Three essays on connections and corporate governance
Evidence from China

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Chapter 1

"I believe that in all men's lives at certain periods, and in many men's lives at all periods between infancy and extreme old age, one of the most dominant elements is the desire to be inside the local Ring and the terror of being left outside."

C.S. Lewis

Introduction

1.1   Motivation

In recent years, the revolution in information technology has shaped corporate strategy and created new business opportunities, transitioning from the Industrial Economy to the "Network Economy" (Shapiro and Varian, 1999). However, there is another network economy driving the corporate world, one as old as time: human connections. Connections structure political, economic, and social interactions, and lie at the core of all human interactions. The three essays in this dissertation aim to analyse the role of connections in corporate governance. Specifically, I study whether politically connected directors and CEOs attract more resources, either to the firms they work in, or to themselves. To do so, I propose a theoretical frame based on current sociological, financial, and political economic literature.

Two prevailing theories dominate research on connections. On the one hand, the resource dependence theory (Pfeffer and Salancik, 1978), which posits that connected directors or CEOs can add value to the firm by granting access to resources. On the other hand, the grabbing hand hypothesis, which suggests that network members can extract rents for their personal benefit (Boubakri et al., 2013). However, when we think of firms as players in an institutional and political system, two more theories need to be considered. First, the social comparison theory proposed by Festinger (1954), which explains that individuals have a drive to evaluate their opinions and abilities in comparison to other reference individuals, following equity criteria. Chizema et al. (2015) apply this theory to executive pay, as I do. Finally, the adaptative-power sharing theory argues that top executives can be placed in positions of power to maintain the stability of a certain regime

(Zhang et al., 2017). It is not easy to measure the value of a top executive but we can measure the value of a connection. In the first essay, in a joint work with Nuno Palma and Beatriz Simón-Yarza, we study connected directors as intermediaries for access to resources, namely, subsidies and cost of debt. If the connected individual adds value to the firm, it is reasonable that he is rewarded for it. "No other enterprise decision [. . .] attracts as much attention -and fury- as how much it rewards its executives" (Edmans, 2020). In the second and third essays, I focus on connected CEOs and directors respectively, as the recipients of the additional value the connection brings in the form of pay. The second essay is a joint work with Aditi Gupta and Beatriz Simón-Yarza, while the last paper is single-authored.

The field of political connections and corporate governance is not a novelty per se. I am indebted to an extensive literature (Cohen et al., 2008; Faccio et al., 2006; Fisman, 2001). I measure connections to the political elite -the 25 top members of the Chinese Politburo- relying on past educational links of the directors or CEOs. Several scholars have used similar proxies of connections in the United States (Do et al., 2016; Engelberg et al., 2012; Faleye et al., 2014; Fracassi and Tate, 2012; Hwang and Kim, 2009), in France (Nguyen, 2012), or in Korea (Schoenherr, 2019). The educational proxy had not been explored in China in the context of corporate governance research.

Thus, I revisit the relationship between connections and corporate governance, focusing on connections to the elite. The elite is composed in the three essays by the 25 political leaders in the Chinese Communist Party (CCP), a huge organization with more than 90 million members. The elite can ease access to key resources, block agreements, or assure job placements in an exchange of power and money. In a country like China, where economic growth has been the trend in the past decades, political elites have both career and financial incentives to encourage these exchange of resources (Ang, 2020). China provides me with the data and institutional setting to study the role of connections to the political elite.

When I look at the three essays together, I see that my most important contribution is the finding that the value of political connections depends on a firm's purpose. In general, purpose is a difficult concept to measure; however, in the case of China, purpose is differentiable and aligned with the ultimate shareholder of the firm (classified as "Private"

or "State"). Private firms in China follow market-based principles and their goal is to maximize shareholders' value, whereas SOEs seek to fulfil the political agenda of the CCP and to maintain social stability (Wang and Shailer, 2022). In this dissertation, I find that connections to the elite add resources to private firms, and top executives and directors are rewarded accordingly; however, connected members in SOEs seem to be placed in top positions without improving firm performance, and their compensation is lower.

1.2   Organization of the dissertation

The dissertation is written in accordance with the requirements of the School of Economics and Business Administration of the University of Navarra. The following three chapters refer to three papers that can be published in refereed journals.[1] The dissertation is organized as follows.

In chapter 2, we study the effect of having politically connected directors on Chinese boards of private listed firms on the access to resources. With the construction of a new dataset, we measure connections of directors to elite politicians linked through past university ties. Our findings show that private listed firms with politically connected directors in the boardroom get on average about 20% higher subsidies over sales (8.52 million yuan), and no significant lower cost of debt. These firms do not outperform their non-connected peers. We find that the value of the political connections strengthened after the Anti-Corruption Campaign of 2012. We argue that the value of connections in the private sector increased after the Anti-Corruption Campaign because they are a less risky alternative to corruption.

In chapter 3, we examine the effect of elite connections on CEO pay and turnover decisions, using a sample of Chinese listed firms. Our findings show that CEOs of private listed firms benefit from significantly higher salaries, consistent with the resource dependence theory, whereas the effect is not significant in SOEs. Connected CEOs in SOEs are less likely to experience turnover, and their compensation (turnover probability) increases (decreases) when performance decreases. Our measure of connections excludes reverse causality, and we use an exogenous shock that identifies the gain of a connection when

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[1]For this reason, the appendix materials for each paper are included at the end of each chapter and not as an appendix to the whole dissertation.

there is no turnover in a firm. This event allows us to observe that pay significantly increases in private firms when the CEO becomes connected to a member of the elite.

In chapter 4, I examine the effect of elite connections on director pay outcomes. Using a sample of Chinese listed firms and distinguishing between private and state-owned companies from 2007-2019, I identify connections to the elite by past educational networks. My findings show that chairmen of private listed firms benefit from significantly higher salaries, consistent with the resource dependence theory. However, in line with social comparison theory and adaptative-power sharing theory, connections of chairmen and independent directors in SOEs push salaries down. Additionally, these connected directors in SOEs are less likely to be paid.

Finally, chapter 5 concludes by highlighting the main contributions of the dissertation and exploring future lines of research.

Chapter 2

The Value of Political Connections in Private Firms: Evidence from China's Anti-Corruption Campaign

2.1   Introduction

Personal networks of directors impact the allocations of resources in the economy. We study the effect of political connections in private listed firms' boards to the Chinese elite on preferential access to resources, namely subsidies and cost of debt. We build a new dataset of exogenous connections between directors of the board and politicians of the Politburo in China. We rely on a historical measure of connections using university ties that predate the relationship with politicians, which rules out the possibility that the most skilled directors acquire political connections once they are sat on the board. We find that private firms with politically connected directors in the board get around 20% higher subsidies over sales, which translates into 8.52 million yuan on average (approximately USD 1.3 million).

We proxy connections to the elite improving the currently prevalent measures for Chinese ties used in the literature. Existing literature has used similar measures to analyze the effects of personal networks on corporate decisions and performance outside China. Nguyen (2012) measures elite's connections based on French educational and social networks and finds that better connected CEOs are less likely to experience turnover for poor performance. In Korea, the social ties of CEOs with politicians increase the probability of obtaining government contracts in private firms (Schoenherr, 2019). The more connections between the board of directors and CEOs the less likely the CEO is to be dismissed for poor performance (Nguyen, 2012). Better connected CEOs succeed in improving innovation (Faleye et al., 2014). Cohen et al. (2008) findings suggest that social networks may be relevant mechanisms for information flow into asset prices. Connections in a more external level include links between two companies' directors or managers (Fracassi and Tate, 2012), or in turn, political ties, which may benefit the firm obtaining

better financing and deals (e.g., Do et al. (2016); Faccio et al. (2006); Goldman et al. (2013)), and lead to better credit ratings or stock returns in the US (Engelberg et al., 2012).

Previous research analyzing Chinese political connections focuses on the value of having directors or executives with past political working experience, but not necessarily connections to the elite (Jia et al., 2019; Wang, 2015; Li et al., 2008; Cheng and Wu, 2019). Also, notice that the Chinese Communist Party is a huge organization with more than 90 million members. Thus, we are able to build an exogenous and clean measure of connections to the elite. Our measure captures whether a board director attended university with one of the 25 members of the Politburo, the highest political organism representing China's selective elite. To the best of our knowledge, we are the first to analyze the role of past school ties on resource allocation to private firms in China.[2] Confidence in our measure of connections is reassured as we observe that firms connected to politicians expelled from the Party lose their benefits.

Our measure proxies links to the elite and provides a better empirical identification of connections than alternative measures as it is exogenous in two senses. First, it captures the value connections built in the past, preceding the economic activity of the firm. Second, it is not related to China's recent events, this is, the political connections are not formed once they are in the boardroom. This allows us to rule out reverse causality of the connections. Finally, the educational tie allows us to disentangle the effect of personal connections and monetary forms of corruption. Ang (2020) unbundles corruption into four categories depending on whether the money spent is exchanged for privileges or not, and whether the amount of money paid is small or large. Our distinction is based on whether the privileges obtained come from the personal relation with the politician or from an exchange of money. Our results show that political connections remain valuable after controlling for pecuniary corruption, suggesting that they are both relevant and, indeed, distinct channels that alter the allocation of resources.

