CEOs political connection and its relation to executive compensation

Arienne van Leeuwen Connolly
459866

Master Thesis
Accounting, Auditing & Control

Erasmus University Rotterdam
Erasmus School of Economics

Supervisor:
Dr. Wenjiao Cao, Assistant Professor
Erasmus School of Economics, Accounting Department

Second Assessor:
Dr. Jihun Bae, Assistant Professor
Erasmus School of Economics, Accounting Department

2022

Abstract

This paper examines the relation between the political connections of a CEO and the executive compensation of a CEO. This is studied by means of an OLS regression analysis where the FEC dataset on individual contributions is used to create two metrics for the political connections of a CEO in the period from the year of 1996 till 2006. The findings demonstrate a positive and significant relation between the total amount of a CEOs annual political donation and the total compensation. The number of candidates a CEO yearly supports is found to be insignificant in relation to a CEOs compensation. These findings indicate that the amount of political donation made by a CEO can be used by the board of directors. The amounts of political donation can be examined to screen the degree of political capital a CEO may have, since a significant positive relation is found. The board of directors can take this information into account when structuring the compensation scheme of a CEO ex ante signing the contract. Political connections can serve as a mitigating role in the principal-agency problem by reducing the information asymmetry.

Table of Contents

1. Introduction

The purpose of this study is to examine the possible benefits of political donations in terms of executive compensation. Hereby, we are able to study a direct personal activity of a top executive in relation to the firm. Thus, we can identify a manager's behaviour in relation to the stake that the manager has in the firm through its position and the compensation it receives. This can provide significant evidence towards the agency theory.

1.1 Main research question

The research question of this study is as follows:

Do CEOs who donate to politicians benefit from their political connection in terms of compensation?

1.2 Relevance

There is an important gap in the existing strategic management literature with regards to establishing a robust pay-performance association. Alternative explanations are needed to establish the determinants of an executive's compensation scheme. This is of relevance to for example the board of directors, who aim to align the interests of shareholders and CEO by means of the executive's compensation scheme. It is also of relevance for CEOs to know which factors influence their compensation in order to act upon that information. CEOs have proven to have political connections (Boubakri et al., 2008). It is also been found that political connections can be beneficial to performance of a firm (Faccio, 2006; Fisman, 2001; Hillman, 2005; Johnson&Mitton, 2003). Therefore, it is of relevance to examine the relation between political connections and compensation of a CEO.

1.3 Methodology

This research will make use of data on political donations and executives from the period of 1996 till 2006 election cycles in the United States. Goldman et al. (2009) provides evidence on the importance of political connections in the U.S. The data starts in 1996, due to the ISS database, which does not provides data on previous year. Moreover, observed data is until 2006 due to FAS 123R change in accounting standard causing some variables in Execucomp to be discontinued.

This study makes use of Execucomp database and CRSP/Compustat merged database to collect data on executive compensation and firm performance related variables. It will also make use of FEC to collect data on the political donations made by firms. For governance related variables, this paper makes use of the ISS (former Risk Metrics) database.

A political connection of a firm can be identified in multiple manners by looking at its large shareholders (anyone controlling at least 10 percent of voting shares) or one of its top officers (CEO, president, vice-president, chairman, or secretary) (Faccio, 2006). This research focuses on the CEOs political donations and compensation structure. First, individual financial contributions of CEOs during relevant election cycles for House, Senate and Presidential

campaigns are identified. Based on this data, 2 measures are created; number of candidates that each sample CEO supports per year and total absolute amount of contribution that the CEO makes per candidate per year.

To measure CEO compensation structure, this research makes use of two main variables. This paper examines total compensation as a first measure of executive compensation. It comprises Salary, Bonus, other annual, total value of restricted stock granted, total value of stock options granted (using black-Scholes), long term incentive pay-outs, and all other total ('TDC1').So, TDC1 includes guaranteed annual compensation (salary) and long-term incentives of an executive. The second variable is the pay-performance sensitivity (PPS) variable, which measures the sensitivity of an executive's compensation to change in the value of shareholders.

Finally, I will collect firm-, industry-, and observable CEO- and board-specific characteristics to use as control variables.

1.4 Main findings

The research question examines the influence of CEOs political connections on a CEOs compensation. The findings of this study demonstrate a positive and significant relation between TDC1 and the total amount of political donation a CEO makes annually, by means of an OLS regression. The same results when using PPS as dependent variable. Furthermore, the number of candidates supported by a CEO is not significantly related to PPS or TDC1. Lastly, the cross-sectional analysis presents that the geographical proximity between the CEO supported political candidate and CEOs firm does not significantly strengthen the relation between a CEOs political connection and a CEOs compensation.

1.5 Contribution

This research can contribute to two literature strands.

First, in case of literature related to the determinants of executive compensation, a great deal of research focuses on the relation between executive compensation and firm performance. For example, the principal-agent theory has been used to determine how variation in CEO compensation can be explained (Garen, 1994). However, from the current research no robust relation between executive compensation and firm performance have been identified. Therefore, alternative explanations on the determinants of executive compensation are needed. In this sense, political connections can play a significant role in the determination of executive's compensation.

Second, research has proven that executives have political connections (Boubakri et al., 2008) and that these connections can significantly influence the operation and performance of a firm (Faccio, 2006; Fisman, 2001; Hillman, 2005; Johnson&Mitton, 2003). Cooper et al. (2010) provides evidence on how political donations can have a positive impact on future expected returns. However, these studies show that there is still need for further research on literature regarding political connections. Political connections through campaign donations can be seen as a political investment. Corporate value will only be enhanced if the marginal benefits are higher

than the marginal costs of the political connection (Shleifer&Vishny, 1994). However, there is a lack of evidence on the benefits that can be deduced from these political donations. Previous studies have mainly examined the response to political donations from a legislative perspective (Ansolabehere et al., 2003). The main issues in examining this relationship are due to the observability and contingency of possible outcomes from political donations. For example, from a legislative aspect, a reorganization of the political agenda is difficult to identify as well as providing evidence for a causal relation (Hall&Wayman, 1990).

1.6 Implications

From the findings of this research, it can be suggested to the board of directors to recognize a CEOs political capital when establishing the compensation plan. Political capital can be financially beneficial for a company. Political capital is also not easily transferrable to other executives, making a CEO with political capital valuable for a firm. It can be suggested to board of directors to screen political capital of a CEO by looking at its political donations throughout the years. The findings in this paper suggest a significant relation between the political donation of a CEO and its compensation. Furthermore, from the conclusions of this study it can be suggested to CEOs to create political connections as it can be beneficial in terms of their compensation and the performance of their firm.

2. Theoretical background and hypothesis development

2.1 Executive compensation scheme

2.1.1 Principal agency problem

The theory of the agency problem presents a reasoning for the essence of the relation between executive compensation, incentives and firm performance. The agency problem depicts the issue created as a result of separating ownership and control (Berle&Means, 1932; Jensen&Meckling, 1976). It is an issue between two types of parties, namely, principal and agent. The principal (company shareholders) hires the agent (CEO) who receives control of the company. The principal needs the agent to act in the best interests of the company. However, there can be certain CEO actions not possible to be monitored. It is not always visible for the principal whether the agent is taking actions in the best interest of the company. This phenomenon, where a part of information concerning two parties is only available to one of these two parties, is referred to as information asymmetry. Information asymmetry increases risk of the agent acting according to its own interest with the aim to maximize its own utility instead of the principal's utility, creating an agency problem.

The agency problem can be distinguished from three perspectives; equity, free cash flow and debt (Berle&Means, 1932; Jensen&Meckling, 1976). First, an equity-based agency problem is between an executive who owns less than 100% of the company's shares and the shareholders. In this case, shareholders are typically identified as risk neutral and executives as risk averse. Executives are interested in maximizing their own utility by increasing their compensation. Shareholders are interested in increasing value of the company's shares by means of incentive

mechanisms addressing executives. Hereby, executives are motivated to act in the best interest of the shareholders. Second, is free cash flow-based agency problem, which occurs between creditors and executives. In terms of cash flows, shareholders prefer to be compensated in forms of dividends or repurchases, while executives tend to be more interested in preserving or reinvesting free cash flow. The preservation or reinvestment of free cash flow will generally not improve shareholder value. Third, is debt-based agency problem, which occurs between shareholders and debt holders. Typically, shareholders are more interested in riskier projects than debt holders. Riskier projects can result in the maximization of shareholders' value.

In a company where the agency problem occurs due to differences in interests between owners and managers, it can be improved by creating incentives to align their interests. The effect of incentive mechanisms differs depending on type of compensation (Holmstrom, 1979; Shavell, 1979). Executive compensation schemes can include incentives to act in the best interest of the firm and shareholders (Abowd&Kaplan, 1999; Murphy, 1999). Executive compensation typically consists of base salary, annual bonus, stock options and long-term incentives plans (Murphy, 1999). The base salary is a guaranteed, set amount and bonus depends on certain performance measurements. The long-term incentives are based on performance indicators of the company. A compensation plan with a high degree of performance-based components, such as the bonus, are more likely to attract CEO's who are willing to increase value of the company. Murphy (1999) does points out that base salary will most likely increase in the first five years of the contract, which can moderate effects of relevant incentives. Additionally, contrary to stock ownership, incentive value of stock options can decrease and even have no incentive value at all when, for example, the option only has an extrinsic value and no intrinsic value. In other words, when the stock option is out of the money (OTM) and is therefore unlikely to be exercised.

Furthermore, stock ownership as a part of the compensation plan depicts a direct relation between a CEOs wealth and the value of the firm. However, this research examines the relation between the motivation of a CEO to make political donations and the firms value. The motivation of a CEO to make political donations is dependent on its wealth, it indicates capability to donate. Moreover, stock ownership acts as an incentive as well as that it impacts wealth of a CEO. Thus, there is the risk of reverse causality. There is a chance of a CEO making donations for reasons related to its level of wealth and not due to incentives included in the compensation plan. However, the amount of the donations made by CEOs in the sample of this paper are relatively small in comparison to their annual compensation. Therefore, risk of reverse causality decreases, since dependency on wealth is lower due to small amounts of donations.

According to Jensen&Murphy (1990), pay-performance sensitivity (PPS) is the main mechanism of the agency problem. It measures how a change in equity affects an executive's compensation pay. A higher degree performance measurements based compensation, can result in higher degrees of PPS (Hartzell&Starks (2003); Almazan et al. (2005); Cadman et al. (2010)). Hartzell&Starks (2003) found a positive association between institutional-investor ownership and PPS and a negative association with level of compensation. The findings of the paper of Hartzell&Starks (2003) can be interpreted that a greater concentration of investors is associated

with a greater degree of monitoring and incentive based executive compensation schemes. Their research covers 500 firms and examines the period from 1992 through 1997.

