to the CEOs' judgment, making the CEO's behaviour lack supervision, so CEOs may be more ambitious. They show a quest for higher rights, larger investments, and a better social reputation to achieve higher returns. Tang et al. (2015) agree with this view and further suggest that the reason for overinvestment in companies is that co-opted directors' loyalty to CEOs makes them more likely to be overconfident. This gives CEOs a false belief in their ability to benefit from the investment. Even though overinvestment brings a higher risk of loss, co-opted directors can cover up abuses against stakeholders. Jiraporn and Lee (2018) explain further in terms of dividend payments. They discover that if reducing observing efficacy, the higher the cash holdings of management. Management will retain funds that should be used for shareholder dividends to expand investments, leading to a higher risk of overinvestment.

Second, companies containing an abundance of co-opted directors may be more susceptible to default. Xu et al. (2020) find that CEOs in these firms are less willing to follow advice when making decisions. The higher loyalty of co-opted directors expands the power of CEOs, making them often too arbitrary and risk-loving. To obtain high returns, CEOs tend to let companies invest in risky projects, which makes a higher probability of company defaults. This outcome resembles that which Lim et al. (2020) reported. They observe that lenders place extra restrictions on corporations with a considerable amount of co-opted directors because such firms are more inclined to default on their loans. Specifically, weaker monitoring of co-opted boards leads to an increase in firms' ethical risk, which makes lenders tend to be more cautious in contracting with firms. They add stricter restraints to reduce the probability of firm defaults occurring or to reduce the losses caused by defaults. In addition, co-opted boards may also induce more corporate misconduct.

Further, Baghdadi et al., (2020) provide evidence that co-opted directors increase corporate misconduct, causing firms to suffer reputational damage and pay large fines. They state that corporate regulatory effectiveness becomes weak because co-opted directors and CEOs maintain a close relationship. Co-opted directors tend to be less active in attending board meetings and less likely to make effective recommendations on company decisions. Nevertheless, co-opted directors also receive higher salaries than other directors. As a result, co-opted directors tend to become indifferent to stakeholders, which reduces the cost to CEOs to hurt businesses and stakeholders, increasing the probability of company misconduct.

Moreover, the amount of co-opted directors on a company's board raises the danger of a stock fall (Zaman et al., 2021). The study claims that co-opted directors form an alliance with management, undermining firms' monitoring systems and providing opportunities for CEOs to hide bad news. On the one hand, CEOs' overconfidence allows them to be overly optimistic about investment returns, retaining

too many low-profitability projects and leaving a hidden danger for stock crashes. On the other hand, when CEOs engage in fraudulent behaviour, their actions are less likely to be noticed because of poor monitoring. However, if too much bad news is hoarded and unresolved, it will be exposed at some tipping point, sending a huge shock to firms' stocks. Kao et al. (2020) build on this finding and show that director gender affects the relevance of co-opted directors to stock crash risk. They point out that male managers tend to be more overconfident than female managers. Male managers are more prone than female managers to take risks while making financial decisions. Therefore, with co-opted directors not being effective monitors, male CEOs tend to be more likely to suffer losses on their investment projects, raising stock volatility. In contrast, the cautious investment behaviour of female CEOs is less likely to cause stock crashes.

However, considerable studies also provide conflicting evidence that co-opted boards can positively influence corporate behaviour due to the weak monitoring of CEOs. Firstly, co-opted directors may incentivise firms' innovative behaviour (Nguyen et al., 2021). From the perspective of co-opted directors, since innovation projects tend to be high-return projects, co-opted directors often choose to encourage CEOs to contract for innovations to receive higher compensation from them. One advantage for CEOs is that their salary is not tied to their performance because of directors' loyalty, which frees them to invest in innovative ventures without feeling pressured.

Another advantage is that co-opted directors' support for innovative projects further increases their loyalty to CEOs and reduces CEOs' risk of dismissal. Second, co-opted boards can enhance the success of corporate capital structure choices (Lartey et al., 2021). The weak monitoring capacity of co-opted directors gives CEOs more opportunities to set capital structure policies for personal rather than shareholder interests, such as increasing leverage and taking on a higher proportion of debt. Consequently, firms with high proportions of co-opted directors intensify agency conflicts, which makes CEOs need to regulate leverage more quickly to maximize their own objectives and increase the efficiency of companies' capital structure adjustment.

Finally, co-opting directors may encourage companies to choose LGBT-supportive policies. Kyaw et al. (2021) find that LGBT-friendly companies imply that they are more attentive to the stakeholders of this group. A company's protection of LGBT stakeholders' rights is beneficial for building a good corporate image and attracting the attention of investors to obtain a higher valuation in the market. Thus, if boards of directors do not have enough power to discipline CEOs, CEOs can pursue LGBT-supportive policies to enhance their reputations and expand their personal wealth based on company stock and performance earnings.

2.2. Corporate Social Responsibility

2.2.1. Theoretical Background

The study of CSR needs to be supported by stakeholder theory. Stakeholder theory overthrows the mindset of shareholder supremacy and argues that stakeholders are closely related to corporate operations, so the needs of stakeholders must be considered by businesses. A company's operations not only require financial support from shareholders, but are also governed by stakeholders such as employees, consumers, suppliers, communities, and creditors. They share the risks associated with the company's actions and decisions, so the company needs to raise their ethical standards, accept their scrutiny, and safeguard their interests^[3] (Freeman, 1984). Responsible firms are more likely to gain a good reputation (Bénabou & Tirole, 2010), attract talent (Greening & Turban, 2000), reduce investment costs, and improve firm performance (Iliev & Roth, 2023).