The launch of the Anti-Corruption Campaign (henceforth ACC) gives us the setting to investigate whether political connected directors act as a channel to obtain resources have

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[2]Griffin et al. (2021) use a similar measure based on school links, but they relate it to the likelihood of being prosecuted. Outside the firm context, some scholars have proxied Chinese connections using the educational network (Fisman et al., 2020; Jia et al., 2015; Shih et al., 2012).

become more or less important for firms after the campaign. Our empirical evidence shows that connections in fact increased in importance for private firms in the wake of the ACC. Connected private firms have received more subsidies after 2012. Doing business through corruption has become harder for private firms after the ACC, increasing the relative importance of elite connections.

There are two opposite potential effects of political connections to firms that arise in theory. On the one hand, the resource dependence theory (Pfeffer and Salancik, 1978) claims that directors provide resources, information and advice to managers, and this can lead to improved shareholder value. In the Chinese context, several studies support this view, finding that political connections ease access to bank loans (Cheng and Wu, 2019) or firms with independent political directors in the board outperform their unconnected peers (Wang, 2015). On the other hand, placing connected directors might result in an extractive practice if their connections make no difference or if they are a waste of resources. In this line, the grabbing hand hypothesis suggests that politically connected directors in firms serve the government aligning the companies' goals with the political agenda's views, often extracting private benefits from shareholders (Boubakri et al., 2013). Mixed results are not unusual, as the role of directors depends on the nature of firms. Pan and Gang (2017) exploit the difference in the nature of private and state-owned enterprises in China to explain that political relations based on bribing activities result in rent-seeking behavior in state firms while improve investment efficiency in private ones.

Our results show that connected directors bring positive subsidies to private firms. We argue that connections in the private sector act as a door to resources that would be difficult to obtain otherwise, especially after the increased scrutiny after the ACC. As Huang (2015) concludes, "Corruption in China helped to navigate around excessive regulations and controls in an overly centralized bureaucracy." Our findings suggest that allocation of resources in Chinese private listed firms responds to a personal criteria that is not aligned with better performance. Thus, these forms of elite personal networks have policy implications for China's subsequent development as they are likely to bring inefficiencies to the economy.

Our paper contributes to the existing literature in several ways. First, it looks into the value of connections to the Chinese political elite, as mentioned above. Second, it sheds

new insights into the literature examining the effect of the ACC and contributes to a broader literature that studies Chinese market institutions. Lack of strong enforcement of the rule of law in China has led to the development of alternative "hidden rules" governing the market (Bi et al., 2018). We examine if there has been a change in the value of the "being linked to the elite" rule after 2012. We show that the value of personal ties with politicians does not disappear after the ACC. In the case of private firms, it became stronger: connected firms get more subsidies relative to non-connected firms. Our research is close to Chen and Kung (2019) who study the effect of family connections in China in terms of getting significant land price discounts. Similar to Fang et al. (2018) and Giannetti et al. (2021) we study the effect of the ACC on the allocation of subsidies and cost of debt. However, we differ from them by analyzing an alternative channel: elite connections.

We organize the rest of the paper as follows. In section 2, we summarize China's institutional background and the previous findings of the literature. In section 3, we explain the methodology and describe the data. In section 4, we analyze the empirical findings. In section 5, we discuss our results and rule out other possible interpretations, and in section 6, we conclude.

2.2   The 2012 Anti-Corruption Campaign

The case of corruption in China is unique and deserves attention. During the last years there have been several reforms; one that has attracted particular worldwide attention has been the 2012 Anti-Corruption Campaign (ACC). The spread of corruption in China is a well-known fact since the beginning of the reform period (Liu, 1983, 1992; Manion, 1998; Myers, 1989; Nee, 1992; Oi, 1989; Pei, 2016; Sun, 2004; Wedeman, 2004, 2012, 2017; Zhou, 1996; Cao et al., 2018). Different presidents have, at least apparently, tackled it through anti-corruption campaigns (Tang. et al., 2018). However, the recent campaign launched by president Xi Jinping was novel in two senses. First, it was an unexpected campaign. President Xi announced it on November 8th, 2012, only two weeks after he was elected as General Secretary of the Party. Political takeover was too recent to expect a fierce campaign so soon. Precedents showed that new policies were usually announced in the plenum of the Central Committee. Second, the intensity of the campaign has been

the largest ever since 1978. More than two million people have been investigated. An important feature of this campaign is the eight-point policy document that was published in December 4th, 2012. This document makes clear the type of behavior that would not be tolerated, prohibiting government officials and firm executives to engage in corruptive behavior, such as perks.

Chinese government's lack of transparency hampers the assessment of whether the campaign is just a political tool against political enemies or a real attack to corruption (Bian, 2018). Empirically, there is mixed evidence on the real motivations behind the campaign: prosecution seems to be both driven by factionalist and anti-corruption motives (Griffin et al., 2021; Liu, 2018; Lorentzen and Lu, 2018; Lu, 2017). Part of the research evaluating the campaign up to now assumes that reducing corruption will automatically lead towards a market-based economy. That is, any decrease in corruption is seen as a positive step towards a more efficient market economy. According to the results presented by Giannetti et al. (2021) and Fang et al. (2018) this might be the case since they find some convergence towards a more resource efficient allocation economy.

Lack of strong institutions that support a merit-based economy in China can lead to unintended consequences. From a historical perspective, Chinese market institutions have supported personal market relationships more than impersonal ones. Impersonal market institutions have been developed in China only during the last decades and have become poorly ingrained in society (Gong and Zhou, 2015; Mattingly, 2016). On the contrary, corruption has grown much faster and it has become deeply entrenched in the Chinese economy. This reality hints at the possibility that fighting corruption will not automatically improve market institutions. The findings of Griffin et al. (2021) support this argument. According to their results, the campaign seems to be exclusively effective in reducing the amount of money firms spend luxuriously in courting partners but it has not been successful in reducing any of the other measures of potential corruption they study. More specifically, they find that CEO pay-for-performance sensitivity and operational inefficiency increase after 2012 whereas there are no major changes in party-related transactions, CEO compensation and investment inefficiency. That is, the campaign might have had a big impact in reducing a visible form of corruption, but that does not imply there has been an overall improvement of Chinese market institutions. Therefore, a key

question when analyzing the ACC is whether there is an alternative non-market allocation mechanism that restricts access to goods to an even smaller subset of the population, such as connections.

Qualitative evidence Osburg (2018) points in this direction. According to Osburg's field research, the anti-corruption campaign has made access to goods provided by the state even harder. Thus, the anti-corruption campaign might be shifting China towards an elite economy rather than a market-based economy. As Osburg pointed out in his essay, the campaign might have "been completely ineffective at curbing the privileges of the political elite and their families. In fact, (...) it is made it easier for them, since they can effectively monopolize state-controlled deals and industries" (Osburg, 2018). Are Chinese reforms supporting an economy where the elite has preferential access to resources?

Figure 2.1: Average Subsidies Received by Firms
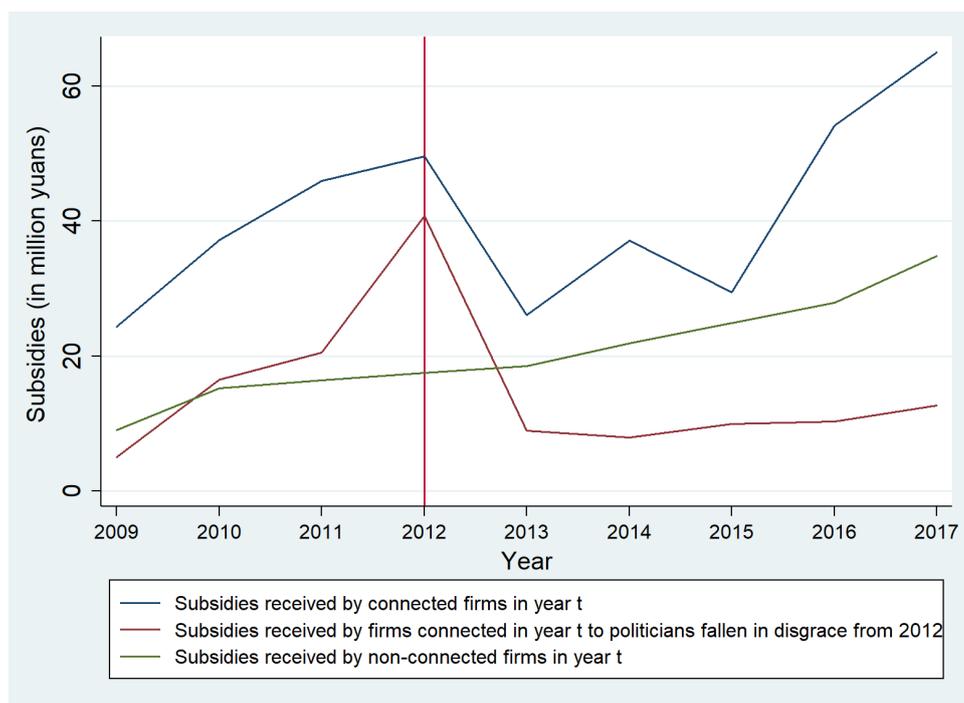
Figure 2.1 shows the average subsidies received by firms connected to Politburo politicians in year t (blue line); non-connected firms in year t (green line); and firms connected in year t to fallen politicians (red line), namely, Bo Xilai, Zhou Yongkang, Xu Caihou, Guo Boxiong, and Sun Zhengcai. Quantities are expressed in million yuan, and are deflated using the China's CPI.
Source: China Stock Market and Accounting Research Database and National Bureau of Statistics of China.