2.1.2 Information asymmetry

There are two types of information asymmetry, ex post and ex ante. Ex post information asymmetry refers to the behaviour of the agent after a contract is signed between principal and agent. The agent can act after signing the contract in a certain way that is not visible for the principal and is not addressed in the contract (Hendrikse, 2003; Holmström, 1979). A principal can adopt monitoring mechanisms to increase visibility of the agent's actions and in turn decrease information asymmetry. Furthermore, ex ante information asymmetry refers to the situation before signing the contract. Hereby, the agent has greater information on its motives and capabilities in comparison to the principal. To decrease information asymmetry, the principal can allow the agent to signal its motives and capabilities or/and the principal can screen the agent (Akerlof, 1970).

2.2 Executive compensation and firm performance

In existing literature there have been several papers who have studied the relation between executive compensation and performance of a company. Some studies found weak or strong, but positive relations. Other studies found a negative relation. Overall, results are ambiguous.

First, Jensen&Murphy (1990) identified a relation between executive compensation and firm performance in two different studies. The first study included 1,409 companies from the U.S. for the years from 1974 till 1986. The results reported that an average increase of $1.35 cents in received compensation of a CEO is related to a $1,000 increase in wealth of shareholders. Thus, a weak relation was found. Equally, in the second study a $6.7 increase in salary and bonus of a CEO was to be related to a $1,000 increase in wealth of shareholders indicating a weak relation. This second study involved 250 companies in the U.S. looking at years from 1974 till 1988.

Second, Hall&Liebman (1998) found a strong positive relation between pay of a CEO and performance of the company. They concluded that CEO compensation is strongly related to performance of a company. In their study, they looked at 478 companies in the time period from 1980 till 1994. Their results were supported by Mehran (1995) who looked at 153 manufacturing companies from the U.S. in years from 1979 till 1980. The study looked at the effect of Tobin's Q and return on assets (ROA) of a company on executive compensation and equity that they hold. Tobin's Q and ROA are performance indicators. The results implied a strong, positive relation. It also resulted that companies with higher degree of PPS, produced relatively greater shareholder value. Furthermore, Core et al. (1999) provided further evidence for a positive relation between executive compensation and firm performance. They looked at 205 companies in the U.S. from year 1982 till 1984. In their study the annual stock return, in contrary to the ROA, showed to have a positive relation with an executive's compensation.

Third, more recent studies have found a positive relation between firm value and executive compensation (Gabaix&Landier, 2006; Gabaix et al., 2014). Specifically, firm value in terms of firm size was found to be significant in both studies. Furthermore, Ozkan (2011) examined the relation between firm performance and CEO compensation. In this study, Tobin's Q was used as an indicator for company's performance. However, Tobin's Q was found not to be significant in relation to CEO compensation level. Additionally, Conyon&Murphy (2000) found a positive relation between firm performance in terms of stock returns and CEO compensation. On the other hand, contrary results were found by Girma et al. (2007) and Duffhues&Kabir (2008) indicating a weak or negative relation between executive compensation and firm performance. More specifically, Girma et al. (2007) found corporate governance reforms to have a negative effect on CEO compensation in relation to firm performance.

2.3 Political connections

2.3.1 Importance of political connections for the firm

Political ties are seen as important resources due to their influence on firm related decision making (Claessens et al., 2008; Faccio, 2006; Fisman, 2001; Goldman et al., 2009; Kim &Zhang, 2016; Leuz&Oberholzer-Gee, 2006).There are a few studies which can provide evidence on the importance of political connections for a company. First, Fisman (2001) shows a correlation between development in health of President Suharto and value of Indonesian companies with a political connection to the President and its family. Second, Faccio (2006) shows that companies active in relatively corrupt countries increase in value when engaging in politics. Moreover, this research also shows that political connections are most valuable in countries with a weak political system due to high levels of corruption and an ineffective legal system. Third, Faccio et al. (2006) provides direct evidence of politically connected firms having a higher chance to be bailed out by the government. Fourth, Goldman et al. (2009) shows a significant relation between the political connection of the board of directors to either democrats or republicans and the influence on the company's return upon announcement of who won the elections. This research also identifies a relation between companies return and announcements of a new board of director who is politically connected. So, Goldman et al. (2009) provides evidence for the value of political connections in the U.S.

This study will examine the relation of political connections in terms of campaign donations. Cooper et al. (2010) and Claessens et al. (2008) have used political donations as an indicator of political connections. CEO's can make a political donation with the intention to establish a relation with a politician, to maintain a relation and/or to demonstrate to external figures the extent of its connections. According to Cooper et al. (2010), this can also be a reason for a CEO not to make political donations due to the visibility. Nevertheless, for a company there is value in having political connections, as is for example indicated by their spending on lobbying expenses. A CEO who can provide access to political matters is therefore regarded as valuable, as was also reasoned by Agrawal&Knoeber (2001). Additionally, according to the market-value hypothesis the compensation of a CEO is determined by market forces (Frydman,

2007). Therefore, if political capital of a CEO is seen as a valuable asset this will lead to a higher CEO compensation.

2.3.2 Political connection and firm performance

There are various manners in which government officials can influence operations and performance of a company. Government officials can, for example, be stricter on competitors and create a relatively beneficial institutional environment for politically connected companies by means of tariffs, tax incentives and regulatory requirements (Goldman et al., 2009). Moreover, political figures can create a favourable regulatory environment for a certain company by also impeding other companies to enter the market (Bunkanwanicha&Wiwattanakantang, 2009). This makes political connections of value for CEO in terms of executive compensation. Faccio (2010) provides evidence on companies with political connection to be more likely to receive credit, lower tax rates and have an increase in market shares. Boubakri et al. (2012) finds that having political connections can result in a relatively low cost of capital. Furthermore, Morck et al. (1998) argues that family businesses with political connections have greater accessibility to limited resources. Also, Cooper et al. (2010) identifies a positive relation between political donations and future expected return of a company. Therefore, a CEO can decide to make political contributions to have influence on certain policies and legislation that impacts the company or its industry. On the other hand, CEOs can also be motivated to make a donation because it shares political ideas of the candidate. There have been studies such as Di Giuli&Kostovetsky (2014) and Hutton et al. (2014) which researched political ideologies of CEOs in relation to firm related decision-making.

Studies have proven that political ties create advantages for a firm. Sheng et al. (2011) argues that political ties can create more opportunities in terms of external finance and product competition. Piotroski&Zhang (2014) argue IPOs are more likely to succeed when firms have political ties. Even more when the political connection is stronger. Kim&Zhang (2016) provide evidence that firms with political ties behave more tax aggressive than firms who do not have political ties. Furthermore, political ties are mainly created by relatively high-level executives, such as managers or border members (Cao et al., 2019). Francis et al. (2016) provides evidence that CEOs who make political donations are significantly related to higher levels of tax sheltering.

However, it must be noted that political contributions are relatively small in the U.S. partly due to regulations (Ansolabehere et al., 2003). Therefore, it is harder to identify a significant association with firm performance. Still, there is evidence provided by previous research that political ties play a significant role in determining firm performance. Goldman et al. (2009), for example, compared firms connected to either Democrat or Republican parties and provided evidence that the firm connected to the winning party increased significant in value.

2.4 Hypothesis development

We can distinguish between consumption and investment focused political donations. The main difference is that the latter contribution is expected to generate a return. This return can

be in the form of a financial return, in the case of a CEO this can be identified in the form of executive compensation. Specifically, a political connection can result in beneficial regulations and tax requirements affecting the firm, which in turn can result in greater compensation for the CEO. In this sense political connections can be categorized as a form of social capital (Coleman, 1988; Flap&De Graaf, 1986; Useem&Karabel, 1986; Zweigenhaft, 1992). Political donations can provide resources for CEOs in the form of a social political network. It can be of use to influence political decisions that affect the firm to create a beneficial political environment in which the CEOs interest are best served. Resulting in hypothesis 1; '*A greater degree of political connections is associated with a relatively higher CEO compensation'*.

The interests of a CEO are influenced by the components of its executive compensation scheme. The executive compensation scheme of a CEO is generally influenced by the performance of the firm and in turn by decisions in the political environment. Additionally, a CEO has relatively great decision-making power and thus management control in the company, which makes them ultimately responsible for the performance of the firm as well as to act accordingly to the relevant regulatory constraints.

The motives of a CEO to make political investments cannot be directly measured. Nevertheless, the more sensitive the CEO executive compensation scheme is to the firm's stock price, the more it is expected to care about political decisions. Hereby, the assumption is made that the economic performance of a firm is influenced by the political environment. This results in hypothesis 2; '*A greater degree of political connections of a CEO is positively related to the pay-performance sensitivity'*.

If this hypothesis is confirmed, it can provide direct evidence for an investment motivation of a CEO and indirect supporting evidence that political donations positively impact the performance of a firm and in turn the total compensation of a CEO

3. Research design

3.1 Theoretical relations

This paper examines the relation between political connections of a CEO and CEO compensation.

3.1.1 Measures of compensation

CEO compensation will be examined on two levels. The first metric for CEO compensation is the total compensation (TDC1). The second metric is pay-performance sensitivity (PPS). The sensitivity of old option grants held by the CEO will not be used, because it is not available on Execucomp for the required years. Therefore, I will follow Yermack (1995) and Hartzell&Starks (2003) who make use of new option grants to examine their sensitivity in relation to performance.

The construction of the pay-performance sensitivity is based on the Black-Scholes model from Merton (1973). The construction is elaborated in appendix C.

The option delta was constructed by first taking the partial derivative from the Black-Scholes model resulting in:

$$(\partial(option\ value))/(\partial(price)) = e\text{^}(-dT)\ N(Z)$$

Thereafter, the option delta is multiplied by the number of options granted divided by the number of outstanding options resulting in the pay-performance sensitivity. The pay-performance sensitivity is then multiplied by 1000, to be able to interpret the variable 'PPS' as the amount of dollars a CEO receives for each extra $1000 of shareholder value.:

$$PPS = option\ delta * \ (number\ of\ options\ granted)/ (number\ of\ outstanding\ options)*1000 \quad (1)$$

To create these metrics, the data from Execucomp, CRSP/Compustat merged and OptionMetrics is used. PPS includes solely number of options granted instead of other forms of compensation, because the importance of option grants as part of the executive compensation scheme, has increased by the years as stated by Murphy (1999). More specifically, in the period of the 1990s option-based compensation substituted salary as the greatest part of an executive's compensation (Murphy, 1999). In addition, option grants are an ex-ante indicator in contrary to other compensation components (Hartzell&Starks, 2003).