In addition, research on CSR needs to consider agency issues arising from the separation of management and ownership. Agency theory suggests that the corporate owner retains ownership and transfers the management rights to agents, i.e., corporate managers (Jensen & Meckling, 1976). This relationship allows corporate owners, who lack knowledge and energy, to leave company operations to professional agents, to increase production efficiency. However, firm proprietors and managers have a conflict of advantage. Firm owners seek to maximise wealth, while agents derive their income from salaries. Fama and Jensen (1983) note that if firms lack a sound regulatory system, shareholders will lose control over the agents' behaviour^[4]. Therefore, an effective corporate oversight system can relieve agency problems. However, information asymmetry makes it impossible to eliminate the ownership and control imbalance problem. Shareholders cannot know all the knowledge and information held by managers. The weaker the regulation of the company, the less transparent the examination of managers' behaviour and efficiency, so shareholders are unable to fully monitor managers' behaviour and impose rewards and penalties.

2.2.2. Empirical Evidence on Corporate Governance and CSR

An extensive corpus of research has investigated the interaction connecting CSR and company oversight. Internal corporate governance is built on the board of directors as well as CEOs, hence it is common to utilize their traits as an observational objective to comprehend how internal corporate governance and CSR are related (Gillan et al., 2021). Numerous academic studies centred on the association connecting CSR and business regulation. For instance, according to Jiraporn and Lee (2018), corporations having an excessive percentage of female directors typically exhibit greater levels of CSR. Female directors are more sensitive to risk than males because they are not as confident as male directors and fear that investment decisions will bring losses to the company, which will affect their careers. Consequently, female directors tend to exercise stronger discipline over company activities and take less risk, including reducing leverage and forgiving investments in risky projects. These governance behaviours reduce the chances of corporate insolvency and allow the rights of shareholders and other stakeholders to be secured. Dyck et al. (2020) further find that female directors elected to boards of directors lead companies to be more active in CSR activities, especially environmental aspects^[5]. From a director's perspective, in a mostly male-dominated board, female directors tend to be less integrated into the male social circle and show a higher degree of independence than male directors. At the level of an investor, there is an increasing focus on the benefits of CSR, which leads them to elect directors who are more sensitive to investor preferences. Female directors are more likely to meet these needs. As female directors are less misled by corporate management, they are more likely to monitor behaviours that protect investors' interests, thus promoting corporate compliance with CSR.

Additionally, the research demonstrates that female directors are held to greater ethical standards than male executives, and they tend to have stronger corporate governance to avoid defaults and fraudulent behaviour, which further improves CSR ratings. In addition, Iliev and Roth (2023) conducted a study on US directors and found that if a director of a US company works for a foreign company and the foreign company has knowledge of sustainable development, then the US company will have a better performance on CSR. American directors need to stick to the foreign company's sustainability policy, which is the main motivator. Under the influence of the policy, the U.S. board of directors brings knowledge into the home company. This knowledge flow helps the U.S. firm to improve its corporate governance system and thus improve CSR engagement.

Finally, CEO compensation also mirrors the promotion of CSR by firm governance. Gillan et al. (2010) find that CEO wages are often lower in companies with a high level of CSR. CEOs will collect more rewards through CSR activities rather than satisfying shareholders if corporate governance. In contrast, if boards of directors limit the compensation of CEOs, it represents that the firm has good governance.

Therefore, firms with good corporate governance performance tend not to increase the CEO's salary when they engage in CSR. Jian and Lee (2015) agree with this view. They claim that directors with high CSR scores also have stricter control over CEO compensation. These companies demonstrate well-developed internal governance. For example, CEO pay is controlled within reasonable limits, and CEOs face fines once the board of directors finds that the pay is out of bounds. The report by Ferrell et al. (2016) also has many similarities with the previous literature, and they find that excellent internal governance capacity is reflected in the control of CEO overpay, with the lower the overpay, the better the CSR performance. Specifically, practising strict CEO salary management helps to reduce agency problems. Directors put pressure on CEOs, making them less likely to derive extra pay from CSR activities but rather actively participate in corporate operations and seek to maximise shareholder and stakeholder wealth.

However, there is no uniform answer to the conclusions on internal governance and CSR. Other literature holds conflicting opinions with the previous section, arguing that high levels of CSR may have weaknesses in corporate governance capabilities. CEOs who are not purely politically oriented are likely to be more involved in CSR investments, according to Borghesi et al. (2014). These CEOs may not be motivated by political beliefs, but rather by a personal interest in befriending both Republicans and Democrats to gain support from both parties. Thus, these CEOs do not put the interests of shareholders and stakeholders in the first place but will enhance their reputations by actively participating in CSR activities to attract partisan attention for better career development, which undermines corporate governance's efficiency.