Illustrative evidence supports the fact of elite connections driving the allocation of resources

in the economy around the ACC. Figure 2.1 plots the average subsidies received by firms each year. The dotted line plots the average subsidies received on year t by firms without a connection in that year, whereas the dashed line corresponds to connected firms. The solid line represents the average subsidies received each year by firms connected to Politburo members fallen in disgrace, namely Bo Xilai, Zhou Yongkang, Xu Caihou, Guo Boxiong, and Sun Zhengcai. Except for Sun, all of them were Politburo members from 2007 to 2012. Bo Xilai was expelled from the party in September 2012 and charged with corruption in 2013. Zhou Yongkang and Xu Caihou were kicked out in 2014, and Guo Boxiong was expelled in 2015 and sentenced to life imprisonment in 2016. Sun was a Politburo member from 2012 until 2017, when he was removed. Two points can be highlighted out of this figure. First, the trend of the subsidies received by firms connected to fallen politicians suggests that our measure of connection captures a real tie to the elite. Whereas before 2012 connected firms to these politicians received increasing amounts of subsidies, they experienced a sudden decline coinciding with their political fall. Second, the figure suggests that connected firms (blue line) not only receive more subsidies than non-connected firms but the gap tends to increase after the arrival of Xi to power.[3]

We exploit the arrival of Xi Jinping to power and the launch of the ACC to answer if political connections have become more or less important after the anti-corruption campaign by making access to key goods easier for those connected.

2.3   Methodology and Data

In this section, we present our variables and the empirical model. We next explain how we build the sample of Chinese private listed firms and describe the characteristics of connected and non-connected firms.

Our empirical methodology is based on panel regression analysis to analyse the value of politically connected members of the board. Our baseline specification is the following:

$$Outcome_{i,s,p,t} = \gamma_0 + \gamma_1 Connection_{i,s,p,t-1} + \gamma_2 Entertainment_{i,s,p,t-1} + \gamma_3' x_{i,s,p,t-1}$$
$$+ \rho_i + \theta_s + \delta_p + \phi_t + \epsilon_{i,s,p,t}$$

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[3]The negative trend for connected firms after 2012 may be driven by the high political uncertainty due to the reelection of the Politburo and the launch of the ACC (Liu et al., 2017).

Our main focus is on subsidies and cost of debt, which are our dependent variables (here $Outcome_{i,s,p,t}$ for simplicity). It accounts for resources paid or received by firm i, in industry s, at the province p, in year t.[4] We measure the total amount of financial subsidies received from the government each year scaled by total revenues the previous year. We retrieve this information from the footnotes in the companies' financial statements. As for cost of debt, we follow the previous literature and compute it as interest expenses over total debt (Wang, 2015; Giannetti et al., 2021).[5]

Our main independent variable is *Connection*, a dummy variable that takes value one if the firm has at least one director in the board connected to a politician of the Politburo in power in year $t - 1$. A director is connected if he attended the same university, within a four year window, and studied the same degree type as a member of the Politburo. We build our sample from different sources. First, we obtain past education history from the directors of Chinese publicly listed private firms in the two mainland Stock Exchange markets: Shanghai and Shenzhen Stock Exchange. This information is provided by the China Stock Market and Accounting Research (CSMAR). We retrieve the following information: university attended, graduation year and type of degree (we classify university degree programs into four categories: undergraduate degree, masters degree, PhD or other). Parallely, we hand-collect education information about the Politburo members from China Vitae (http://www.chinavitae.com/index.php). This database is operated by the Carnegie Endowment for International Peace, and has been used by Jia et al. (2015). Table A2.4 in the Appendix lists all Politburo members.[6] These 25 members of the central and top level political committee are among the most powerful men in the country as the Politburo is the organ that de facto rules in China. Our measure of connection indicates whether a firm board member has attended the same university as any member of the Politburo, within four years of each other, and has studied the same degree type.

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[4]We also analyze firms' effective tax rate and find no significant results. These findings go in line with those of Lim et al. (2018), who explain that tax-based subsidies are given on a less subjective basis. See Table A2.3 in the Appendix.

[5]We also test two additional dependent variables: sales growth and investment. They reflect firm performance and firm behavior, and could be affected by a preferential treatment in the allocation of resources. We measure investment as the expenditures in fixed, intangible and long-term assets divided by total assets.

[6]In order to rule out the possibility that a Politburo member sat on the company board, we list directors whose names coincide with a Politburo member. There are only seven directors whose names matched three Politburo members. We checked individually that they were different people. Differences between these directors and politicians are presented in Table A2.5 in the Appendix.

For directors whom we do not have precise data about the timing when they attended university, we use their age and compare it to the age of the Politburo members within a four-year range.[7] Our measure is close to that of Do et al. (2016) as they consider a company in the US connected if a board member attended the same program and same university as a politician within a five-year window. We restrict the window to four years in a more conservative attempt to reduce the time span,[8] and we focus on a different research question and institutional setting. We lag the variable *Connection* one year to provide enough time for directors to bring resources to the company.[9]

We test the value of connections on a sample that spans from 2007 to 2017. Next, we divide our sample in two periods around the launch of the ACC in 2012. Our windows date from 2007 to 2012 and from 2013 to 2017. Connected directors in the first window are those linked with one of the 25 members of the 17th Politburo; and in the second period, to one of those of the 18th Politburo.

We differentiate pecuniary corruption, *Entertainment*, to from personal political connections. Cai et al. (2011) showed that the item Entertainment and Travelling Costs (found on the footnotes of the financial statements) is a good proxy for corruption. We follow the growing literature that uses this accounting item to analyze corruption (Fang et al., 2018; Giannetti et al., 2021; Griffin et al., 2021; Lin et al., 2018).[10] Our interest is focused on the impact of political ties to the Politburo on resources allocation once we control for corruption. If *Connection* was a channel of pecuniary corruption, the significance of the coefficient should disappear after controlling for *Entertainment*. We will find this is not the case.

We add a vector of control variables $x_{i,s,p,t-1}$ based on a large extant literature (Pittman

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[7]About 57% of our observations are missing the graduation date. For these observations we use directors' age as a proxy. This likely leads to some measurement error due to falsely including some directors as connected and excluding some connected ones in our sample of connected firms. Since this kind of error is expected to be random, reported coefficients suffer attenuation bias, suggesting the true results are stronger.

[8]Additionally, we repeat our analysis using a 2 year window and results hold. See Tables A2.6 and A2.7 in the Appendix.

[9]We try different lag structures of *Connection*, and results are similar. See Tables A2.8 and A2.9 in the Appendix.

[10]We obtain entertainment expenses by adding the total amount of "Business Entertainment Fees", "Travel and Transportation Fees", and "Car Expenses" and scaling them by total revenues. While we acknowledge that this item contains both legitimate and illegitimate expenses, it allows us to rule out the possibility that the effect of political connections is totally driven by an exchange of money for business privileges.

and Fortin, 2004; Bliss and Gul, 2012; Rajan and Petersen, 1994). We control for leverage, since highly leveraged firms are likely to be considered riskier by lenders, and therefore we expect high levels of leverage to be positively correlated with high cost of debt. Firms with higher profitability measures are usually in a better position to repay debts, so we add cashflows from operation to control for the ability of the firm to generate cash internally. We also include market-to-book ratio (as higher market valuation could translate into lower cost of debt); capital expenditure; and size, measured as the log of total assets (Carey et al., 1993). Intangibility, obtained as the ratio of intangible assets to total assets, is a key determinant of investment (Pan and Gang, 2017). Following the previous literature, we use the same controls for subsidies but we exclude cash holdings and growth (Wang, 2015; Feng et al., 2015; Li et al., 2019).

Finally, we add two board controls: the ratio of board independent directors, and the board gender ratio. Giannetti et al. (2015) and Bradley and Chen (2015) show that independent directors decrease the cost of debt for firms that are financially strong and have low leverage ratios, while they increase the cost of debt for firms in opposite conditions. We need to take into account that ratios of independent directors in Chinese boards are still low; it is not unusual to observe ratios around 30%, as reported by Morgan Stanley Capital International (MSCI, 2017) and Wang (2015). The latter author reports that nominally independent but politically connected directors significantly increase access to debt for private Chinese firms. Finally, we control for time-invariant specific characteristics that may be correlated with omitted explanatory variables by employing fixed-effect specifications (firm ρ_i, industry θ_s, province δ_p, and year ϕ_t). Standard errors are clustered by firm, province, industry, and year.