3.1.2 Measure of political connection

To measure the degree of political connection, two metrics will be used. The first metric of a political connection is the total amount of donations CEO i made in year t per candidate j.

$$\text{Total\_absolute\_donation}jit\ = \sum_{J=1}^{J} Donation\ \ jit \quad (2)$$

The second metric of a political connection is the number of candidates CEO i supports in year t. Equally, J represents the candidate that CEO i donates money to.

$$\text{Total\_number\_candidates}it\ = \sum_{J=1}^{J} Candidates\ \ jit \quad (3)$$

To create these metrics, the data on individual contributions is used from FEC. It looks at a five-year period, namely, from 1996 to 2006. Examining individual contribution to political campaigns by CEOs as an indicator of political connectedness has been previously used by Cooper et al (2010) and Claessens et al. (2008).

3.2 Control variables

First, this study includes CEO related control variables to control for the possible relation between CEO characteristics and the executive compensation following Bertrand&Schoar (2003) and Murphy (1999). CEO gender dummy variable is used, equal to 1 when representing a male CEO. Smith et al. (2006) and Carter et al. (2003) found a positive relation between gender diversity and firm performance. CEO tenure can indicate level of experience of a CEO as it represents number of years since it became a CEO. CEO tenure can also indicate managerial power of a CEO. According to Evans et al. (2010), a higher tenure reflects a relatively great level of bargaining power in the observed company. The influence of CEO tenure on firm performance is ambiguous. According to Salancik&Pfeffer (1980) CEOs with a greater tenure

are more committed to improve performance. On the other hand, Miller (1991) argues that CEOs with a greater tenure prefer to make less changes, which can act as a disadvantage for the firm performance. Lastly, CEO age is also included, and older CEOs are associated with a more conservative manner of decision-making in terms of implementing new ideas (Hambrick&Mason, 1984). This can be seen as a disadvantage for improving firm performance. Given the evidence of CEO characteristics and executive compensation and firm performance, I control for these variables in the regression.

Second, firm specific control variables are used. According to Smith&Watts (1992), firm specific variables such as the size, performance and growth opportunities of a company have systematic differences related to executive compensation. For example, it can be reasoned that companies with more growth opportunities will adopt more incentive-based compensation schemes. Tobin's Q is used as a firm specific control variable, following Kaplan&Zingales (1997), the variable is constructed by dividing the market value of assets by the book value of assets to control for the growth opportunities of a company and until a certain extent also for the expected firm performance. Firm size is used as a control variable following Hartzell&Starks (2003) by taking the natural logarithm from the total book value of assets. Baker et al. (1988) find that companies with of relatively greater size, based on net sales, are associated with better compensated executives. However, Murphy (1999) presents a decreasing importance of net sales in terms of determining company size. Furthermore, firm size as constructed in this study, can control for the power of a firm in the market and its scale of economies (Hitt et al., 1997; Lang&Stulz, 1994; Tallman&Li, 1996). Asset-Leverage is used as a control variable following John&John (1993) and Ortiz-Molina (2007) by dividing the total debt by total assets. According to Nyeadi et al. (2018) a higher leverage can negatively influence the profit of company. They found different levels in leverage to significantly influence profit. Furthermore, leverage can control for financial benefits in terms of tax shield effect (McConnell&Servaes, 1990). ROA is used as a control variable indicating the performance of a company. Lastly, Firm age is used as a control variable constructed by subtracting the year in which the firm was first covered by CRSP (LINKDT) from the year of observation.

Third, directional interlock is included as a control variable for corporate governance and executive compensation following Hallock (1997). A CEO is expected to act accordingly to the company and not to its own interest, the board of directors is expected to monitor this and are found to be less effective if members are involved in another company's board (Core et al., 1999; Mehran, 1995; Hallock, 1997). In this sense, fewer effective boards are related to higher paid executives.

Fourth, year and industry fixed effects are included. A dummy variable for the observed years is included. The first two digits of the SIC code is used to create industry dummy variables since the first two numbers of a SIC code identify the major industries.

3.3 Regression model

To analyse the relation between political connections and a CEOs compensation, I make use of an ordinary least squares (OLS) regression model to estimate the relation between the relevant independent and dependent variables. The following model is tested:

$$\text{Compensation}ti = \beta_0 + \beta_1 * \text{LN}(\text{Total\_absolute\_donation}jit) + \beta_2 * \text{LN}(\text{Total\_number\_candidates}sit) + \beta_3 * \text{year} + \beta_k * \text{control variables} + \text{year and industry fixed effect} \quad (4)$$

The Compensation of CEO i in year t is measured by either the natural logarithm of total compensation (TDC1) or pay to performance sensitivity (PPS). The first coefficient is the natural logarithm of the total absolute value of donations for candidate j in year t made by CEO i. The second coefficient is natural logarithm of the total number of candidates supported by CEO i in year t. These coefficients, $\beta 1$ and $\beta 2$, capture the political connections of a CEO. The natural logarithm is used for the convenience of interpretation and to make the data distribution more normal[1]. The control variables are set on CEO level, firm level and board of director's level. Lastly, a year and industry fixed effect is included. Furthermore, all variables are winsorized at the 1% and 99% level to limit extreme values in the data sample.

Equation 4, $\beta 1$ can be interpreted as a 1% change in total absolute donation is associated with a change of 1%* β_1 in the compensation of CEO i in year t. Equally, the same interpretation can be applied to $\beta 2$. So, if both coefficients are positive and significant, this suggests that a greater degree of political connections are associated with a greater degree of CEO compensation. In this case, we would fail to reject the Hypothesis 1. The null hypothesis of hypothesis 1 is that there is no significant association between the political donation of a CEO and the CEOs compensation.

Furthermore, we would expect the political contribution to be positively related to PPS. If equation (4) is estimated with PPS as a dependent variable, then the key parameters should demonstrate a positive coefficient estimate. In this case, we would fail to reject hypothesis 2. The null hypothesis, that there is no association between PPS and political donations from a CEO, is then rejected.

3.4 Sample

The sample comprises data on CEO compensation, CEO individual political contribution, election results related to the individual contributions, firm specific information, CEO characteristics and corporate governance related data from the period of 1996 till 2006. The examined individual political contributions address the House, Senate and Presidential political campaigns in the U.S.. ISS (former RiskMetrics) provides information about board members from S&P 500 companies from the year 1996. It includes datasets on governance, directors and

[1] The regression is also realized without taking the natural logarithm of the key parameters and it provides similar results. These results are not tabulated.

shareholder proposals. From the dataset ISS 'Directors Legacy' Director age is extracted and Directional Interlock (INTERLOCK). Execucomp is a database providing information about executive compensation for S&P 1000 firms from year 1992. From Execucomp 'Annual compensation' dataset, the following variables were extracted; Gender (GENDER), Date Became CEO (BECAMECEO), Bonus ($) (BONUS), options granted (OPTION_AWARDS_NUM), Salary ($) (SALARY), total compensation (TDC1). Center for research in security prices (CRSP)/Compustat merged database provides information on CRSP stock data and Compustat fundamental data. From CRSP/Compustat merged database 'Fundamentals Annual' dataset the following variables were extracted; first effective date of link (LINKDT), total assets (AT), common/ordinary equity (CEQ), total debt in current liabilities (DLC), total long-term debt (DLTT), deferred taxes (TXDB), earnings before interest (EBITDA), options outstanding end of fiscal (optosey), common/ordinary stock (CSTK) and the closing price (PRCC_F) and ROA. OptionMetrics is a database that provides information on historical option data. From OptionMetrics 'Option Prices' dataset the following variables were extracted; expiration date of the option (exdate) and strike price of the option times 1000 (strike_price). These 4 datasets were merged by matching Compustat unique permanent identifier (GVKEY), ticker code (TIC) and year.

From FEC 'Individual Contributions' dataset from year 1996 to 2006, the following variables were extracted; ID_receiving_committee, transaction_DT, transaction_AMT, date, city, state and zipcode. Additionally, from FEC dataset 'Committee Master' variables candidate identification (CAND_ID) and type of committee were extracted. Also, from FEC dataset 'All candidates' the election results from the relevant years were extracted. These datasets were then merged by matching the committee ID and year. For some candidates election results had to be collected by hand. The following dataset was then merged with the dataset comprising data from Execucomp, ISS, OptionMetrics and CRSP/Compustat merged. The datasets were matched by name of CEO and observed year. However, names were not always structured the same. Following the matching procedure on the software program SPSS, the matching names were hand checked. Finally, all observations with missing values were deleted. Also, duplicate political donations were aggregated as they were from the same CEO to the same candidate in the same year of observation. The sample selection procedure is described in Table 1.

4. Empirical results and analysis

4.1 Descriptive statistics and correlation

The sample size equals 1546 observations and 342 CEOs in the period of the years 1996 till 2006. Table 2 shows mean, standard deviation, 25^{th} percentile, 75^{th} percentile and median of the variables used for OLS regression of equation (4). The two metrics for the dependent variable are total compensation (TDC1) and pay-performance sensitivity multiplied by 1000 (PPS). The mean TDC1 is equal to $9,063.436 in thousands of dollars. The mean PPS is equal to 205.375, implying that a CEO receives on average $205.375 for each extra $1000 of shareholder value. This is relatively low, partly due to a number of CEOs who did not receive any or only a small

amount of option grants. The mean total absolute amount of donation a CEO makes per year per candidate equals $13,985.364. This is higher than the median, which is equal to $8,350.000. A mean higher than the median indicates a right-skewed data distribution. Additionally, the mean number of candidates a CEO supports yearly is equal to 3.390. The median is equal to 2, which is smaller than the mean. This also indicates a right-skewed data distribution. In the OLS-regression the natural log is taken from the dependent variable as well as form the main independent variables. A log-log linear regression is used to transform the skewed data to a more normalized dataset and for more convenient interpretation purposes of the relation between the X and Y variables. Furthermore, in comparison to the average total annual compensation of a CEO, total annual donation of a CEO is relatively small, reducing risk of reverse causality. Donations of relatively lower value decrease dependency on wealth of a CEO in the observed year.

The firm size in terms of the natural log of the total book value of assets has a mean equal to 8.651. The difference between 25th and 75th percentile is not big and standard deviation is equal to 1.538. This makes sense, since they are all S&P 500 firms. The firms in the sample have a mean leverage of 0.220 implying that in general included firms have a relatively good leverage. The 75^{th} percentile equals 0.323 implying that even firms with higher leverage in the sample have a relatively good leverage, meaning lower risk of bankruptcy and insolvency. Tobin's Q has a mean of 1.369, suggesting that on average sample firms are overvalued. The firm market value is greater than the cost of its assets. Even Tobin's Q 25^{th} percentile is greater than 1 and standard deviation is 0.220. So, in general the firms in this sample are overvalued. If Tobin's Q is greater than 1, it also indicates a positive outlook for the firm's growth opportunities. The average ROA of the sample firms equals 18.4%, which is relatively high. A high ROA indicates that on average sample firms perform well.