Moreover, the damage to corporate governance by CEOs' overconfidence may also make companies participate in more CSR initiatives. CEOs' overconfidence brings poor corporate governance, but CSR performance is at a higher level (McCarthy et al., 2017). CEOs' overconfidence in their investment

decisions can lead them to be less likely to hedge, meaning that the risk of company losses rises, generating negative impacts such as corporate financial volatility and damage to shareholders' wealth. This study argues that CSR can relieve firm risk and offset negative news. Consequently, CEOs will engage in CSR more frequently to increase investors' favourability and tolerance of company mistakes, thus reducing penalties. The problem with this situation is that although the company is performing well in CSR, there are still problems with internal governance. In addition to the above discussion, research on corporate external governance and CSR has also attracted much attention. As institutional investors account for major shareholdings, they tend to engage in external governance of firms to address the risk of firm externalities in advance and to expand their wealth ^[6] (Dimson et al., 2015). With society's increasing focus on CSR, institutional investors may adjust their corporate governance decisions to require firms to expand their CSR investments. For example, Gillan et al. (2010) find that Institutional shareholders with a conscience are more inclined to engage in corporate oversight activities that promote the transformation of firms into socially responsible companies ^[7]. Unlike the profit-oriented strategy of ordinary institutional investors, socially responsible investors are more sensitive to CSR and tend to overestimate companies' responsible projects, so these institutional investors are likely to hold more shares. Therefore, they tend to have more control than other investors and are more active in corporate governance. Companies become more responsible for fulfilling the expectations and preferences of these institutional investors. Similarly, Dimson et al. (2015) also find that these managers positively impact CSR. Institutional investors implement CSR practices in their companies, such as producing environmentally friendly products and improving employee welfare, which leads to an increase in customer and employee satisfaction and loyalty.

The CSR governance behaviour of institutional investors also attracts investors with socially responsible preferences to hold shares. Thus, the governance action shows the company's management a sustainable business mindset. It helps to avoid managers being influenced by short-term interests to make behaviours that harm stakeholders. It also implies that good external governance tends to exhibit high levels of CSR. Dyck et al. (2019) further indicate that increased institutional investor ownership is linked to greater levels of corporate CSR, especially significant in environments where CSR is valued. For institutional investors, the returns from accessing more capital and facilitating capital flows appear to be higher than investments in CSR. However, CER investments help institutional investors build good social relations and thus reduce borrowing costs. In countries that support CSR, responsible behaviour by institutional investors is aligned with local social norms, which can further improve company performance and investment returns. Therefore, institutional investors tend to promote CSR scores in their corporate governance processes to improve social returns.

3. Hypothesis

According to stakeholder theory, increased CSR engagement implies the optimization of corporate governance mechanisms. According to previous research, outstanding oversight denotes a company's dedication to defending the interests of its shareholders. The assets of companies are owned by shareholders, which means that they have controlling power, so it seems that corporate governance needs to focus solely on maximising shareholders' equity. However, companies should not just for the benefit of shareholders but also to reflect the desires of stakeholders. Jensen (2002) states that if considered from the perspective of the stakeholders, governance mechanisms for companies may be understood as a means for resolving stakeholder conflicts. CSR develops corporate governance and allows companies to defend the interests of both operators and non-investment stakeholders. This view is consistent with the research of Donaldson and Preston (1995), who find that CSR behaviour improves companies' oversight frameworks and business performance growth, effectively diminishing shareholder-stakeholder conflict ^[8].

However, the weight of co-opted boards may be negatively associated with corporate oversight. There are a number of studies showing that co-opted directors reduce corporate governance effectiveness (Borghesi et al., 2014; Cai et al., 2016). First, co-opted directors elected by the CEOs choose to favour the CEOs because co-opted directors are more loyal to them. Since co-opted directors take office with the help of managers, they tend not to be opposed to managers' decisions but tend to support the CEOs' behaviour. When confronted with CEOs' misbehaviour, co-opted boards may choose to ignore it, which reduces the level of supervision over management (Kuang & Lee, 2017). CEOs may also pressure co-opted boards to ask co-opted directors to cover up management mistakes when they engage in behaviours that are detrimental to firms' interests (Tang et al., 2015).

Second, co-opted boards are also weak on regulation in the sense that they condone the CEOs' pursuit

of personal interests. Cai et al. (2016) claim that co-opted directors' number is negatively correlated with CEOs' dismissal probability, implying that co-opted boards prevent CEOs' departure risk. Morse et al. (2011) conclude that the protection of managers' personal interests by co-opted boards is also reflected in compensation, which is equivalent proof. Companies that have a high level of co-option also reward their CEOs with higher stock returns and compensation benefits to their CEOs. With the co-opted boards' effect, corporate regulation becomes weaker, allowing more earnings to flow to management. Third, management's pursuit of short-term goals is also a symptom of inadequate regulation of co-opted boards. For example, incidents of corporate corruption are often associated with co-opted directors and CEOs (Jiraporn & Lee, 2018). The phenomenon of CEOs accepting bribes to obtain short-term benefits is mostly caused by the weaker supervisory sensitivity of co-opted directors.

According to the theories and discussions presented above, this dissertation argues that a rise in the extent of co-opted directors may weaken corporate monitoring, which in turn reduces CSR engagement. This argument is supported by some evidence from the stakeholder's perspective. For example, stakeholders such as creditors and institutional analysts tend to disfavour firms with more co-opted directors, including by entering stricter contracts and making more cautious choices (Lim et al., 2020). This indicates that the following of the CEOs by co-opted directors raises questions about the company's ability to regulate and increases stakeholders' concerns about the protection of their interests. Furthermore, the increased risk of stakeholders' interests being damaged means that the company's CSR activities cannot be secured. Therefore, the following is the first hypothesis of the paper:

Hypothesis 1: Co-opted directors are negatively related to CSR engagement.