Once we have identified connections in the full CSMAR universe of Chinese listed firms, we merge these data with accounting data from CSMAR. Both the number of Chinese listed firms and data availability in CSMAR increase over the years. We drop observations for firms the year after an IPO, since they experience large variations in prices and in measures in the financial statements. We also drop financial, special treatment, and B-shares firms. We eliminate observations with missing directors' education data or missing accounting data.[11] We end up with 5,119 firm-year observations, out of which 999 have at least one

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[11]As we loose a large number of observations due to missing educational data of directors, for robustness, we repeat the analysis considering missing connections as non-connected firms. Results are slightly weaker

member of the board connected to a Politburo politician (for a distribution by year, see
Figure 2.2). We have data on 1,395 firms. In the matched sample, we have 1,086 firms.

Figure 2.2: Distribution of Connections by Year
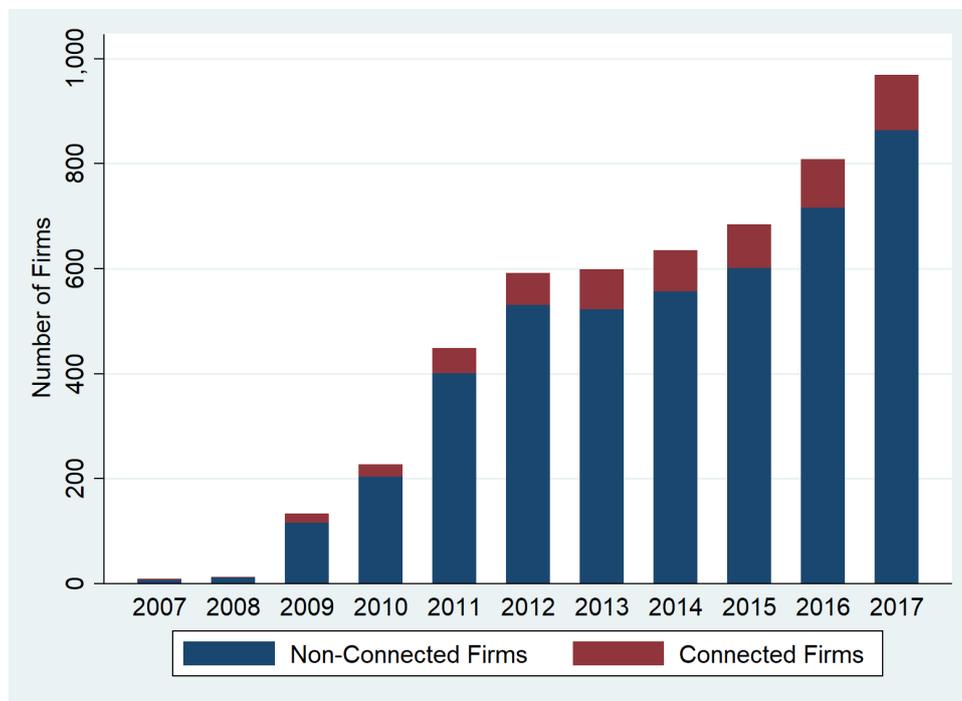
In these firms, there are 62,930 director-year observations according to the number of
directors in our sample's Chinese boards. We identify 1,261 director-year connections to
at least one Politburo member. In our final sample, we have the educational and personal
information of 11,862 directors. 2,017 (17%) went to top 5 universities in China, and
2,605 (22%) went to one of the top 10 universities in China. 484 individual directors are
connected to at least one politician in the Politburo, this is 4% of our total number of
directors. Among these connected directors, 59% (61%) went to top 5 (top 10) universities
in China. 63% of directors are sat in one board, 87% are sat in three boards or less. Less
than 1% of directors sits in more than 10 boards. Notice that one third of the connections
come from directors' links to one of the 25 members of the first Politburo, while two thirds
from links to the second Politburo members, as we show in Table A2.4.

A caveat in the validity of the results could appear in the basic regressions on the full
sample, since our sample is unbalanced (only a 10% of our observations are politically
connected firms). Differences between politically connected firms and non-connected firms
may explain the different outcomes (i.e. size); and our two samples differ indeed on a

but still hold.

number of dimensions. Belonging to a specific industry may lead to a firm receiving larger subsidies. As Fang et al. (2018) state, from 2005 until 2015 the Chinese Government spent about 1% of GDP in subsidizing R&D. Thus, industries with more intensive R&D were more eligible for subsidies. To resolve this concern, we construct a matching in order to perform the analysis on two samples with similar observable characteristics. Non-connected firms are selected from (i) the same accounting year and (ii) the same industry. Next, we match our treatment observations to cases from the control group without replacement, by establishing a maximum caliper distance along size and leverage. Following this procedure, our matched sample contains 3,050 firm-year observations, out of which 527 are connected firms. We consider our baseline to be the matched sample.

Table 2.1: Descriptive Statistics

This table describes the sample of Chinese private listed firm-year observations. Panel A describes the characteristics of firms in the total and matched samples. Panel B reports the mean differences between connected and non-connected firms, both in the total and matched sample. All accounting and board variables are obtained from CSMAR. The size is measured as the natural logarithm of monetary values in Chinese ¥.

Panel A: Total and Matched Sample - Descriptive Statistics

	Total sample				Matched sample			
	Mean	Max	Min	SD	Mean	Max	Min	SD
Subsidy	.017	.199	0	.022	.017	.199	0	.024
Cost of Debt	.018	.081	-.053	.016	.018	.087	-.047	.016
Return on Assets	.049	.226	-.235	.047	.050	.257	-.235	.047
Size	21.518	26.101	19.231	.97	21.505	26.101	19.046	.994
Leverage ratio	.349	.929	.019	.195	.354	.904	.018	.197
Entertainment	.014	.138	0	.015	.013	.091	0	.016
Cash Holdings	.217	.862	.005	.17	.222	.906	.005	.173
Growth	.248	7.292	-.737	.544	.264	7.767	-.709	.590
Capital Expenditure	.061	.294	0	.054	.059	.294	0	.053
Operating Revenue	.599	11.416	.006	.5	.591	11.416	.006	.529
Market to Book	3.023	17.685	.187	2.382	3.035	17.685	.187	2.455
Board Independence ratio	.375	1	0	.346	.37	1	0	.332
Board Gender ratio	.746	1	0	.302	.745	1	0	.293
N firm-year obs.	5,119				3,050			
N firms	1,395				1,086			

Panel B: Total and Matched Sample - Connected vs. Non-Connected

	Total sample			Matched sample		
	Non-Conn.	Conn.	Diff. (p-value)	Non-Conn.	Conn.	Diff. (p-value)
Growth	.255	.241	.536	.263	.251	.635
Leverage	.371	.375	.599	.375	.366	.341
Market to Book	2.689	2.728	.684	2.708	2.716	.934
Cash Holdings	.178	.195	.006***	.186	.196	.195
Capital Expenditure	.059	.052	.004***	.058	.052	.014**
Size	21.697	21.804	.019**	21.69	21.769	.113
Entertainment	.014	.013	.303	.014	.0135	.193
Board Independence ratio	.373	.396	.128	.364	.393	.062*
Board Gender ratio	.754	.75	.732	.752	.756	.808
N firm-year obs.	4,532	587		2,523	527	
N firms	1,323	245		1,022	220	

*** $p < 0.001$, ** $p < 0.05$, * $p < 0.1$

Table 2.1 reports the characteristics of the sample variables, both the total sample and

the matched sample (Panel A). Subsidies received by the government on average amount to 24.3 million yuan, which corresponds to 1.7% of firm sales. Firms pay on average interest expenses equivalent to 1.8% of their debt. Pecuniary corruption, proxied by the variable *Entertainment*, represents 1.4% of firms' total sales. However, there is large variation among firms: the standard deviation is 1.5%. Moreover, we can see that while some firms have entertainment expenses close to zero, others spend up to 13.8% of sales in *Entertainment* (9.1% in the matched sample), which is more that ten times the mean. A potential concern is that connections operate through pecuniary corruption, *Entertainment*. We look to the correlation between the two variables. Table A2.10 in the Appendix reports the cross-correlations of all variables. The linear correlation between *Connection* and *Entertainment* is only -0.061.

Panel B in Table 2.1 reports univariate t-test on differences in means between connected and non-connected firms. Connected firms show significant higher levels of cash holdings, lower capital expenditure, and are bigger. The matched sample offers more balanced characteristics among connected and non-connected firms, as shown in the last columns of Panel B in Table 2.1.

2.4   Empirical Findings

We study how connected private firms obtain subsidies and cost of debt compared to non-connected private firms, and we interpret the results. We later distinguish two sub-periods: before and after the ACC. We argue the positive relation between connection and subsidies is causal. Finally, we explore the relationship between connections and two performance outcomes: investment and sales growth.