The average CEO age is equal to 56.7, so on average CEOs in this sample are 57 years old and the 25^{th} percentile is equal to 52 years. Older CEO's can be seen as a disadvantage to improve firm performance. The mean tenure is equal to roughly 9 years and it has a standard deviation of 9.807. This demonstrates relatively great variation between tenure of CEO's included in the sample as is also shown by the difference between the 25^{th} (2 years) and 75^{th} percentile (14 years). The mean of the gender dummy is equal to 0.999, demonstrating that 99.999% of the CEOs in the sample are of male gender. The mean for director interlock is equal to 0.04 demonstrating that 4% of CEOs are interlocked.

Table 3 demonstrates the correlation matrix for the dependent and independent variables of equation (4). TDC1 shows to be positively correlated, at a 5% significance level, with both the value of donations and the number of candidates supported by a CEO, as expected. This gives a first indication that hypothesis 1 holds. On the other hand, the correlation between PPS and value of donations as well as the number of candidates supported by a CEO are not significantly correlated. Moreover, the correlations are of a relatively low magnitude (close to zero). The correlation with the value of donations is also negative. This was not expected following hypothesis 2.

Furthermore, TDC1 is positively correlated with firm size and firm's age at a significance level of 5%, and with firm size at a significance level of 5%. TDC1 is the most correlated with firm size, which can be resonated with that bigger firms have more resource to provide greater compensations to their CEOs. PPS is negatively related with firm size at a 5% significance level. PPS is negatively related to ROA, CEO tenure and CEO age at a 5% significance level. PPS is not significantly correlated with Tobin's Q. This is not in line with the literature, where PPS if found to be positively correlated to ROA and Tobin's Q of a firm (Hartzell&Starks, 2003; Cadman et al. , 2010; Almazan et al., 2005). It is reasoned that a greater chance to improve firm performance is associated with a higher PPS.

ROA and Tobin's Q are both positively correlated to value of donations and number of candidates supported, at a 5% significance level. So, CEOs at a company with greater growth opportunities and performance are positively associated with greater political contribution. Value of donations and number of candidates supported is also positively correlated with firm size at a 5% significance level, as expected since CEO compensation is also positively correlated with firm size. Gender dummy variable is not significantly correlated to any of the other included variables. A possible explanation is that CEOs are for the greatest share of the male gender.

4.2 OLS Regression analysis

An OLS regression analysis was executed based on equation (4) to examine the dependence of a CEOs compensation on its political connections. This regression analysis comprises 1546 observations. Table 4 presents the results of the regression analysis. The dependent variable, a CEOs compensation, is measured by looking at total compensation of a CEO (TDC1). To test the first hypothesis, I used the natural logarithm of TDC1 as the dependent variable. Hereby, I first clustered the standard errors at CEO level. Observations with the same CEO across the different years (1996-2006) are taken into consideration when doing the OLS regression. The independent variables are the natural logarithm of value of donations and the natural logarithm of number of candidates supported. The natural logarithm of the dependent and main independent variables are taken for the convenience of interpretation of results and to make the dataset distribution more normal. In addition, I controlled for Firm size, leverage, Tobin's Q, ROA, firms age, CEO age, CEO tenure, CEO gender, director interlock. Also, I included industry and year fixed effects.

The first model in the OLS regression, with industry and year fixed effects, has an adjusted-squared of 0.459 indicating that 45.9% of the variance of the dependent variable studied is explained by the variance of the independent variables. The natural logarithm of the value of donation made by a CEO is significant at 1% level. As expected, it has a positive association with the compensation of a CEO. The coefficient is equal to 0.162, implying that a 1% increase in a donation made by a CEO in a certain year to a certain candidate will lead to an increase in compensation of 0.162%. This gives support for Hypothesis 1. A possible interpretation of this finding is that a CEO who donates a greater amount receives more beneficial treatment in the political environment. It can benefit the firm, resulting in a greater compensation for the CEO.

In contrary to expectations, the natural logarithm of the number of supported candidates is not significant. The coefficient of the number of candidates supported is equal to 0.007. The sign of the coefficient is positive, but it is of relatively low magnitude. This does not support hypothesis 1, since number of supported candidates is also a metric for degree political connections of a CEO. A possible explanation can be that supporting more than 1 candidate has the same effect as supporting 1 political candidate. So, an increase in the number of candidates supported does not influence compensation of a CEO. A different explanation can be, that the number of supported candidates does not measure the level of political connections a CEO has and in turn no significant effect on the compensation level of a CEO.

Firm size is also significant at a 1% level. It is positively associated to TDC1, the coefficient is equal to 0.401 implying a 1% increase in the total book value of assets is equal to 0.401% increase in total compensation of a CEO. Firm size has a greater effect on TDC1 than value of donation. It is in line with the results from the correlation table, where TDC1 was most positively correlated with firm size. Tobin's Q is not significantly associated with TDC1, in line with the correlation matrix where they were not significantly correlated. The ROA is significant at a 1% level and the coefficient is positive. The coefficient equal to 2.372 suggest that a 1% increase in ROA results in approximately a 9.7% increase in TDC1[2]. Leverage is not significantly associated to TDC1. A possible explanation for leverage not being significant can be that all observed companies have a relatively low leverage. All firm specific variables have a coefficient with a positive sign, as was expected following the existing literature (Hartzell and Starks, 2003; Cadman et al. , 2010; Almazan et al., 2005).

CEO age and tenure are significant at a 1% level. The coefficient of CEO tenure is negative. A unit increase in CEO age is associated with approximately 3.25% increase in TDC1. A unit increase in CEO tenure is associated with approximately 3.05 % decrease in TDC1. Regarding CEO tenure this can be the case, existing literature has found ambiguous results regarding the relation between CEO tenure and firm performance, which in turn influences CEO compensation (Evans et al., 2010; Alutto&Hrebinial, 1975; Miller 1991). CEO age has a positive coefficient, a possible explanation is that older CEOs may have more experience, and are therefore compensated relatively higher. CEO gender dummy is not significant, in line with the results from the correlation matrix. This is probably the case due to nearly all CEOs included in sample being of male gender. Director interlock is significant at a 10% level and the coefficient is negative, implying that if a CEO is interlocked the total compensation of a CEO will decrease. This is not in line with existing literature. For example, Hallock (1997) found interlocked firms to be associated with higher executive pay.

[2] The effect of an independent variable on a dependent variable of which the natural log is taken is calculated as follows: ((e^coefficient) – 1) * 100 = x. The answer (x) is the relative change in the dependent variable as a result of a unit increase in the independent variable. In the case of ROA, a 1% increase in ROA is equal to a 0.01 unit increase in ROA. Thus, the x is multiplied by 0.01 to understand the effect of a 1% increase in ROA on Ln (TDC1).

The results for the second model in table 4 is the same regression excluding firm and industry effects. Overall, the results are similar. However, the adjusted R-squared is higher when including industry and year fixed effects. Leverage and Tobin's Q become significant, and Director interlock becomes insignificant. Except for number of candidates supported, all the coefficient signs remain the same.

Table 5 demonstrates the results of an OLS regression analysis based on equation (4) to examine the dependence of a CEOs compensation on its political connection. Different from table 4, the CEO compensation is measured using the natural logarithm of PPS as the dependent variable. The first model includes firm and industry fixed effects. It has an adjusted R-squared of 0.114 indicating that 11.4% of the variance of the dependent variable studied is explained by the variance of the independent variables. The natural logarithm of the value of donation made by a CEO is significant at a 5% level. The sign of the coefficient is positive, this provides support for hypothesis 2. The coefficient is equal to 0.258, implying that a 1% increase in total value of a CEO donation is associated with an increase of 0.258% in the amount of dollars a CEO receives for each extra $1000 of shareholder value. A possible interpretation is; a greater level of political connection is related to a CEO having a compensation scheme more dependent on a firm's performance indicators. This provides support for hypothesis 2.

The natural logarithm of the number of supported candidates is not significant. The coefficient has a negative sign, equal to -0.016. This is in contrary to expectations according to hypothesis 2. If the coefficient was significant, it would have implied that a 1% increase in number of candidates supported is associated with a 0.016% decrease in amount of dollars a CEO receives for each extra $1000 of shareholder value. The magnitude of the coefficient is relatively low (nearly zero) and insignificant. Equally to the results of table 4, a possible explanation for the weak relation is that supporting more than 1 candidate has the same effect as supporting 1 political candidate. So, an increase in the number of candidates supported does not influence compensation of a CEO. A different explanation can be, that the number of supported candidates does not measure the level of political connections of a CEO and in turn it has no significant effect on the compensation level of a CEO. Furthermore, in comparison to table 4, the coefficient sign became negative. An explanation can be that supporting multiple candidates is seem as an indication of a greater degree of political connections by the board of directors. This makes the CEO more valuable, and in turn the CEO has more bargaining power to have a compensation less reliant on performance indicators of the firm resulting in a lower PPS.

Furthermore, ROA and firm size are significant at a 1% level. The coefficient of ROA is equal to -6.165 meaning that a 1% increase in ROA is associated with approximately a 1% decrease in the amount of dollars a CEO receives for each extra $1000 of shareholder value. The coefficient of firm size is equal to -0.603 meaning that a 1% unit increase in firm size is associated with a 0.603% decrease in the amount of dollars a CEO receives for each extra $1000 of shareholder value. Equally to table 4, CEO gender, leverage and Tobin's Q are not significant. CEO tenure is significant at a 1% level with a coefficient equal to -0.037. So, a 1 unit increase in

CEO tenure is associated with approximately 3.6% decrease in the amount of dollars a CEO receives for each extra $1000 of shareholder value.

In comparison to table 4, the significant independent variables change sign (CEO age, firm size and ROA). The coefficient becomes negative when using PPS as a dependent variable instead of TDC1. A possible explanation can be that suitable CEOs for firms of greater size and ROA, may be relatively talented and more valuable. Therefore they have more bargaining power for a compensation contract which is less dependent on performance indicators. This results in a relatively small PPS. CEO tenure has a negative association to PPS with a coefficient of -0.037. So, a 1 unit increase in CEO tenure is associated with a 3.6% decrease in the amount of dollars a CEO receives for each extra $1000 of shareholder value. Tenure can be seen as an indicator of managerial power (Evans et al., 2010) and thus, the results imply that an increase in power is associated with a decrease in PPS.