According to agency theory, firms are likely to generate agent-principal problems, and their lack of regulation may induce managers to overinvest in CSR activities. Specifically, when there is a lack of control over CEOs' behaviour, they may be interested in over-investing in CSR activities. *Borghesi et al.*, (2014) consider CSR activities as one of the forms of manager-shareholder agency relationships^[9]. If managers fail to balance CSR investment and shareholder profit maximisation, which means that CSR investment does not generate equivalent returns for shareholders, then it leads to a waste of funds and loss of value. Jo and Harjoto (2012) further add that when CEOs realise that investing in CSR activities brings them reputational and personal financial benefits, while shareholders are not sufficiently constrained, they will invest more funds in the field while ignoring the shareholders. These CSR projects help managers build a good image in society, improving their reputation and competitiveness. CEOs with good reputations have stronger bargaining power and are thus more likely to have better job opportunities and higher salary levels. As a result, if companies lack regulation of managers, there is a higher probability that managers will overinvest in CSR activities. This result is similar to that reported by Malmendier and Tate (2005), who demonstrate that when there is no tight regulation, CEOs are more exposed to being overconfident. They have a more positive attitude towards CSR investments, which is not in the interest of shareholders.

Under conditions where co-opted boards and corporate regulation levels have negative correlations, lower regulatory capacity tends to indicate higher CSR scores. Corporate governance can be seen as a bridge between co-opted directors and CSR. An increase in co-opted directors weakens corporate regulation, leading to greater CSR engagement. In terms of the overinvestment hypothesis of agency theory, CSR activities are an agency relationship between shareholders and CEOs. Managers, as agents, are tempted to make excessive investments in CSR activities for private gain if they are protected by co-opted directors, in line with Jo and Harjoto's (2012) study. Therefore, the following is a competing hypothesis:

Hypothesis 2: There is a positive relationship between board co-option and CSR engagement.

4. Data and Methodology

4.1. Data Sources and Sample Selection

The data period of this dissertation is from 1996 to 2019. The sample starts with 1996 because the co-opted board data comes from the sample provided by Coles et al. (2014) from 1996-2018^[10]. The sample ends with 2019 as the measure of CSR is constructed by Morgan Stanley Capital International (MSCI) database, which is updated to 2019. This dissertation uses financial data and board information as control variables. Financial data is from Compustat database and board information is from BoardEx database. The dataset excludes financial firms (SIC: 6000-6999) and utility firms (SIC: 4900-4999). The final dataset consists of 14,359 firm-year observations from 1996 to 2019.

4.2. Key Variable Definitions

4.2.1. Corporate Social Responsibility

Following Jo and Harjoto (2012), this paper uses the MSCI database to define CSR. MSCI's database uses the inclusive society rating criteria to categorise CSR into seven main sections: community, diversity, employees, environment, human rights, products, and corporate governance. In addition, MSCI collected six records on alcohol, gambling, guns, military, energy, and smoking, considering their possible impact on CSR ratings. The CSR score can be computed by subtracting the concerns score in each of the seven dimensions from the CSR strengths score. CSR strengths indicate the number of responsible behaviours a company has performed in a dimension, and CSR concerns mean the amount of bad news a company generates.

Following the methodology of Albuquerque et al. (2019), this paper measures CSR using data from six dimensions other than corporate governance. Corporate governance is excluded because a number of literature have demonstrated that there is an association between corporate governance and co-opted directors (Coles et al., 2014; Jiraporn & Lee, 2018), so it does not make much sense to include corporate governance scores in the total CSR score. Furthermore, this paper also excludes the last six parts, which do not consider testing whether and how co-opted directors affect tobacco, alcohol, guns, etc.), one reason is that this paper examines firm-level studies, whereas they tend to be industry-specific. Another reason is that the MSCI database does not collect strength scores for these categories. Therefore, this paper measures CSR by calculating the difference between the strengths and weaknesses of its six components: community, variety, employees, environment, civil rights, and product.

4.2.2. Board Co-Option

Consistent with Coles et al. (2022), the paper defines the board co-option by two criteria. The measures are as follows:

$$CoOp = \frac{CoOp\ directors}{Board\ size}$$

(1) Board co-option is measured by *CoOp*, which represents the percentage of co-opted directors on boards.

Where *CoOp* directors represent the amount of co-opted directors and Board size means the sum of the number of all directors on a board. *CoOp* ranges from 0 to 1, higher *CoOp* represents a higher proportion of co-opted directors

$$TWCoOp = \frac{\sum_{i=1}^{Board\ size} tenure \times CoOp\ directors\ dummy_i}{\sum_{i=1}^{Board\ size} tenure}$$

(2) *TWCoOp* refers to term-weighted co-option. The loyalty of co-opted directors is likely to increase as their CEO's tenure increases, and it is also necessary to consider the possibility that co-opted directors become more influential as their tenure increases, meaning that they may influence more directors to be loyal to their CEO. Thus, it is necessary to consider changes in co-option over time. Specifically, if a director is a co-opted director, *CoOp* director's dummy is 1 and vice versa 0. *tenure* represents the duration that a director has been in employment. Larger *tenure* means that the more significant the co-option of directors is, the more they are likely to defer to CEOs' decision-making, and the more relevant to corporate government. *TWCoOp* also ranges from 0 to 1, with its closer to 1 implying that a director's degree of co-option is higher, and vice versa represents a lower degree.

4.2.3. Control Variables

Following Borghesi et al. (2014) and McCarthy et al. (2017), controls include a vector of firm-level characteristics, such as firm size (*Size*) calculated as the natural logarithm of total assets. Leverage (*Lev*) is the divisor of total liabilities by total assets. Return on assets (*ROA*) is calculated as the firm's net income divided by total assets. The market-to-book ratio (*MTB*) represents the ratio of the market value of assets to their book value. Sales growth (*SaleG*) can be calculated by dividing the difference between the current year and last year's sales by last year's sales, and cash holding (*CashH*) is the ratio of total current assets to total assets. To alleviate the potential effects of extreme values, all the continuous variables are winsorized at 1st and 99th percentiles. The appendix presents greater details on the variable definitions.