2.4.1   The Value of Connections in the Private Sector

We analyze the relation between political connections and our two key dependent variables, subsidies and cost of debt; results are reported in Tables 2.2 and 2.3. Columns (1) to (3) of the tables correspond to the regression analysis run over the total sample, and columns (4) to (6) show the results for the matched sample.

Connected firms receive higher subsidies, 0.2 percentage points higher subsidies than

Table 2.2: Connections and Subsidies, 2007-2017

In this table we estimate regressions at the firm level. The dependent variable is the total subsidies over sales in year t. The independent variable of interest is *Connection*, a binary variable equal to 1 if there is at least one director of the board connected to a member of the Politburo in year $t-1$, and zero otherwise. Independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

VARIABLES	Total Sample			Matched Sample		
	Subsidy (1)	Subsidy (2)	Subsidy (3)	Subsidy (4)	Subsidy (5)	Subsidy (6)
Connection	0.002**	0.002*	0.002*	0.002**	0.003**	0.003**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Entertainment			0.023			0.122
			(0.064)			(0.109)
Size		0.001	0.001		0.002	0.002
		(0.001)	(0.001)		(0.001)	(0.001)
Leverage		-0.001	-0.001		-0.001	-0.001
		(0.002)	(0.002)		(0.004)	(0.005)
Market to Book		0.000	0.000		0.000	0.000
		(0.000)	(0.000)		(0.000)	(0.000)
Return on Assets		0.002	0.003		-0.002	0.002
		(0.015)	(0.016)		(0.018)	(0.021)
Capex		0.012	0.011		0.014	0.014
		(0.008)	(0.008)		(0.013)	(0.012)
Board Indep.		0.000	0.000		-0.000	-0.001
		(0.001)	(0.001)		(0.001)	(0.001)
Board Gender		-0.003***	-0.003**		-0.003	-0.003
		(0.001)	(0.001)		(0.002)	(0.002)
Constant	0.014***	0.003	0.001	0.014***	-0.023	-0.034
	(0.000)	(0.021)	(0.023)	(0.000)	(0.027)	(0.033)
Observations	5,119	5,119	5,119	3,050	3,050	3,050
Adj. R-squared	0.540	0.540	0.540	0.528	0.528	0.531
FE	Yes	Yes	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 2.3: Connections and Cost of Debt, 2007-2017

In this table we estimate regressions at the firm level. The dependent variable is the cost of debt (CoD) in year t: interest paid over total debt. The independent variable of interest is *Connection* in year $t - 1$, a binary variable equal to 1 if there is at least one director of the board connected to a member of the Politburo, and zero otherwise. Independent variables are lagged one year. All specifications include firm, year, industry and province fixed effects.

VARIABLES	Total Sample			Matched Sample		
	CoD (1)	CoD (2)	CoD (3)	CoD (4)	CoD (5)	CoD (6)
Connection	-0.001	-0.000	-0.000	-0.001**	-0.001	-0.001
	(0.000)	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)
Entertainment			-0.045*			-0.064**
			(0.021)			(0.027)
Size		0.002**	0.002**		0.002	0.002
		(0.001)	(0.001)		(0.001)	(0.001)
Leverage		0.038***	0.038***		0.035***	0.035***
		(0.003)	(0.003)		(0.003)	(0.003)
Market to Book		-0.000	-0.000		-0.000***	-0.000**
		(0.000)	(0.000)		(0.000)	(0.000)
Return on Assets		-0.019**	-0.021***		-0.027***	-0.029***
		(0.006)	(0.006)		(0.005)	(0.005)
Capex		-0.005	-0.005		-0.012	-0.012
		(0.007)	(0.007)		(0.007)	(0.007)
Cash Holding		-0.008***	-0.008***		-0.009***	-0.010***
		(0.002)	(0.002)		(0.002)	(0.003)
Growth		-0.001**	-0.001**		-0.001*	-0.001**
		(0.000)	(0.000)		(0.000)	(0.001)
Board Indep.		-0.000	-0.000		-0.001	-0.001
		(0.001)	(0.001)		(0.001)	(0.001)
Board Gender		-0.001	-0.001			
		(0.001)	(0.001)		-0.000	0.000
Constant	0.018	-0.043**	-0.040*			
	(0.000)	(0.019)	(0.019)	0.018***	-0.032	-0.027
Observations	5,119	5,119	5,119	3,050	3,050	3,050
Adj. R-squared	0.588	0.659	0.660	0.583	0.648	0.648
FE	Yes	Yes	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

non-connected firms, as shown in columns (1) to (3) in Table 2.2.[12] Turning to columns (4) to (6), we show our results are not driven by the heterogeneity of our sample. We eliminate potential biases coming from heterogeneity on the observable characteristics, as we proceed with the regression analysis over the matched sample. The coefficients obtained in columns (4) to (6) reinforce our findings on the total sample. Connected private firms obtain 0.3 percentage points higher subsidies. Since average subsidies over sales amount to 1.7% (see Table 2.1), this corresponds to 20% higher subsidies. The economic significance is large: 8.52 million yuan on average.

Connections do not matter in the private sector in terms of receiving cheaper debt, as reported in Table 2.3, columns (1) to (6). As columns (3) and (6) show, corruption (*Entertainment*) in the private sector is targeted at obtaining cheaper debt. However, and differently from what happens with subsidies, connections do not make a significant difference. As expected, higher leveraged firms show increased cost of debt, firms with higher ROA, cash holding, and growth present lower credit costs.

For both the total and the matched sample, the value of connections remains strong when controlling for corruption, which is proxied by *Entertainment* expenses. This means that *Connection* is not just capturing the effect of spending more money on Entertainment and Travelling Costs. As we see in Table 2.3, columns (3) and (6), more *Entertainment* payment results in significantly lower cost of debt in the private sector, although it does not alter the significant value of personal connections on subsidies in the private sector, even the coefficient is positive, it is not significant, as shown in Table 2.2 columns (3) and (6). However, controlling for *Entertainment* does not rule out the possibility of connected firms obtaining resources by means of corruption. We test this hypothesis by adding an interaction term.[13] We observe that there is no joint significance of the interactive relationship between *Connection* and *Entertainment*. There is no difference in the effect: connected firms do not obtain significantly higher subsidies than non-connected firms by means of corruption. The effect of *Entertainment* expenses does not differ if a firm is connected. Also, connected firms that spend more on *Entertainment* expenses are not the ones getting access to higher subsidies or lower financing costs. This leads us to

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[12]Since average subsidies over sales amount to 1.7% (see Table 2.1), this corresponds to 13% higher subsidies).

[13]These additional results are available upon request.

conclude that connection matters independently of the expense on *Entertainment*.

We argue that connected directors in the private sector bring resources to the firm. China's financial and banking sectors are controlled by the government and serve as a means to finance government's projects. Banks operate according to political criteria. Officials can freely provide loans to state-owned enterprises, whether profitable or not, without bearing personal risks by justifying that they are meeting Party directives. On the contrary, it is harder for private companies to get loans as it implies taking a financial risk without political justification. In some periods, the banking sector has been almost closed to private companies (Haggard and Huang, 2008; Allen et al., 2005; Lardy, 2019).[14] Moreover, the time-span of our sample coincides with the 2008 financial crisis, when the Chinese state adopted quantitative easing policies. At the time, Chinese authorities announced a 4 trillion yuan (USD 586 billion) stimulus package with the goal of providing a financial buffer to state companies, which were meant to lower unemployment and embark on investment projects. The stimulus package had a crowding out effect and increased shadow banking in the country (Huang et al., 2020; Chen et al., 2020). Overall, this means that being friends with the elite does not compensate for the risk that an official in the financial sector bears when granting an "unjustified" loan to a private company.

Subsidies, by contrast, constitute an alternative financial resort for which private companies are eligible. Government differs from banks and can legitimately grant subsidies to private companies without bearing financial risks. Indeed, we find connections play an effective role in the private sector when it comes to getting access to subsidies. Connected private firms access significantly both higher subsidies over sales (see Table 2.2 and greater total amount of subsidies (see Table A2.12 in the Appendix).

While we acknowledge that we cannot claim causality out of our empirical strategy, we argue that connected directors in the private sector bring resources to the firm. The exogeneity of our measure of connections leaves only as a potential endogeneity concern the fact that connected directors are placed on specific companies. To rule out this concern, first we look at the conditional distribution of connected directors according to firm size.

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[14]Since 1998, the government has explicitly allowed banks to lend to private companies. Despite this permission, in 2009 the share in value of bank loans given to private enterprises only amounted to 1.78% (Yao et al., 2019). Lardy (2019) notes that over the period of 2010-2013 private firms received more new bank loans than did state-owned enterprises. However, this trend reversed after 2013, and in 2017, the state sector received 89% of new loans.