The second model of table 5 excludes the firm and industry fixed effects. The adjusted R-squared is lower than in model 2. Another difference is that Tobin's Q becomes significant, but the sign of the coefficient remains the same. The coefficient of the number of candidates supported, leverage and director interlock change sign, but for other variables it remains the same.

4.3 Cross-sectional test

It can be expected that the geographical proximity between the location of the CEOs firm and political candidate supported by the CEO, can strengthen the magnitude of the relation between CEO compensation and a CEOs political connection. If the CEO is located near the political candidate it supports, it can be expected that the CEO can more easily form a political connection. If the CEO and political candidate are in the same state, they can more easily interact in different forms than through a political donation. Therefore, I execute an independent t-test. The grouping variable indicates whether the CEOs firm is located in the same state as the political candidate supported by the CEO or not. The test shows whether there are significant differences in the mean of PPS and TDC1 between the corresponding sub-groups of the sample as presented in table 6. Table 6 demonstrates that the difference in mean for PPS, is not significant. Also, the mean is higher for the subgroup in which the CEO and the political candidate are not located in the same state. Equal variances is not assumed, since the Levene's test was significant at a 10% level. Regarding TDC1, equal variances is not assumed. According to the Levene's test, the equal variance assumption can be rejected at a 1% significance level. Table 6 demonstrates that there is a significant difference in means at a 1% level. The absolute mean difference is equal to approximately $2,433.4 in thousands. The mean is higher for the subgroup where the CEOs firm is not located in the same state as the supported candidate. These results are not as expected, a possible explanation is that the sample size is too small to provide results representative of the population. The sample sizes of the sub groups are 1080 and 466 observations. An alternative explanation, can be that due to digitalization, the geographical proximities are not as influential as expected.

To provide further evidence on this matter, an OLS regression analysis was realized on the two subgroups based on equation (4)[3]. Table 7 demonstrates the results for 2 subgroups with TDC1 as dependent variable. The first model, in which the CEOs firm is located in same state as the supported political candidate, has an adjusted R-squared equal to 0.453. The total amount of donation is significant only for the second model of table 7. The second model, in which they are not located in same state, has a higher adjusted R-squared than the first model. The main independent variables coefficients are of greater magnitude than first model. Equally to the results of the independent t-test, the results are not as expected. Table 8 demonstrates regression results for 2 subgroups with PPS as dependent variable. Equally, the main independent variables are not significant, except for total amount of donation in second model. Also, the coefficient magnitude of total amount of donation is greater in the second model. Also the adjusted R-squared is greater. A possible explanation is that sample sizes are too small, in particular in the first models of table 7 and 8 where the sample size equals 466 observations.

5. Conclusion and discussion

5.1 Conclusion and implication

The research question of this paper is the following:

Do CEOs who donate to politicians benefit from their political connection in terms of compensation?

The purpose of this study was to examine whether a relationship could be identified between an executive's compensation and their political connections. This in order to understand the motives of CEOs for donating to political campaigns and analyse whether the political environment can be influenced in the benefit of a company.

The first hypothesis was the following '*A greater degree of political connections is associated with a relatively higher CEO compensation'.* The findings show a political connection, in terms of the value of a political donation made by a CEO, positively associated with CEO compensation. From the OLS regression we can conclude that in this sense, we fail to reject hypothesis 1. A possible interpretation is that CEOs with political connections are seen as more valuable than CEOs with no political connection and are therefore better compensated. This is in line with market-value hypothesis as discussed by Frydman (2007). The market-value hypothesis states that skills, such as having a political capital, makes a CEO more valuable in terms of compensation as determined by market forces. Political capital can be financially beneficial for a firm in terms of for example tax, tariffs and regulatory requirements (Goldman et al., 2009; Bunkanwanicha&Wiwattanakantang, 2009; Faccio, 2006). The findings also demonstrate a positive and significant relation between the compensation of a CEO and firm performance related control variables (e.g., ROA,). Additionally, political capital is an asset that

[3] The gender dummy variable is not included, since in one of the subgroups all of the CEOs were of male gender. Namely, for the total sample 99.99% of the CEOs are of male gender,

cannot easily be transferred to other executives increasing the importance of the CEO (Nahapiet&Ghoshal, 1998). In this sense, a CEOs political connection is important and it therefore makes it valuable to relate it to CEO compensation. A political connection in terms of the number of candidates supported by a certain CEO in the observed year is not significantly related. Also, the economic significance is low (coefficient nearly zero) and in this sense hypothesis 1 is not supported. A possible interpretation of this result is that supporting more than 1 candidate has the same effect as supporting 1 political candidate. An alternative explanation is that the number of candidates supported does not represent the degree of political connections of a CEO.

The second hypothesis of this study was as follow '*The total amount of political contributions made by a CEO is positively related to the pay-performance sensitivity'.* The findings show that the total amount of political donation made by a CEO is significantly related to the pay-performance sensitivity (PPS) and the coefficient has a positive sign. From this aspect we can conclude that hypothesis 2 is supported. The number of candidates supported by a CEO through political donations is not significantly associated with PPS. So, in this sense hypothesis 2 is not supported, since more candidates supported by a CEO leads to a decrease in amount of dollars a CEO receives for each extra $1000 of shareholders value. CEOs with more managerial power have the capability to bargain for a compensation scheme consisting for the largest share of a guaranteed compensation (e.g., salary) and thus not dependent on firm performance. The findings of the OLS regression demonstrate that CEO tenure has a negative and significant relation with PPS and thus supporting this possible explanation. Moreover, the coefficient is relatively small indicating a weak relation. An explanation for a weak relation is that supporting more than 1 candidate has the same effect as supporting 1 political candidate.

Lastly, a cross-sectional test was realized to examine whether the geographical proximity influences the relation between CEO political connection and CEO compensation. However, the results indicated that a CEOs firm located in the same state as the supported political candidate does not strengthen the relation between CEO political connection and CEO compensation. It can be due to relatively small sample sizes, limiting the true representation of the population.

To conclude, there is a significant relation identified between political connections of a CEO and CEO compensation. The findings show a positive relation of total value of political donation and CEO compensation, indicating that CEOs who are more politically involved also receive a higher compensation. This shows the possibility that political connections can have a significant effect on wealth of a CEO. However, it is not possible to conclude a causal relation from the findings of this study. It does, however, show the possibility of a causal relation and it is therefore of relevance to further examine this relation. Additionally, existing literature suggest that a political connection can have financial benefits for a company and in this sense, it would be of value for the board of directors to take into account the political capital of a CEO when structuring their compensation scheme. Based on these findings, it can be suggested that the board of directors can use value of annual political donations a CEO makes, to screen the political capital of the CEO. Screening is used ex -ante of signing a contract to decrease the

information asymmetry between the board of directors and CEO (Akerlof, 1970). Political connections can serve as a mitigating role in the principal-agency problem by reducing the information asymmetry. Hypothesis 2 was supported in terms of the value of political donations made by a CEO. Findings shows a significant relation between political connections, in terms of total value of political donation, and PPS. It suggests that a CEO is motivated to make political donations as an investment to create political capital. Indirectly it can also suggest that political donations positively impact the performance of a firm and in turn the total compensation of a CEO. Thus, it can be advised to CEOs to create political connections as it may be valuable in terms of compensation. Lastly, the findings suggest that the number of supported candidates by a CEO does not have a significant relation with a CEOs compensation, in terms of total compensation or PPS.

5.2 Limitations

First, as previously discussed there is the risk of reverse causality due to wealth effects. There is the possibility that a CEO is incentivized by its compensation to make political donations instead of the other way around. However, this risk is reduced due to that the average amount of a political donation is small in comparison to total average compensation a CEO receives annually.

Second, there is the probability that there are other factors, not controlled for, which influence the political connections and the compensation of a CEO. It can be, for example, that the firm of the observed CEO is politically constrained. In this sense, it is necessary for the CEO to regularly interact with political figures to create political connections. At the same time, political constraints, such as regulations, can also affect the compensation of a CEO as was found by Joskow et al. (1996). This can create an association between the political connections and the compensation of a CEO. However, it does not necessarily have to mean that CEO compensation is influenced by the political connection of a CEO. It can be that both variables are influenced by an unobserved factor not controlled for in the OLS regression. This problem was reduced by including control variables on CEO, firm and board level. However, there are other factors not accounted for either due to unavailability of data or due to unawareness of the factor.

Third, this data sample is relatively small which increases the risk of a biased result. This is primarily due to that the matching process between FEC dataset and other datasets (Execucomp, CRSP, ISS and OptionMetrics) do not have a common variable. The common variables are the year of observation and the name of the executive. However, the names are not structured equally and sometimes not written the same (e.g., sometimes name only written with initials). This made the matching process more complicated and it resulted in a relatively small sample compared to the starting sample extracted from FEC. Additionally, CEO individual contributions are made voluntarily and thus there is the risk of selection bias.

Fourth, the external validity of this research is limited. The differences across countries in political systems regarding providing political donations does not allow these results to be generalized for other countries than the United States.

6. References

Abowd, J. M., & Kaplan, D. S. (1999). Executive compensation: six questions that need answering. The Journal of Economic Perspectives, 13(4), 145–168.

Agrawal, A., & Knoeber, C. R. (2001). Do some outside directors play a political role?*. The Journal of Law & Economics, 44(1), 179–198.

Akerlof, G. A. (1970). The market for "lemons": quality uncertainty and the market mechanism. The Quarterly Journal of Economics, 84(3), 488–500.

Almazan, A., Hartzell, J. C., & Starks, L. T. (2005). Active institutional shareholders and costs of monitoring: evidence from executive compensation. Financial Management, 34(4), 5–34.

Ansolabehere, S., de Figueiredo, J. M., & Snyder, J. M. (2003). Why is there so little money in u.s. politics? The Journal of Economic Perspectives, 17(1), 105–130.

Baker, G. P., Jensen, M. C., & Murphy, K. J. (1988). Compensation and incentives: practice vs. theory. The Journal of Finance, 43(3), 593–593.

Berle, A. A., & Means, G. C. (1932). The modern corporation and private property. Macmillan Company.

Bertrand, M., & Schoar, A. (2003). Managing with style: the effect of managers on firm policies. The Quarterly Journal of Economics, 118(4), 1169–1208.