4.3. Model Design

$$CSR_{i,t} = \alpha + \beta Board\ Cooption_{i,t-1} + Controls_{i,t-1} + YearFE + IndustryFE + \varepsilon_{i,t}$$

(1) Where CSR is measured by the difference between strengths and concerns in the MSCI database for the different categories of CSR. Board co-option is measured by *CoOp* and *TWCoOp*. Control variables include *size*, *Lev*, *ROA*, *MTB*, Board size, and Board independence. *YearFE* and *IndustryFE* control for the year and industry fixed effects.

5. Empirical Results

5.1. Descriptive Statistics and Correlation

Table 1 presents the descriptive statistics of all the variables used in the baseline regression model. First, regarding the measures of corporate social responsibility, *CSR* ranges from -5 to 8, which has a mean (standard deviation) of 0.239 (2.218). The average value of *CSRStr* for sample firms is 1.312, ranging from 0 to 11. These figures are comparable to the reported values of Albuquerque et al. (2019). Further, the mean value of *SocCap* is 0.292, while the mean value of *ExcCap* is -0.306, which is similar to Zhang et al. (2022). Second, *CoOp* the mean values of *CoOp* and *TWCoOp* are 0.473 and 0.309, and their median values are 0.444 and 0.177. These values are consistent with Cole et. al (2014).

In terms of control variables, *Size* has a mean of 7.770, which is not far from the median of 7.615. Similarly, *CashH* has a mean (median) of 0.446 (0.441). In addition, *Lev* has a range between 0.093 and 0.513, while the mean is 0.510, which is close to the maximum. The minimum values of *ROA* and *SaleG* are both minus, which are -0.285 and -0.403, but the means are 0.057 and 0.087. *MTB* has a minimum and maximum of 0.825 and 8.002, but the median is 1.753. Although this paper has winsorized the sample, the *MTB* is still significantly left-skewed. Overall, these control variables are in line with Borghesi et al. (2014) and McCarthy et al. (2017).

Table 1: Descriptive Statistics

| Variables | Obs. | Mean | SD | Min | 25th | Median | 75th |
|--------------------------|--------|--------|-------|--------|--------|--------|-------|
| CSR Measures | | | | | | | |
| CSR | 14,359 | 0.239 | 2.218 | -5.000 | -1.000 | 0.000 | 1.000 |
| CSRStr | 14,359 | 1.312 | 2.396 | 0.000 | 0.000 | 0.000 | 2.000 |
| SocCap | 14,359 | 0.292 | 1.752 | -3.000 | 0.000 | 0.000 | 1.000 |
| ExcCap | 14,359 | -0.306 | 1.378 | -5.000 | -1.000 | 0.000 | 0.000 |
| Board Co-Option Measures | | | | | | | |
| CoOp | 14,359 | 0.473 | 0.316 | 0.000 | 0.200 | 0.444 | 0.750 |
| TWCoOp | 14,359 | 0.309 | 0.324 | 0.000 | 0.045 | 0.177 | 0.499 |
| Control Variables | | | | | | | |
| Size | 14,359 | 7.770 | 1.485 | 4.945 | 6.658 | 7.615 | 8.710 |
| Lev | 14,359 | 0.510 | 0.207 | 0.093 | 0.369 | 0.513 | 0.641 |
| ROA | 14,359 | 0.057 | 0.079 | -0.285 | 0.026 | 0.060 | 0.097 |
| MTB | 14,359 | 2.157 | 1.289 | 0.825 | 1.329 | 1.753 | 2.513 |

Table 2 shows the correlation matrix among all the key variables used in this paper. The measures of board co-option (*CoOp* and *TWCoOp*) are consistently and negatively associated with the CSR measures (*CSR* and *CSRStr*), suggesting that co-opted directors are negatively related to CSR engagement. For example, the correlation between *CSR* and *CoOp* is -0.0219 with a 1% significance level, indicating the higher the proportion of co-opted directors on boards, the lower the CSR investment. Additionally, this study's control variables have correlations that are less than 0.47, which shows that multicollinearity does not pose a serious issue.

The correlations among all the key variables employed in this study are shown in this table. * indicates the 1% significance level.

Table 2: Correlation Matrix

| | | | | | | |
|------------|----------|----------|----------|----------|----------|----------|
| Variables | (1) | (2) | (3) | (4) | (5) | (6) |
| (1) CSR | 1.0000 | | | | | |
| (2) CSRStr | 0.7382* | 1.0000 | | | | |
| (3) SocCap | 0.8588* | 0.7509* | 1.0000 | | | |
| (4) ExcCap | 0.5527* | 0.1865* | 0.1113* | 1.0000 | | |
| (5) CoOp | -0.0219* | -0.0594* | -0.0395* | 0.0160 | 1.0000 | |
| (6) TWCoOp | -0.0319* | -0.0760* | -0.0558* | 0.0237* | 0.9360* | 1.0000 |
| (7) Size | 0.1913* | 0.3938* | 0.2625* | -0.0794* | -0.0942* | -0.1240* |
| (8) Lev | 0.0205 | 0.0918* | 0.0800* | -0.0784* | -0.1043* | -0.1058* |
| (9) ROA | 0.1012* | 0.0810* | 0.0791* | 0.0657* | -0.0060 | -0.0086 |
| (10) MTB | 0.1126* | 0.0357* | 0.0870* | 0.0534* | 0.0611* | 0.0672* |
| (11) SaleG | -0.0208 | -0.0309* | -0.0476* | 0.0027 | 0.0863* | 0.0903* |
| (12) CashH | 0.0252* | -0.0633* | -0.0161 | 0.0638* | 0.0736* | 0.0847* |
| Variables | (7) | (8) | (9) | (10) | (11) | (12) |
| (7) Size | 1.0000 | | | | | |
| (8) Lev | 0.4196* | 1.0000 | | | | |
| (9) ROA | 0.0227* | -0.1376* | 1.0000 | | | |
| (10) MTB | -0.0943* | -0.1288* | 0.4686* | 1.0000 | | |
| (11) SaleG | -0.0264* | -0.1010* | 0.2147* | 0.2169* | 1.0000 | |
| (12) CashH | -0.3797* | -0.2989* | 0.1152* | 0.2410* | 0.0065 | 1.0000 |