If connected directors are randomly allocated, implying that they have not been placed in specific companies, then the conditional distribution of connected firms by size should replicate that of non-connected firms. This is what happens in the private sector. Figure 2.3 plots the distribution of connections on the total sample conditional on their size. The distribution of connected and non-connected firms is similar in the private sector, even if slightly shifted to the right for connected companies. We also observe from Figure 2.1 that the fall of the politicians to whom any given firm is connected leads to an immediate decrease in subsidies to those firms.

Figure 2.3: Distribution of Connections by Size
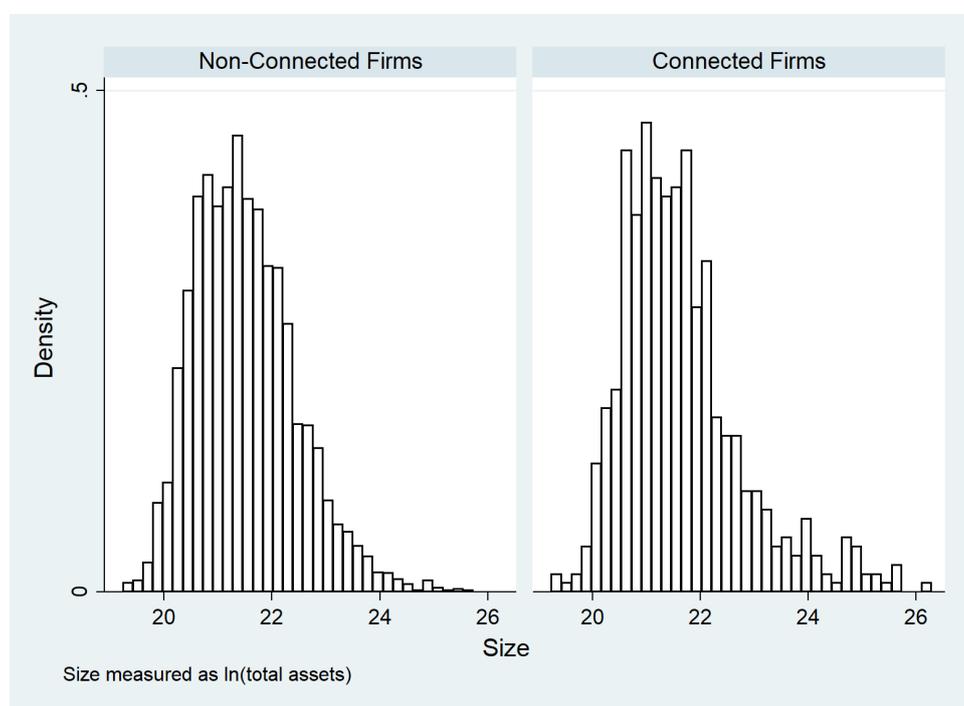
Charts show the distribution of non-connected and connected private firms according to their size. Size is measured as the natural logarithm of total assets. Firms above 24 are those whose total assets surpass 26.5 billion yuan per year. Source: China Stock Market and Accounting Research Database.

Next, we repeat our regression analysis reducing our sample of connected firms to those that have at least one connected director to Politburo members that were both elected in the 17th and 18th Party Congresses. In this way, we eliminate potential confounding effects. Results become stronger for subsidies. We report these results in Table A2.13 in the Appendix. Additionally, we also exploit the churning in the Politburo, reducing our sample of connected firms to those who have at least one connected director to the new members of the Politburo elected in 2012. Subsidies of firms that started to be

connected to these members significantly increased. Results are shown in Table A2.14 in the Appendix. These results reinforce our argument that connections are causal in the private sector.

2.4.2   Connections around the Anti-Corruption Campaign

Next, we examine the value of connections around the ACC of 2012. Xi Jinping launched an ACC that is different to previous effort, both in the extent and intensity. Our interest focuses on elite links to Politburo members as opposed to pecuniary corruption (*Entertainment*) studied by previous academics (Fang et al., 2018; Giannetti et al., 2021).

We show in Table 2.4 that connections became important after the President's arrival to power, supporting Osburg's theory of the rising importance of the elite (Osburg, 2018). Before 2012, connected directors in private firms did not bring subsidies to the companies, as we observe in columns (1) and (2). By contrast, connected private firms received 0.2 percentage points higher subsidies after Xi Jinping's arrival to the Presidency, as shown in columns (3) and (4).

Corruption in the private sector plays an important "greasing wheels" role: it has been a widespread channel for eased access to resources (Lin et al., 2018; Pan and Gang, 2017). Indeed, our results show that Chinese private firms used corruption as a tool to get subsidies. As a consequence of the ACC, corruption suffered a negative shock, meaning that this conventional door to resources was closed, or at least, hampered (Fang et al., 2018; Giannetti et al., 2021). In turn, the value of the alternative and less visible channel of connections to the political elite increased after the ACC, as shown by our findings.

Turning to Table 2.5, we find that connected firms do not display preferential treatment in terms of lower interest rates both before or after 2012, as seen in columns (1) to (4).[15]

Consistent with our results in the previous section, we find that connections did not have a significant effect in the private sector in terms of reducing the cost of debt (see columns (3) to (4) in Table 2.5).

Overall, these findings reinforce our previous argument that connected directors have a causal effect in the private sector. The fact that their "value" increased in private firms

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[15]We also conduct the analysis including pre and post 2012 dummies. The results are similar (see Table A2.11 in the Appendix).

Table 2.4: Subsidies before and after the Anti-Corruption Campaign

In this table we estimate regressions at the firm level, splitting the matched sample between before and after the Anti-Corruption Campaign of 2012. Pre-2012 period dates from 2007 to 2012, while Post-2012 period spans from 2013 to 2017. Independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

VARIABLES	Pre-2012 Subsidy (1)	Pre-2012 Subsidy (2)	Post-2012 Subsidy (3)	Post-2012 Subsidy (4)
Connection	0.002	0.002	0.002**	0.002**
	(0.005)	(0.006)	(0.001)	(0.001)
Entertainment		0.041		0.018
		(0.237)		(0.071)
Size	0.003***	0.003***	0.003	0.003
	(0.000)	(0.000)	(0.002)	(0.002)
Leverage	-0.017	-0.017	-0.001	-0.001
	(0.020)	(0.029)	(0.004)	(0.004)
Market to Book	-0.000	-0.000	0.001	0.001
	(0.001)	(0.001)	(0.000)	(0.000)
Return on Assets	-0.026	-0.025	-0.002	-0.001
	(0.019)	(0.020)	(0.032)	(0.035)
Capex	0.007	0.008	0.028	0.028
	(0.024)	(0.035)	(0.016)	(0.015)
Board Indep.	-0.006	-0.006	0.001	0.001
	(0.006)	(0.008)	(0.002)	(0.002)
Board Gender	0.003	0.003	-0.003	-0.003
	(0.002)	(0.003)	(0.002)	(0.002)
Constant	-0.045***	-0.047***	-0.052	-0.054
	(0.001)	(0.006)	(0.035)	(0.038)
Observations	934	934	2,116	2,116
Adj. R-squared	0.425	0.424	0.607	0.607
FE	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

after the ACC supports they act as resource providers.

2.4.3   Connections and Firms' Behavior

Finally, we explore whether the effect of connections on resource allocation is reflected on other outcomes. We focus on sales growth and investment, since they proxy firm-level market performance, and firm strategic decisions. The main question is whether the access to higher subsidies for connected firms translates into or responds to better outcomes.

We find that higher subsidies do not induce firms to obtain more sales, as reported in Table 2.6. The model in column (1) shows that sales in connected firms grow around 6 percentage points less than in non-connected firms. These results are confirmed when we instead run the regression on the matched sample, as shown in column (2), even though the negative correlation to growth is not significant.

Connected private firms invest less although not significantly, as shown in Table 2.6. Both in our total and matched samples, connected firms display 0.2 percentage points lower

Table 2.5: Cost of Debt before and after the Anti-Corruption Campaign

In this table we estimate regressions at the firm level, splitting the matched sample between before and after the Anti-Corruption Campaign of 2012. Pre-2012 period dates from 2007 to 2012, while Post-2012 period spans from 2013 to 2017. Independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

VARIABLES	Pre-2012 CoD (1)	Pre-2012 CoD (2)	Post-2012 CoD (3)	Post-2012 CoD (4)
Connection	0.006	0.006	-0.001	-0.001
	(0.003)	(0.003)	(0.001)	(0.001)
Entertainment		-0.042		-0.059
		(0.083)		(0.035)
Size	-0.001	-0.001	0.004**	0.004**
	(0.002)	(0.002)	(0.001)	(0.001)
Leverage	0.039***	0.039***	0.042***	0.042***
	(0.007)	(0.008)	(0.006)	(0.005)
Market to Book	-0.000	-0.000	-0.001**	-0.001**
	(0.000)	(0.000)	(0.000)	(0.000)
Return on Assets	-0.019	-0.019	-0.019***	-0.021***
	(0.019)	(0.020)	(0.004)	(0.004)
Capex	-0.022	-0.023	-0.016	-0.016
	(0.019)	(0.019)	(0.011)	(0.011)
Cash Holdings	-0.001	-0.002	-0.009	-0.009
	(0.004)	(0.004)	(0.005)	(0.005)
Growth	0.001	0.001	-0.001	-0.001*
	(0.002)	(0.001)	(0.001)	(0.001)
Board Indep.	0.003	0.003	-0.001	-0.001
	(0.003)	(0.003)	(0.001)	(0.001)
Board Gender	-0.004	-0.003	-0.001	-0.001
	(0.002)	(0.003)	(0.002)	(0.002)
Constant	0.024	0.025	-0.074**	-0.069*
	(0.045)	(0.044)	(0.023)	(0.026)
Observations	934	934	2,116	2,116
Adj. R-squared	0.723	0.722	0.638	0.638
FE	Yes	Yes	Yes	Yes