Boubakri, N., Cosset, J.-C., & Saffar, W. (2008). Political connections of newly privatized firms. Journal of Corporate Finance, 14(5), 654–673. https://doi.org/10.1016/j.jcorpfin.2008.08.003

Boubakri, N., Guedhami, O., Mishra, D., & Saffar, W. (2012). Political connections and the cost of equity capital. Journal of Corporate Finance, 18(3), 541–559. https://doi.org/10.1016/j.jcorpfin.2012.02.005

Bunkanwanicha, P., & Wiwattanakantang, Y. (2009). Big business owners in politics. The Review of Financial Studies, 22(6), 2133–2168. https://doi.org/10.1093/rfs/hhn083

Cadman, B., Carter, M. E., & Hillegeist, S. (2010). The incentives of compensation consultants and ceo pay. Journal of Accounting & Economics, 49(3), 263–263. https://doi.org/10.1016/j.jacceco.2009.03.002

Cao, S., Zheng, X., & Zhang, J. (2019). Challenge of political globalization. Time and Society, 28(2), 828–837. https://doi.org/10.1177/0961463X17716550

Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. The Financial Review, 38(1), 33–53.Claessens, S., Feijen, E., & Laeven, L. (2008). Political connections and preferential access to finance: the role of campaign contributions. Journal of Financial Economics, 88(3), 554–554.

Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. American Journal of Sociology, 94, S95–S120. http://www.jstor.org/stable/2780243

Conyon, M. J., & Murphy, K. J. (2000). The prince and the pauper? ceo pay in the united states and united kingdom. The Economic Journal, 110(467), 671.

Cooper, M. J., Gulen, H., & Ovtchinnikov, A. V. (2010). Corporate political contributions and stock returns. The Journal of Finance, 65(2), 687–687.

Core, J. E., Holthausen, R. W., & Larcker, D. F. (1999). Corporate governance, chief executive officer compensation, and firm performance. Journal of Financial Economics, 51(3), 371–406.

Di Giuli, A., & Kostovetsky, L. (2014). Are red or blue companies more likely to go green? politics and corporate social responsibility. Journal of Financial Economics, 111(1), 158–158.

Duffhues, P., & Kabir, M. R. (2008). Is the pay–performance relationship always positive?: evidence from the netherlands. Journal of Multinational Financial Management, 18(1), 45–60.

Evans, J. H., Nagarajan, N. J., & Schloetzer, J. D. (2010). CEO turnover and retention light: Retaining former CEOs on the board. Journal of Accounting Research, 48(5), 1015–1047. https://doi.org/10.1111/j.1475-679X.2010.00383.x

Hutton, I., Jiang, D., & Kumar, A. (2014). Corporate policies of republican managers. The Journal of Financial and Quantitative Analysis, 49(5-6), 1279–1310.

Faccio, M. (2006). Politically connected firms. American Economic Review, 96(1), 369–386. https://doi.org/10.1257/000282806776157704

Faccio, M. (2010). Differences between politically connected and nonconnected firms: a cross-country analysis. Financial Management, 39(3), 905–927.

Faccio, M., Masulis, R. W., & McConnell, J. J. (2006). Political connections and corporate bailouts. The Journal of Finance, 61(6), 2597–2635.

Fisman, R. (2001). Estimating the value of political connections. The American Economic Review, 91(4), 1095–1102.

Flap, H.D. & de Graaf, N.D. (1986) Social capital and attained occupational status. Netherlands Journal of Sociology, 22, 145-161.

Francis, B. B., Hasan, I., Sun, X., & Wu, Q. (2016). Ceo political preference and corporate tax sheltering. Journal of Corporate Finance, 38, 37–53. https://doi.org/10.1016/j.jcorpfin.2016.03.003

Frydman, C. (2007). The evolution of the market for corporate executives across the twentieth century. The Journal of Economic History, 67(2), 488–492.

Gabaix, X., & Landier, A. (2006). Why has ceo pay increased so much? Working Paper Series, 12365(12365).

Gabaix, X., Landier, A., & Sauvagnat, J. (2014). Ceo pay and firm size: an update after the crisis. The Economic Journal, 124(574), 59.

Garen, J. E. (1994). Executive compensation and principal-agent theory. Journal of Political Economy, 102(6), 1175–1199.

Girma, S., Thompson, S., & Wright, P. W. (2007). Corporate governance reforms and executive compensation determination: evidence from the UK. The Manchester School, 75(1), 65–81. https://doi-org.eur.idm.oclc.org/10.1111/j.1467-9957.2007.01003.x

Goldman, E., Rocholl Jörg, & So, J. (2009). Do politically connected boards affect firm value? The Review of Financial Studies, 22(6), 2331–2360. https://doi.org/10.1093/rfs/hhn088

Hall, B., & Liebman, J. (1998). Are ceos really paid like bureaucrats? The Quarterly Journal of Economics, 113(3), 653–691.

Hall, R. L., & Wayman, F. W. (1990). Buying time: moneyed interests and the mobilization of bias in congressional committees. The American Political Science Review, 84(3), 797–820.

Hallock, K. F. (1997). Reciprocally interlocking boards of directors and executive compensation. The Journal of Financial and Quantitative Analysis, 32(3), 331–344.

Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: the organization as a reflection of its top managers. The Academy of Management Review, 9(2), 193–193. https://doi.org/10.2307/258434

Hartzell, J. C., & Starks, L. T. (2003). Institutional investors and executive compensation. The Journal of Finance, 58(6), 2351–2374.

Hendrikse, G. (2003). Economics and management of organizations : co-ordination, motivation and strategy. McGraw-Hill.

Hillman, A. J. (2005). Politicians on the board of directors: do connections affect the bottom line? Journal of Management, 31(3), 464.

Hitt, M. A., Hoskisson, R. E., & Kim, H. (1997). International diversification: effects on innovation and firm performance in product-diversified firms. The Academy of Management Journal, 40(4), 767–798

Hölmstrom Bengt. (1979). Moral hazard and observability. The Bell Journal of Economics, 10(1), 74–91.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Jensen, M. C., & Murphy, K. J. (1990). Performance pay and top-management incentives. Journal of Political Economy, 98(2), 225–264.

John, T. A., & John, K. (1993). Top-management compensation and capital structure. The Journal of Finance, 48(3), 949–974.

Johnson, S., & Mitton, T. (2003). Cronyism and capital controls: evidence from malaysia. Journal of Financial Economics, 67(2), 351–382.

Joskow, P. L., Rose, N. L., & Wolfram, C. D. (1996). Political constraints on executive compensation: evidence from the electric utility industry. The Rand Journal of Economics, 27(1), 165–182.

Kaplan, S. N., & Zingales, L. (1997). Do investment-cash flow sensitivities provide useful measures of financing constraints? The Quarterly Journal of Economics, 112(1), 169–215.

Kim, C. F., & Zhang, L. (2016). Corporate political connections and tax aggressiveness. Contemporary Accounting Research, 33(1), 78–114.

Lang, L. H. P., & Stulz, R. M. (1994). Tobin's q, corporate diversification, and firm performance. Journal of Political Economy, 102(6), 1248.

Leuz, C., & Oberholzer-Gee, F. (2006). Political relationships, global financing, and corporate transparency: evidence from indonesia*. Journal of Financial Economics, 81(2), 411–411.

McConnell, J. J., & Servaes, H. (1990). Additional evidence on equity ownership and corporate value (Ser. Reprint series / institute for research in the behavioral, economic, and management sciences, krannert graduate school of management, purdue university, no. 1099). Krannert Graduate School of Management, Purdue University.

Mehran, H. (1995). Executive compensation structure, ownership, and firm performance. Journal of Financial Economics, 38(2), 163–163.

Merton, R. C. (1973). Theory of rational option pricing. The Bell Journal of Economics and Management Science, 4(1), 141–183.

Miller, D. (1991). Stale in the saddle: ceo tenure and the match between organization and environment. Management Science, 37(1), 34–52. https://doi.org/10.1287/mnsc.37.1.34

Morck, R. K., Strangeland, D. A., & Yeung, B. (1998). Inherited wealth, corporate control and economic growth: the canadian disease? Working Paper Series, 6814(6814)

Murphy, K.J. (1999) Executive Compensation. In: Ashenfelter, O. and Card, D., Eds., Handbook of Labor Economics, Elsevier Science North, Holland, 2485-2563. https://doi.org/10.1016/S1573-4463(99)30024-9.

Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. The Academy of Management Review, 23(2), 242–266.

Nyeadi, J. D., Sare, Y. A., Aawaar, G., & McMillan, D. (2018). Determinants of working capital requirement in listed firms: empirical evidence using a dynamic system gmm. Cogent Economics & Finance, 6(1), 1558713–1558713. https://doi.org/10.1080/23322039.2018.1558713

Piotroski, J. D., & Zhang, T. (2014). Politicians and the ipo decision: the impact of impending political promotions on ipo activity in china. Journal of Financial Economics, 111(1), 111–111.

Ortiz-Molina, H. (2007). Executive compensation and capital structure: the effects of convertible debt and straight debt on ceo pay*. Journal of Accounting & Economics, 43(1), 69–69. https://doi.org/10.1016/j.jacceco.2006.09.003

Ozkan, N. (2011). Ceo compensation and firm performance: an empirical investigation of uk panel data. European Financial Management, 17(2), 260–285. https://doi.org/10.1111/j.1468-036X.2009.00511.x

Salancik, G. R., & Pfeffer, J. (1980). Effects of ownership and performance on executive tenure in u.s. corporations. The Academy of Management Journal, 23(4), 653–664.

Shavell, S. (1979). On moral hazard and insurance. The Quarterly Journal of Economics, 93(4), 541–562.

Sheng, S., Zhou, K. Z., & Li, J. J. (2011). The effects of business and political ties on firm performance: evidence from china. Journal of Marketing, 75(1), 1–15.

Shleifer, A., & Vishny, R. W. (1994). Politicians and firms. The Quarterly Journal of Economics, 109(4), 995–1025.

Smith, C. W., & Watts, R. L. (1992). The investment opportunity set and corporate financing, dividend, and compensation policies. Journal of Financial Economics, 32(3), 263–263

Smith, N., Smith, V., & Verner, M. (2006). Do women in top management affect firm performance?a panel study of 2,500 danish firms. International Journal of Productivity and Performance Management, 55(7), 569–593.

Tallman, S., & Li, J. (1996). Effects of international diversity and product diversity on the performance of multinational firms. The Academy of Management Journal, 39(1), 179–196.

Useem, M., & Karabel, J. (1986). Pathways to top corporate management. American Sociological Review, 51(2), 184–200.

Yermack, D. (1995). Do corporations award ceo stock options effectively? Journal of Financial Economics, 39(2), 237–269. https://doi.org/10.1016/0304-405X(95)00829-4

Zweigenhaft, R. L. (1992). The application of cultural and social capital: a study of the 25th year reunion entries of prep school and public school graduates of yale college. Higher Education, 23(3), 311–320.