5.2. Board Co-Option and Corporate Social Responsibility

Table 3 presents baseline regression results that how co-opted boards and corporate social responsibility are interrelated. The dependent variable of interest is *CoOp*, measured by co-opted directors' number over directors' total number. The independent variable is corporate social responsibility, which is represented by the total CSR rating (CSR) in columns (1) and (2) and the CSR strength (*CSRStr*) in columns (3) and (4). Columns (1) and (3) explore the univariate connection between board co-option and CSR engagement without considering the control variables, while columns (2) and (4) further incorporate a vector of firm-level control variables. All the columns control for the year and industry fixed effects. The estimated coefficients on *CoOp* are negative and significant at a 5% or 1% significance level across all the columns. This result confirms Hypothesis 1, which states that CSR engagement suffers when directors have been co-opted.

Taking the example of column (2), the coefficient of *CoOp* is -0.1148 with a significant level of 5% ($p\text{-value} < 0.05$). This implies one unit increase in *CoOp* decreases the CSR score by 0.1148. Considering the economic significance, it shows one standard deviation increase in *CoOp* is associated with a decrease in CSR of 0.0164 ($= -0.1148 \times 0.316 / 2.218$). Accordingly, the negative relationship between board co-option and corporate CSR activities is both statistically and economically significant. The result supports the stakeholder theory. Co-opted directors support their CEOs, so they can't be effective regulators. Co-opted directors are loyal to CEOs, so they cannot be effective regulators. CEOs are unlikely to devote much consideration to whether the interests of stakeholders are being met while they are protected by co-opted boards. They may even choose investments that are not optimal for shareholders for their own benefit (Coles et al., 2014). Therefore, the more obvious the co-option of the board, the less attention the company pays to CSR.

Regarding the control factors, there is a general agreement with previous studies (e.g., Borghesi et al., 2014; McCarthy et al., 2017; McGuinness et al., 2017). In this paper, CSR is found to be significantly positively linked to *size*, *ROA*, *MTB* and *CashH* and has significant negative correlations with *Lev* and *SaleG*. For example, larger firms tend to have greater economic power and governance capacity, so they invest more in CSR (McGuinness et al., 2017).

The table presents the association between board co-option and CSR. The independent variable of interest is *CoOp*, measured by the percentage of co-opted directors split by all directors. The dependent variable is corporate social responsibility, which is constructed by CSR and *CSRStr*. In columns (1) and (2), CSR consists of the difference between CSR scores on strengths and concerns, but columns (3) and (4) only observe *CSRStr* to test whether board co-option has an impact on CSR strengths. Columns (1) and (3) evaluate the link between board co-option and CSR without considering the control variables,

while columns (2) and (4) further focus on the control variables, which include *Size*, *Lev*, *ROA*, *MTB*, *SaleG*, *CashH*. The appendix shows more details on the variable definitions. All independent variables are winsorized at 1st and 99th percentiles to eliminate the potential effects of extreme values. All models control for the year and industry-fixed effects. Coefficients are reported in this table and robust standard errors are in parentheses. *** indicates 1% significance level ($p < 0.01$), ** indicates 5% significance level ($p < 0.05$), * indicates 10% significance level ($p < 0.1$).

Table 3: Baseline Regression: Co-opted Board and Corporate Social Responsibility

| Dependent variable= | CSR | | CSRStr | |
|---------------------|------------------------|------------------------|------------------------|------------------------|
| | (1) | (2) | (3) | (4) |
| CoOp | -0.2016*** (0.0543) | -0.1148** (0.0523) | -0.4573*** (0.0544) | -0.2337*** (0.0474) |
| Size | | 0.4285*** (0.0194) | | 0.8241*** (0.0200) |
| Lev | | -0.4867*** (0.1031) | | -0.5899*** (0.0939) |
| ROA | | 0.9293*** (0.2489) | | 0.8269*** (0.2270) |
| MTB | | 0.1704*** (0.0154) | | 0.1683*** (0.0139) |
| SaleG | | -0.5235*** (0.0963) | | -0.7847*** (0.0825) |
| CashH | | 0.5327*** (0.1115) | | 0.6514*** (0.1024) |
| Constant | -0.5246 (0.4264) | -4.6913*** (0.4285) | 1.8342*** (0.6211) | -5.5309*** (0.5192) |
| Year FE | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes |
| Observations | 14,359 | 14,359 | 14,359 | 14,359 |
| R-squared | 0.0918 | 0.1602 | 0.2035 | 0.4017 |

5.3. Endogeneity Tests

5.3.1. High-Dimensional Fixed Effect Model

To control for the time-varying differences across industries, this paper employs the high dimensional fixed effect model. Table 4 incorporates the interacted fixed effects between year and industry in the regression model. Unlike columns (1) and (3), columns (2) and (4) consider control variables. The estimated coefficients on *CoOp* are consistently negative and significant across all the columns.