Clustered Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 2.6: Connections and Performance, 2007-2017

In this table we estimate regressions at the firm level. The dependent variables are growth of sales and investment from year $t-1$ to year t. The independent variable of interest is *Connection*, a binary variable equal to 1 if there is at least one director of the board connected to a member of the Politburo, and zero otherwise. Independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

VARIABLES	Total Sample Growth (1)	Matched Sample Growth (2)	Total Sample Capex (3)	Matched Sample Capex (4)
Connection	-0.063**	-0.042	-0.002	-0.002
	(0.023)	(0.025)	(0.004)	(0.004)
Entertainment	5.239*	8.886**	-0.124	-0.004
	(7.088)	(3.799)	(0.079)	(0.168)
Size	-0.165*	-0.275***	0.004*	0.006
	(0.077)	(0.084)	(0.002)	(0.004)
Leverage	0.397	0.327	-0.008	0.008
	(0.224)	(0.249)	(0.007)	(0.010)
Market to Book	0.042**	0.042**	0.002**	0.002
	(0.014)	(0.014)	(0.001)	(0.001)
Cash Holding	0.044	0.145	0.049***	0.052***
	(0.064)	(0.097)	(0.011)	(0.014)
Capex	-0.948**	-0.321		
	(0.338)	(0.229)		
Operating Revenue			0.002	0.000
			(0.003)	(0.004)
Intangible			0.078***	0.074*
			(0.014)	(0.039)
Board Indep.	0.011	0.079	0.000	0.002
	(0.038)	(0.062)	(0.003)	(0.005)
Board Gender	0.137*	0.044	0.005	0.008
	(0.066)	(0.030)	(0.004)	(0.008)
Constant	3.256*	5.736***	-0.056	-0.103
	(1.707)	(1.704)	(0.043)	(0.097)
Observations	5,119	3,050	3,537	2,138
Adj. R-squared	0.243	0.108	0.498	0.491
FE	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

investment (columns (3) and (4) in Table 2.6).

Our results are suggestive of an inefficient allocation of resources, which seem to be distributed according to personal criteria, namely linkages to the political elite, as opposed to impersonal but efficient criteria. Connected private firms obtain significantly higher subsidies even though they display no better performance in terms of sales growth and investment, if not lower.

2.4.4 Ruling Out Alternative Explanations

Finally, we rule out the possibility that our results are driven by other effects unrelated to connections. Due to the way we identify connections, it could be argued that we are capturing an educational effect. It could also be argued that our measure of connections cannot capture elite ties because of massive university attendance in China, which could make our measure too noisy. We provide evidence against both possibilities.

As connected firms are those that have at least one director who attended the same universities as the members of the Politburo, we could think that the effect of obtaining higher subsidies or lower cost of debt derives from the education of board members. For example, the universities attended by top politicians could provide better business and financial training, or it could simply be that the most talented individuals attend the same universities. In fact, the best universities in China are among the group of universities attended by both Politburo members and board members.[16] To rule out this hypothesis, we repeat the analysis using two alternative variables: *University* and *Top5*. *University* is a dummy variable that takes a value of one if at least one board director of a firm attended the same university as a Politburo member, irrespective of time period and type of degree. The results under this specification are not significant, which suggests that our results are not driven by the quality of the educational institutions or, more generally, by the alumni networks. Table 2.7 summarizes the results (in order to be concise, we report the coefficients of the regressions run over the matched sample). Similarly, *Top5* is a dummy variable that equals one if at least one director in the board attended one of the top 5 universities in China. Results are shown in Table 2.8. Overall, political connections remain significant after controlling for the presence of alumni directors from

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[16]Table A2.15 in the Appendix contains a list with the universities that Politburo members attended.

top universities in the board.[17]

Table 2.7: Value of Attending the Same Universities

In this table we estimate regressions at the firm level for the total and matched samples. The dependent variables are subsidies, cost of debt, sales growth and investment (Capex). The independent variable of interest is *University*, a binary variable equal to 1 if there is at least one director of the board who attended the same university as any member of the Politburo, irrespective of the time period and degree type, and zero otherwise. Independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

Panel A: Subsidies

	Total Sample			Matched Sample		
		Pre-2012	Post-2012		Pre-2012	Post-2012
	(1)	(2)	(3)	(4)	(5)	(6)
University	0.001	0.005	0.001*	0.001	0.001	0.001
	(0.001)	(0.004)	(0.000)	(0.001)	(0.001)	(0.001)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,028	1,372	3,656	3,050	934	2,116
Adj. R-squared	0.544	0.468	0.587	0.529	0.425	0.604
FE	Yes	Yes	Yes	Yes	Yes	Yes

Panel B: Cost of Debt

	Total Sample			Matched Sample		
		Pre-2012	Post-2012		Pre-2012	Post-2012
	(1)	(2)	(3)	(4)	(5)	(6)
University	-0.000	0.002	-0.000	-0.000	0.003*	0.001
	(0.000)	(0.002)	(0.000)	(0.001)	(0.001)	(0.001)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,028	1,222	3,656	3,050	934	2,116
Adj. R-squared	0.658	0.771	0.675	0.648	0.720	0.638
FE	Yes	Yes	Yes	Yes	Yes	Yes

Panel C: Growth and Investment

	Total Sample	Matched Sample	Total Sample	Matched Sample
		Growth		Investment
	(1)	(2)	(3)	(4)
University	0.078*	0.003	0.001	0.002
	(0.042)	(0.040)	(0.003)	(0.003)
Controls	Yes	Yes	Yes	Yes
Observations	5,028	3,050	3,473	2,138
Adj. R-squared	0.248	0.052	0.497	0.161
FE	Yes	Yes	Yes	Yes

Robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

It could also be argued that Chinese universities have large cohorts, making our measure a weak proxy of connections. However, most members of both Politburos and board of directors attended university before 1998, when fewer people graduated from university in China. In fact, during the Cultural Revolution, "students were selected mainly according to their family backgrounds and political beliefs" and only 280,000 students were admitted

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[17]Results for the full sample are in Table **??** and A2.16 in the Appendix.

Table 2.8: Value of Attending Top5 Universities

In this table we estimate regressions at the firm level for the total and matched sample, including a dummy variable *Top5*, which equals one if at least one of the directors in the board attended one of the top 5 universities in China. The dependent variables are subsidies, cost of debt, sales growth and investment (Capex). Independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

Panel A: Subsidies

	Total Sample			Matched Sample		
		Pre-2012	Post-2012		Pre-2012	Post-2012
	(1)	(2)	(3)	(4)	(5)	(6)
Connection	0.002*	0.001	0.002*	0.003**	0.002	0.002**
	(0.001)	(0.003)	(0.001)	(0.001)	(0.007)	(0.001)
Top5	0.001*	-0.000	0.001*	-0.000	-0.000	0.001
	(0.000)	(0.003)	(0.001)	(0.001)	(0.004)	(0.001)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,119	1,424	3,695	3,050	934	2,116
Adj. R-squared	0.541	0.467	0.581	0.530	0.422	0.607
FE	Yes	Yes	Yes	Yes	Yes	Yes

Panel B: Cost of Debt

	Total Sample			Matched Sample		
		Pre-2012	Post-2012		Pre-2012	Post-2012
	(1)	(2)	(3)	(4)	(5)	(6)
Connection	-0.000	0.003	-0.001	-0.001	0.005	-0.002
	(0.001)	(0.003)	(0.001)	(0.001)	(0.004)	(0.001)
Top5	0.001	0.002*	0.000	0.001	0.003*	0.001
	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,119	1,424	3,695	3,050	934	2,116
Adj. R-squared	0.660	0.763	0.674	0.649	0.723	0.638
FE	Yes	Yes	Yes	Yes	Yes	Yes

Panel C: Growth and Investment

	Total Sample	Matched Sample	Total Sample	Matched Sample
		Growth		Investment
	(1)	(2)	(3)	(4)
Connection	-0.060	-0.043	-0.004	-0.005
	(0.034)	(0.028)	(0.004)	(0.004)
Top5	0.031	0.009	0.002	0.004
	(0.034)	(0.046)	(0.003)	(0.004)
Controls	Yes	Yes	Yes	Yes
Observations	5,119	3,050	3,537	2,138
Adj. R-squared	0.240	0.112	0.488	0.482
FE	Yes	Yes	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

every year (Chen, 2013). The year 1977 was a turning point in terms of higher education in China with the resumption of entrance examinations and the establishment of academic scores as entrance criteria. Despite the re-opening of academic institutions, the shift from "elite" education to "mass" education did not occur until 1999. As shown in Figure 2.4, the number of college admissions surged from that year. In 1998, China hosted 3.4 million students across 1,022 academic institutions, meaning that each university had on average only 3,335 students (Chen, 2013).[18]