7. Tables

Table 1: Sample selection and Sample Distribution

Panel A: Sample selection procedure of the political donation sample

	N	
Sampling procedure	Cases	#CEOs
Individual (hard and soft) contributions to candidates from 1996-2006 with NAME	9,642,849	3,981,957
Less: Firms without data in Execucomp and ISS	(9,635,028)	(3,981,070)
CEO individual contributions to candidates from 1996-2006 with GVKEY and fiscal year	7,821	887
Less: Firms without data in CRSP/Compustat merged	(1,702)	(198)
CEO individual contributions to candidates from 1996-2006 with GVKEY and fiscal year	6,119	689
Less: CEOs who did not donate to either house, senate or presidential campaign	(3,086)	(131)
CEO individual contributions to candidates from 1996-2006 with GVKEY and fiscal year	3,033	558
Less: Observations with missing values	(1,183)	(216)
CEO individual contributions to candidates from 1996-2006 with GVKEY and fiscal year	1,850	342
Less: Duplicates in CEO individual campaign contributions	(304)	(0)
Final CEO individual contributions sample	1546	342

Panel A of this table reports the sample selection procedure.

Table 2: Descriptive Statistics

Variables	N	Mean	SD.	25th Pctl.	Median	75th Pctl.
Firm size	1,546	8.651	1.538	7.657	8.503	9.647
Leverage	1,546	0.220	0.146	0.112	0.216	0.323
Tobin's Q	1,546	1.369	0.209	1.230	1.370	1.513
ROA	1,546	0.184	0.101	0.115	0.176	0.243
Firm's age	1,546	23.512	13.496	11.000	24.000	36.000
CEO Age (years)	1,546	56.720	7.422	52.000	57.000	61.000
CEO Tenure (years)	1,546	9.196	9.807	2.000	6.000	14.000
CEO Gender (dummy 1= male)	1,546	0.999	0.025	1.000	1.000	1.000
Director Interlock (dummy 1=interlock)	1,546	0.040	0.205	0.000	0.000	0.000
Total compensation ($ thousands)	1,546	9,063.436	10,763.698	2,360.785	5,054.004	11,735.633
Pay-performance sensitivity	1,546	205.375	688.275	0.000	2.122	53.444
Value of donations	1,546	13,985.364	15,507.614	4,250.000	8,350.000	16,500.000
Number of candidates supported	1,546	3.390	2.892	1.000	2.000	4.000

Table 2 reports descriptive statistics for all test variables. Detailed variable definitions are provided in Appendix A.

Table 3: Correlation matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) *Ln (Firm size)*												
(2) *Leverage*	**.135****											
(3) *Tobin's Q*	**-.393****	**-.651****										
(4) *ROA*	**-.273****	**-.310****	**.461****									
(5) *Firm's age*	**.402****	**.218****	-.**257****	-.**186****								
(6) *CEO Age (years)*	**.053****	**-.**001	**-.**044	-.**106****	**.082****							
(7) *CEO Tenure (years)*	-.**232****	**-.**028	**.0181****	**.103****	-.**185****	**.426****						
(8) *CEO Gender (dummy 1= male)*	.028	.022	.004	.032	.024	.030	.011					
(9) *Director Interlock (dummy 1=interlock)*	-.044	.003	.043	.000	**.082****	**-.148****	-.035	.005				
(10) *Ln* (*Total compensation) ($ thousands)*	**.580****	**-.062***	**-.133****	-.004	**.299****	**.098****	**-.175****	.038	-.002			
(11) *Ln* (*Pay-performance sensitivity)*	-.**122****	.044	-.042	-.**097****	-.005	**-.103****	**-.119****	.042	.017	.004		
(12) *Ln (value of donations)*	**.210****	**.067****	**.185****	**.156****	-.025	.019	**.202****	.049	**.156****	**.250****	-.015	
(13) *Ln* (*Number of candidates supported)*	**.090****	**-.170****	**.192****	**.180****	-.003	.-.004	**.171****	.031	**.147****	**.121****	.002	**.633****

Table 3 presents Pearson correlation between the key variables. Detailed variable definitions are provided in Appendix A. Bold correlations with '*' are significant at 0.05 level (2-tailed). Bold correlations with '**' are significant at 0.01 level (2-tailed).

Table 4. The impact of Political connections on total executive compensation

Dependent variable =	LN (TDC1)	LN (TDC1)
	(1)	(2)
Ln (value of donations)	**0.162*** **	**0.176*** **
	(5.199)	(5.831)
Ln (Number of candidates supported)	0.007	-0.054
	(0.167)	(-1.304)
Firm size	**0.401*** **	**0.434*** **
	(18.706)	(21.570)
Leverage	0.346	**0.928*** **
	(1.475)	(4.151)
Tobin's Q	0.267	**0.670*** **
	(1.482)	(3.814)
ROA	**2.372*** **	**1.869*** **
	(8.415)	(6.834)
Firm's age (years)	**0.004***	**0.007*** **
	(1.712)	(3.344)
CEO Age (years)	**0.032*** **	**0.025*** **
	(8.293)	(6.555)
CEO Tenure (years)	**-0.031*** **	**-0.020*** **
	(-9.839)	(-6.533)
CEO Gender (dummy 1= male)	0.117	0.183
	(0.897)	(0.195)
Director Interlock (dummy 1=interlock)	**0.204***	0.043
	(1.691)	(0.354)
Constant	0.840	0.183
	(0.849)	(0.181)
Industry F.E.	Yes	No
Year FE	Yes	No
Observations	1546	1546
R-squared	0.470	0.410
Adj. R-squared	0.459	0.406

Table 4 presents the results from estimating the following OLS regression:

$$\text{Compensation}ti = \beta_0 + \beta_1 * \text{LN(Total\_absolute\_donation}jit) + \beta_2 * \text{LN(Total\_number\_candidates}it) + \beta_3 * \text{year} + \beta_4 * \text{industry} + \gamma * \text{control variables}ti + \varepsilon ti$$

The dependent variable "Compensationit" is measured by the natural log of total compensation (TDC1). Ln(value of donations) is the natural logarithm of the total amount of donations a CEO i made in year t per candidate j. Ln (number of candidates supported) is the natural logarithm of the number of candidates a CEO i supports in year t. Year and Industry are the fixed effects. The control variables include the natural logarithm of firm size, leverage, Tobin's Q, ROA, firms age, CEO age, CEO tenure, CEO gender dummy variable (1=male or else =0) and the Director interlock dummy variable (1=interlock or else =0). Standard errors clustered at CEO level. Estimated t-statistics are presented in parentheses. Detailed variable definitions are provided in Appendix A. Bold *, **, and *** indicate statistical significance of the coefficient at the 10%, 5% and 1% levels, respectively.

Table 5. The impact of Political connections on pay-performance sensitivity

Dependent variable =	LN (PPS)	LN (PPS)
	(1)	(2)
Ln (value of donations)	**0.258****	**0.263****
	(2.159)	(2.322)
Ln (Number of candidates supported)	-0.016	0.176
	(-0.099)	(1.131)
Firm size	**-0.603*****	**-0.592*****
	(-7.374)	(-7.862)
Leverage	0.600	-0.033
	(0.670)	(-0.040)
Tobin's Q	-0.323	**-1.169***
	(-0.470)	(-1.776)
ROA	**-6.165*****	**-5.006*****
	(-5.728)	(-4.885)
Firm's age (years)	0.012	0.008
	(1.509)	(1.104)
CEO Age (years)	**-0.028***	**-0.024***
	(-1.876)	(-1.719)
CEO Tenure (years)	**-0.037*****	**-0.054*****
	(-3.097)	(-4.844)
CEO Gender (dummy 1= male)	4.675	2.665
	(1.357)	(0.756)
Director Interlock (dummy 1=interlock)	-0.663	0.017
	(-1.442)	(0.038)
Constant	4.147	5.505
	(1.097)	(1.448)
Industry F.E.	Yes	No
Year FE	Yes	No
Observations	1546	1546
R-squared	0.131	0.069
Adj. R-squared	0.114	0.062

Table 5 presents the results from estimating the following OLS regression:

$$\text{Compensation}ti = \beta_0 + \beta_1 * \text{LN}(\text{Total\_absolute\_donation}jit) + \beta_2 * \text{LN}(\text{Total\_number\_candidates}sit) + \beta_3 * \text{year} + \beta_4 * \text{industry} + \gamma * \text{control variables}ti + \varepsilon ti$$

The dependent variable "Compensation*it*" is measured by the natural log of pay-performance sensitivity (PPS). Ln(value of donations) is the natural logarithm of the total amount of donations a CEO i made in year t per candidate j. Ln (number of candidates supported) is the natural logarithm of the number of candidates a CEO i supports in year t. Year and Industry are the fixed effects. The control variables include the natural logarithm of firm size, leverage, Tobin's Q, ROA, firms age, CEO age, CEO tenure, CEO gender dummy variable (1=male or else =0) and the Director interlock dummy variable (1=interlock or else =0). Standard errors clustered at CEO level. Estimated t-statistics are presented in parentheses. Detailed variable definitions are provided in Appendix A. Bold *, **, and *** indicate statistical significance of the coefficient at the 10%, 5% and 1% levels, respectively.

Table 6 Means comparison between CEOs firm and supporting candidate located same state and not located in the same state

	Mean Located same state (n=1080)	Mean Not located same state (n=466)	Mean absolute difference	P-value
PPS	174.084	218.876	44.792	0.215
TDC1	7,363.771	9,796.810	2,433.039	0.000

Table 6 reports the results of the independent sample t-test. The results from the Levene test are untabulated. The examined variables are Pay-performance sensitivity (PPS) and total compensation (TDC1). The weighted variable is whether the supported political candidate by a CEO and the corresponding CEOs firm are located in the same state or not.

Table 7. Total CEO compensation and geographical proximity of supported political candidates

Dependent variable =	LN (TDC1) (Same state) (1)	LN (TDC1) (Not same state) (2)
Ln (value of donations)	0.065	**0.179*** **
	(1.166)	(4.696)
Ln (Number of candidates supported)	-0.005	0.001
	(-0.062)	(0.010)
Firm size	**0.402*** **	**0.392*** **
	(10.993)	(14.913)
Leverage	-0.615	**0.729** **
	(-1.472)	(2.559)
Tobin's Q	0.011	**0.414***
	(0.035)	(1.851)
ROA	**2.552*** **	**2.268*** **
	(4.830)	(6.736)
Firm's age (years)	-0.002	**0.005** **
	(-0.703)	(1.996)
CEO Age (years)	**0.032*** **	**0.032*** **
	(4.749)	(6.757)
CEO Tenure (years)	**-0.026*** **	**-0.031*** **
	(-4.969)	(-7.659)
Director Interlock (dummy 1=interlock)	0.316	**0.253***
	(1.371)	(1.686)
Constant	**1.949** **	0.715
	(2.463)	(0.684)
Industry F.E.	Yes	Yes
Year FE	Yes	Yes
Observations	466	1080
R-squared	0.485	0.484
Adj. R-squared	0.453	0.470

Table 7 presents the results from estimating the following OLS regression:

$$\text{Compensation}ti = \beta_0 + \beta_1 * \text{LN(Total\_absolute\_donation}jit) + \beta_2 * \text{LN(Total\_number\_candidates}sit) + \beta_3 * \text{year} + \beta_4 * \text{industry} + \gamma * \text{control variables}ti + \varepsilon ti$$

The dependent variable "Compensation*it*" is measured by the natural log of total compensation (TDC1). Ln(value of donations) is the natural logarithm of the total amount of donations a CEO i made in year t per candidate j. Ln (number of candidates supported) is the natural logarithm of the number of candidates a CEO i supports in year t. Year and Industry are the fixed effects. The control variables include the natural logarithm of firm size, leverage, Tobin's Q, ROA, firms age, CEO age, CEO tenure, CEO gender dummy variable (1=male or else =0) and the Director interlock dummy variable (1=interlock or else =0). Standard errors clustered at CEO level. Estimated t-statistics are presented in parentheses. Detailed variable definitions are provided in Appendix A. Bold *, **, and *** indicate statistical significance of the coefficient at the 10%, 5% and 1% levels, respectively.