Using column (2) as an example, the coefficient of *CoOp* is -0.0962 with a significant level of 10% (p -value <0.1). This implies one unit increase in *CoOp* decreases the CSR score by 0.0962. This result aligns with Table 3's findings, which likewise supports Hypothesis 1 that co-opted directors are negatively related to CSR. This is consistent with the stakeholder theory argument that board co-option is likely to be detrimental to the interests of stakeholders and lead to a decline in CSR engagement (Jiraporn & Lee, 2018).

The outcomes of the high-dimensional fixed effect model are shown in Table 4. The independent variable of interest is *CoOp*. The dependent variables are *CSR* in columns (1)-(2) and *CSRStr* in columns (3)-(4). All models control for the interacted fixed effects between year and industry to control for the time-varying differences across industries. The appendix shows more details on the variable definitions. All independent variables are winsorized at 1st and 99th percentiles to reduce the potential effects of extreme values. Coefficients are reported in this table and robust standard errors are in parentheses. *** indicates 1% significance level ($p < 0.01$), ** indicates 5% significance level ($p < 0.05$), * indicates 10% significance level ($p < 0.1$).

Table 4: Endogeneity Test: High-Dimensional Fixed Effect Model

| Dependent variable= | CSR | | CSRStr | |
|---------------------|------------------------|------------------------|------------------------|------------------------|
| | (1) | (2) | (3) | (4) |
| CoOp | -0.2016*** (0.0583) | -0.0962* (0.0565) | -0.4383*** (0.0595) | -0.1984*** (0.0517) |
| Size | | 0.4328*** (0.0145) | | 0.8315*** (0.0132) |
| Lev | | -0.3674*** (0.1017) | | -0.5921*** (0.0931) |
| ROA | | 0.9588*** (0.2698) | | 0.7025*** (0.2471) |
| MTB | | 0.1821*** (0.0175) | | 0.1841*** (0.0161) |
| SaleG | | -0.5337*** (0.107) | | -0.8732*** (0.0980) |
| CashH | | 0.4481*** (0.124) | | 0.6228*** (0.1135) |
| Constant | 0.3408*** -0.0327 | -3.4851*** (0.1398) | 1.5198*** (0.0334) | -5.3904*** (0.1280) |
| Year FE×Industry FE | Yes | Yes | Yes | Yes |
| Observations | 14,064 | 14,064 | 14,064 | 14,064 |
| R-squared | 0.1688 | 0.2379 | 0.6863 | 0.6903 |

5.3.2. Propensity Score Matching Approach

This paper uses the Propensity Score Matching Approach (PSM) for further discussion because the relationship between board co-option and CSR may be affected by firm characteristics, while PSM analysis can exclude the bias caused by firm features on the results (Zaman et al., 2021). Specifically, this paper uses a 1-to-1 propensity score to match the board co-option ratios of two samples, divided into high co-option and low co-option. The treatment group consists of firms in the top decile of board cooption, while the control group is non-top decile firms. This paper matches the treatment and control groups based on firm-level characteristics (i.e., *Size*, *Lev*, *ROA*, *MTB*, *SaleG*, and *CashH*). In Table 5, panel A illustrates the baseline regression model's univariate mean differences in firm-level characteristics comparing the treatment and control groups. The regression findings from the matched sample are shown in Panel B. According to panel A, the treatment and control samples' means do not differ significantly, indicating that company attributes do not significantly affect board co-option and participation.

Panel B shows that *CoOp* maintains a significant negative relationship with CSR. The coefficient of operation, taking column (2) as an instance, is -0.2304 with a 1% significance level (p-value 0.01). This suggests that for every unit increase in *CoOp*, the CSR score is reduced by 0.2304. This result supports the findings in Table 3 and validates Hypothesis 1 that co-opted directors have a negative impact on CSR engagement. This conclusion supports the findings in Table 3 and validates Hypothesis 1 that directors who have been coopted get lower CSR ratings. This verifies that co-opted directors may not be qualified regulators and tend not to oppose CEOs when they make decisions that are sub-optimal for stakeholders (Kuang & Lee, 2017).

This table examines whether the negative relationship between board co-option and corporate social responsibility (CSR) is driven by the systematic differences in firm-level characteristics. This table employs the propensity score matching (PSM) method and constructs the matched sample between firms with a high proportion of board co-option and firms with low co-option. The treatment group is constituted of firms whose board co-option proportion is above the top deciles. The control group consists of the firms that are matched using the 1-to-1 propensity score matching with a calliper of 0.01. Panel A shows the univariate mean differences in the firm-level characteristics between treated and control groups, as used in the baseline regression model. Panel B presents the regression results from the matched sample. All independent variables are winsorized at 1st and 99th percentiles to eliminate the potential effects of extreme values. All models control for the year and industry-fixed effects. Coefficients are reported in this table and robust standard errors are in parentheses. *** indicates 1% significance level (p<0.01), ** indicates 5% significance level (p<0.05), * indicates 10% significance level (p<0.1).

Table 5: Endogeneity Test: Propensity Score Matching Approach

| Panel A: Comparison of treatment and control firm | | | | |
|---|------------------------|------------------------|------------------------|------------------------|
| Variables | Treated | Control | Difference | p-value |
| Size | 7.341 | 7.343 | -0.002 | 0.977 |
| Lev | 0.473 | 0.468 | 0.005 | 0.496 |
| ROA | 0.055 | 0.051 | 0.003 | 0.325 |
| MTB | 2.310 | 2.297 | 0.014 | 0.808 |
| SaleG | 0.115 | 0.128 | -0.013 | 0.090 |
| CashH | 0.478 | 0.480 | -0.002 | 0.843 |
| Panel B: Regression results from the matched sample | | | | |
| Dependent variable= | CSR | | CSRStr | |
| | (1) | (2) | (3) | (4) |
| CoOp | -0.2287*** (0.0703) | -0.2304*** (0.0669) | -0.2515*** (0.0652) | -0.2360*** (0.0582) |
| Size | | 0.3561*** (0.0504) | | 0.5881*** (0.0514) |
| Lev | | -0.6119*** (0.2042) | | -0.8028*** (0.1734) |
| ROA | | 0.6124 (0.4636) | | 0.4628 (0.4207) |
| MTB | | 0.1414*** (0.0282) | | 0.1218*** (0.0251) |
| SaleG | | -0.5038*** (0.1815) | | -0.7035*** (0.1485) |
| CashH | | -0.0444 (0.2399) | | 0.0731 (0.1986) |
| Constant | -0.0288 (0.4892) | -2.8104*** (0.7469) | 1.3793*** (0.4368) | -2.8829*** (0.5893) |
| Year FE | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes |
| Observations | 2,586 | 2,586 | 2,586 | 2,586 |
| R-squared | 0.0523 | 0.1493 | 0.1780 | 0.3270 |

5.4. Alternative Measures of Board Co-Option

This section uses *TWCoOp*, an alternate measure of board co-option, to re-run the baseline regression model as a robustness check. Table 6 shows the empirical results. Columns (1) and (2) test the univariate relationship between *TWCoOp* and *CSR* and the relationship with the inclusion of control variables, while columns (3) and (4) demonstrate the link between *TWCoOp* and *CSR*. The method also considers year and industry-fixed effects. Although *TWCoOp* is used as a substitute for *CoOp* as the dependent variable in this section, the results still demonstrate that it supports a negative correlation with *CSR* at the 1% confidence level.

In column (2), for each unit increase in *TWCoOp*, the *CSR* score will fall by 0.1402. This further justifies the validity of hypothesis 1 based on the stakeholder perspective. This result suggests that tenure increases may intensify director co-option, resulting that the erosion of *CSR* activities by board co-option remaining significant when director tenure is considered (Coles et al., 2014).

This table examines the relationship between board co-option and corporate social responsibility (*CSR*). The independent variable of interest is *TWCoOp*, measured by the weighted tenure of board co-option divided by the weighted tenure of all directors. In contrast to *CoOp*, *TWCoOp* focuses on the impact of board co-option's tenure on *CSR*. The dependent variable is corporate social responsibility, which is constructed by *CSR* and *CSRStr*. All independent variables are winsorized at 1st and 99th percentiles to reduce the potential effects of extreme values. All models control for the year and industry-fixed effects. Coefficients are reported in this table and robust standard errors are in parentheses. *** indicates 1% significance level ($p < 0.01$), ** indicates 5% significance level ($p < 0.05$), * indicates 10% significance level ($p < 0.1$)

Table 6: Alternative Measures of Board Co-option

| Dependent variable= | CSR | | CSRStr | |
|---------------------|------------------------|------------------------|-----------------------|------------------------|
| | (1) | (2) | (3) | (4) |
| TWCoOp | -0.2733*** (0.0514) | -0.1402*** (0.0491) | -0.5620*** (-0.05) | -0.2471*** (0.0439) |
| Size | | 0.4271*** (0.0194) | | 0.8218*** (0.0200) |
| Lev | | -0.4860*** (0.1030) | | -0.5845*** (0.0936) |
| ROA | | 0.9229*** (0.2486) | | 0.8233*** (0.2266) |
| MTB | | 0.1709*** (0.0154) | | 0.1688*** (0.0139) |
| SaleG | | -0.5187*** (0.0963) | | -0.7804*** (0.0825) |
| CashH | | 0.5341*** (0.1114) | | 0.6509*** (0.1023) |
| Constant | -0.5343 -0.4266 | -4.6877*** -0.4288 | 1.8128*** -0.6206 | -5.5270*** -0.5202 |
| Year FE | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes |
| Observations | 14,359 | 14,359 | 14,359 | 14,359 |
| R-squared | 0.0925 | 0.1603 | 0.2056 | 0.4018 |

6. Conclusion and Discussion

This paper explores whether co-opted boards will affect corporate social responsibility. It uses a sample of 14,359 data from U.S. public companies and finds that increased board co-option undermines CSR. After being chosen by CEOs, co-opted directors frequently treat them more favourably. Thus, when a firm has more co-opted directors, its corporate governance system tends to be less effective than that of companies having a low weight of co-opted directors. The CEOs of these companies are more likely to prioritise the satisfaction of achieving their own goals rather than seeking more wealth for their stakeholders. In addition, the power of CEOs is further enlarged by weak internal governance. They also have a higher probability of overconfidence and a lack of rational judgement in expanding their investments, thus leaving stakeholders with more risk of loss.

This negative relationship still holds after using the endogeneity test and alternative measures of board co-option in this paper. On the one hand, the endogeneity test makes use of the propensity score matching method and the high-dimensional fixed effect model, which consider the fixed effects of year and industry interactions and exclude the interference of firm characteristics, respectively. On the other hand, this paper further confirms the negative relationship using co-opted directors with weighted tenure as an alternative measure. The result demonstrates the positive effect of tenure on the extent of co-option, with co-opted directors who have held their positions for a longer period having a higher likelihood of harming CSR.

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