Table 8. Pay-performance sensitivity and geographical proximity of supported political candidates

Dependent variable =	LN (PPS) (Same state)	LN (PPS) (Not same state)
	(1)	(2)
Ln (value of donations)	0.142	**0.313****
	(0.626)	(2.198)
Ln (Number of candidates supported)	-0.123	0.052
	(-0.385)	(0.267)
Firm size	**-0.547*****	**-0.639*****
	(-3.650)	(-6.482)
Leverage	-1.139	1.091
	(-0.665)	(1.021)
Tobin's Q	**-2.822****	0.922
	(-2.282)	(1.099)
ROA	**-6.008*****	**-6.735*****
	(-2.771)	(-5.335)
Firm's age (years)	0.005	**0.019***
	(0.343)	(1.915)
CEO Age (years)	-0.040	-0.024
	(-1.445)	(6.757)
CEO Tenure (years)	-0.010	**-0.046*****
	(-0.458)	(-3.099)
Director Interlock (dummy 1=interlock)	1.073	**-1.442*****
	(1.133)	(0.008)
Constant	**14.002*****	1.801
	(4.312)	(0.460)
Industry F.E.	Yes	Yes
Year FE	Yes	Yes
Observations	466	1080
R-squared	0.165	0.141
Adj. R-squared	0.114	0.118

Table 8 presents the results from estimating the following OLS regression:

$$\text{Compensation}ti = \beta_0 + \beta_1 * \text{LN}(\text{Total\_absolute\_donation}jit) + \beta_2 * \text{LN}(\text{Total\_number\_candidates}sit) + \beta_3 * \text{year} + \beta_4 * \text{industry} + \gamma * \text{control variables}ti + \varepsilon ti$$

The dependent variable "Compensation*it*" is measured by the natural log of pay-performance sensitivity (PPS). Ln(value of donations) is the natural logarithm of the total amount of donations a CEO i made in year t per candidate j. Ln (number of candidates supported) is the natural logarithm of the number of candidates a CEO i supports in year t. Year and Industry are the fixed effects. The control variables include the natural logarithm of firm size, leverage, Tobin's Q, ROA, firms age, CEO age, CEO tenure, CEO gender dummy variable (1=male or else =0) and the Director interlock dummy variable (1=interlock or else =0). Standard errors clustered at CEO level. Estimated t-statistics are presented in parentheses. Detailed variable definitions are provided in Appendix A. Bold *, **, and *** indicate statistical significance of the coefficient at the 10%, 5% and 1% levels, respectively.

Appendix

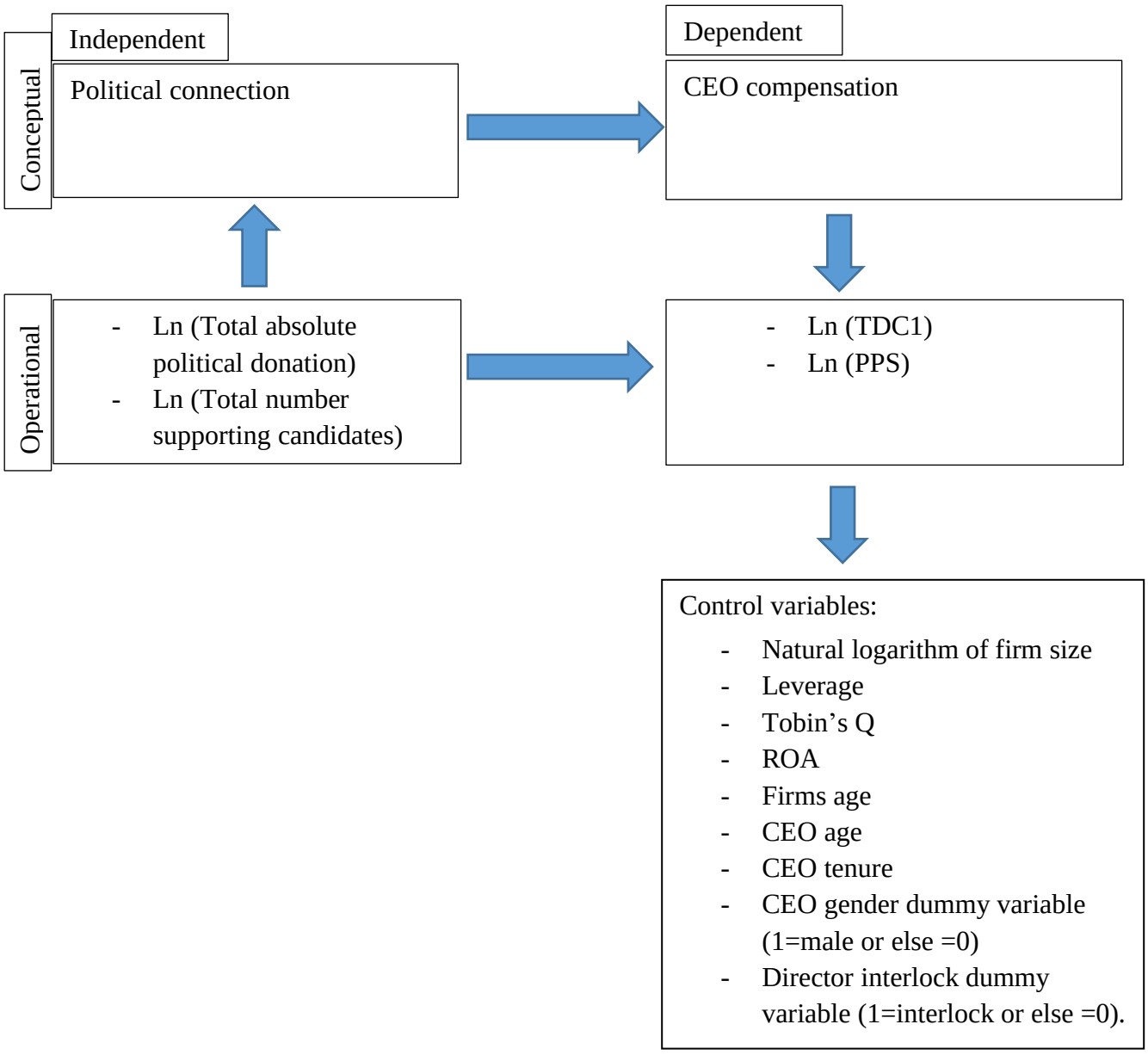
Appendix A. Variable Definitions

Variable	Definition
	Variables used in main analysis
Firm size	Firm size, measured by taking the natural logarithm from the total book value of assets. (Source: CRSP/Compustat)
Firm age	The age of the firm, measure as the fiscal year of the observation minus the year the firm first appeared on CRSP. (Source: CRSP/Compustat)
Leverage	The ratio of the end of fiscal year total debt to end of fiscal year total assets. Constructed by adding up the short and long term total debt, and then dividing the sum by total assets. (Sources: CRSSP/Compustat)
Tobin's Q	The ration between the market value of the firm over the replacement cost of its assets. Following Kaplan and Zingales (1997), I constructed the market value of assets by adding up the book value of assets (at) and the market value of common/ordinary equity (ceq). Then subtracting the common/ordinary stock (cstk) and the deferred taxes (txdb). $Tobin\text{^}'s\ Q = (at + ceq - cstk - txdb)/at$ (Source: CRSP/compustat)
ROA	Net income over beginning of fiscal year total assets. (Source: CRSP/Compustat)
CEO Age (years)	The age of the CEO during the observed fiscal year, expressed in years. (Source: ISS)
CEO Tenure (years)	The time in years as a CEO, constructed by subtracting the year in which the individual became CEO from the year of observation. (Source: Execucomp)
CEO Gender (dummy 1= male)	If a CEO is male of gender, the dummy variable equal 1 and if not it equals 0. (Source: Execucomp)
Directional Interlock (dummy 1=interlock)	Dummy variable equal 1 if the CEO is interlocked and 0 if not. Directional interlocked is when a director executive is member of a different company. (Source: ISS)
Total compensation ($ thousands)	Total compensation comprises Salary, Bonus, other annual, total value of restricted stock granted, total value of stock options granted(using black-Scholes), long term incentive pay-outs, and all other total. (Source: Execucomp)

Pay-performance sensitivity	This variable can be interpreted as the amount of dollars a CEO receives for each extra $1000 of shareholder value. Based on the Black-Scholes model from Merton (1973). The option delta was constructed by first taking the partial derivative from the Black-Scholes model. Thereafter, the option delta is multiplied by the number of options granted divided by the number of outstanding options. (Sources: Execucomp & OptionMetrics)
Ln (value of donations) ($)	The natural logarithm of the total amount of donations a CEO i made in year t per candidate j. (Source: FEC)
Ln (Number of candidates supported)	The natural logarithm of the number of candidates a CEO i supports in year t. (Source: FEC)

Appendix B: Libby box

Libby box based on equation (4):



Appendix C: Black-Scholes model

The construction of the pay-performance sensitivity is based on the Black-Scholes model from Merton (1973) designed for the valuation of European call options:

$$Option\ value = (Se)\text{^}(-dT)\ N(Z) - Xe\text{^}(-rT)\ N(Z - \sigma\sqrt{T})$$

where

$$Z = (\ln(s/x) + T(r - d + \sigma\text{^}2/2))/(\sigma\sqrt{T})$$

Hereby;

S = price of the stock

D = dividend yield

T = time to maturity (time until expiration date) in years

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

R= risk free interest rate

X = exercise/strike price of the option

N = cumulative probability in normal distribution