Figure 2.4: College Admissions in China (millions)
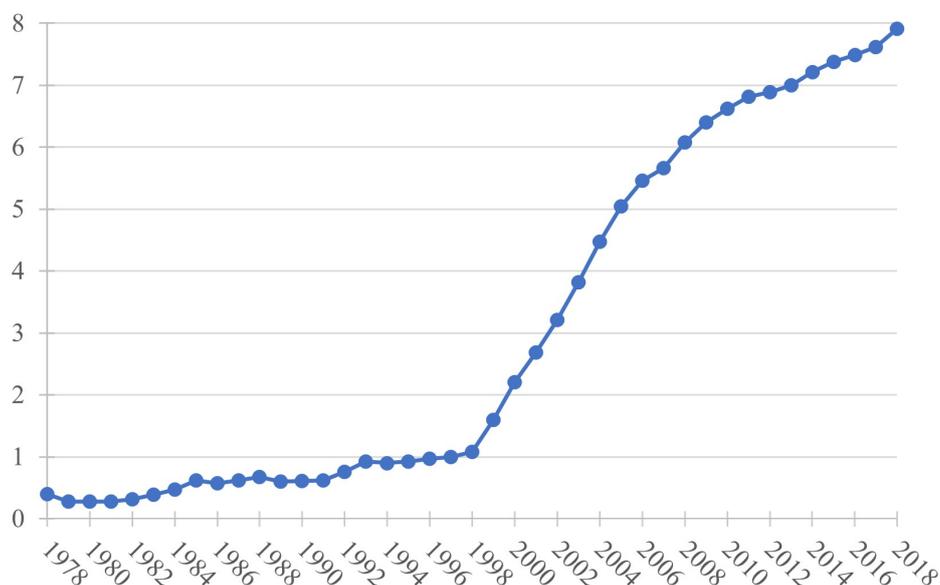
Figure 2.4 shows the number of college students admitted in China from 1978 to 2018 in millions. While there was a sudden jump in 1999, before that year the total amount of admitted students per year did barely surpass a million students. Source: National Bureau of Statistics of China (China Statistical Yearbook, years 2001 and 2019).

Therefore, our variable *Connection* is exempt from China's current mass education phenomenon, increasing the probability of capturing real elite connections.

Additionally, we perform intensity robustness tests with alternative non-dichotomous measures of connections. We look at the ratio and total number of connected directors in the board. We observe that a greater number of directors in the board is correlated with more resources. We find that firms with higher ratios of connected directors or more connected directors in the board access more benefits. Table 2.9 shows the results. Overall,

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[18]In 1999 the number of institutions and students almost doubled, reaching 1942 and 7.2 million. During the following years it kept growing at high rates (Chen, 2013).

we find that a higher number of connected directors translates into higher subsidies but not lower cost of debt.

Table 2.9: Intensity of Connections in the Board

In this table we estimate regressions at the firm level in the matched sample. The dependent variables are the total subsidies over sales, total subsidies (in millions) and cost of debt in year t. In Panel A, the independent variable of interest is *Ratio_Connections*, the ratio of directors of the board connected to a member of the Politburo in year $t - 1$. In Panel B, the independent variable of interest is the *Number_Connections*, which is the number of connected directors in the board. Independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

Panel A: Ratio Connections

	Subsidy			Cost of Debt		
		Pre-2012	Post-2012		Pre-2012	Post-2012
	(1)	(2)	(3)	(4)	(5)	(6)
Ratio_Connections	0.016**	0.000	0.018***	0.002	0.017	-0.002
	(0.004)	(0.015)	(0.008)	(0.006)	(0.020)	(0.004)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,050	934	2,116	3,050	934	2,116
Adj. R-squared	0.648	0.720	0.637	0.531	0.423	0.607
FE	Yes	Yes	Yes	Yes	Yes	Yes

Panel B: Number of Connections

	Subsidy			Cost of Debt		
		Pre-2012	Post-2012		Pre-2012	Post-2012
	(1)	(2)	(3)	(4)	(5)	(6)
Number_Connections	0.002***	0.002	0.002**	0.000	0.005*	-0.000
	(0.000)	(0.004)	(0.000)	(0.001)	(0.002)	(0.001)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,050	934	2,116	3,050	934	2,116
Adjusted R-squared	0.531	0.424	0.607	0.648	0.724	0.637
FE	Yes	Yes	Yes	Yes	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

2.5   Conclusion

This paper identifies and measures a preferential allocation mechanism to access resources in China: elite connections. Through a clean and exogenous measure of political connections, we are able to measure the value of personal past educational links to Politburo members, before and after the 2012 Anti-Corruption Campaign. We find that private listed firms with connected members in the board get more subsidies than non-connected ones: 0.3 percentage points higher subsidies over sales, which translates into 8.52 million yuan on average (approximately USD 1.3 million). However, despite the power of this additional

channel, connections do not translate into higher sales growth or higher investment ratios. On the contrary, we find that connected firms display lower sales growth than non-connected firms.

We also show that the 2012 ACC was not effective at curving the privileges to the elite, as connections remain a relevant channel to access resources after 2012. The crackdown was fierce and according to previous literature, it decreased corruptive behaviour. We disentangle connections from pecuniary corruption and highlight the difference between these two different channels. Our results show that the effect of connections does not disappear after the campaign. In fact, our evidence suggests that their value has increased in terms of obtaining subsidies for private firms. Connections in these firms open access to resources that could be difficult to obtain otherwise. This is consistent with the increasing value of connections in the private sector after the ACC, as they could act as an alternative channel to corruption in order to get resources.

The article concludes connections play an important role in the allocation of resources for Chinese private listed firms and the ACC has not targeted elite links, as we observe an intensification of the value of this personal channel after 2012.

2.6   Appendix: Additional Tables and Empirical Results

Table A2.1: Variables description

Board Gender	Ratio of male directors to total number of board members. Winsorized at the 1% and 99% level.
Board Independence Ratio	Ratio of independent directors (those who are neither executive directors nor have any pecuniary relationship with the corporation) over total number of board members. Winsorized at the 1% and 99% level.
Capital Expenditure	Ratio of capital expenditure to total assets. Winsorized at the 1% and 99% level.
Cash Holding	Cash ratio. Winsorized at the 1% and 99% level.
Connection	Dummy variable equal to one if a firm has at least one board member who attended the same university as a Politburo member, graduated within a four-year window, and studied the same type of degree.
Subsidy	Total government subsidies received by firm i in year t over total operating revenue in year t-1. Winsorized at the 1% and 99% level.
Connection_2yw	Binary variable equal to one if a firm has at least one board member who attended the same university as a Politburo member, graduated within a two-year window, and studied the same type of degree.
Connection_bothPB	Dummy variable equal to 1 if the firm has at least one director connected to a Politburo member that was both electedin the 17th and 18th Party Congress.
Connected_New PB members	Dummy variable equal to 1 if at least one director of a given firm gained a connection in 2012 to a newly elected Politburo member.
Cost of Debt (CoD)	Ratio of total interest payment to total debt. Winsorized at the 1% and 99% level.
Effective Tax Rate (ETR)	Tax Expenses minus deferred taxes over pre-tax profits. Variable truncated between 0 and 1.
Entertainment	Ratio of travelling and business entertainment expenses to operating revenue. Winsorized at the 1% and 99% level.
Intangible	Net intangible assets to total assets. Net intangible assets are the total intangible assets minus the depreciation, amortization and provision for impairment.
Leverage	Ratio of total liabilities to total assets. Winsorized at the 1% and 99% level.
Growth	Sales Growth. Winsorized at the 1% and 99% level.
Market to Book	Ratio of market value to total assets. Market value is computed by multiplying total shares times its price. We take prices on December 31st of each year. Winsorized at the 1% and 99% level.
Size	Natural logarithm of total assets. Winsorized at the 1% and 99% level.
Return on Assets (ROA)	Ratio of net profit to total assets. Winsorized at the 1% and 99% level.
State	Dummy variable that takes a value of one if a firm is state-owned, 0 otherwise.
University	Dummy variable equal to one if at least one board member attended the same university as a Politburo member.
Top5	Dummy variable equal to 1 if at least one of the directors in the board attended one of the top 5 universities in China.
Tot_Subs	Total amount of subsidies, expressed in million yuans. Winsorized at the 1% and 99% level.

Table A2.2: Media References

Ref. Nº	Source of the media reference
Ref. 1	Gerry Shih, "In China, investigations and purges become the new normal", *The Washington Post*, October 22, 2018. https://www.washingtonpost.com/world/asia_pacific/in-china-investigations-and-purges-become-the-new-normal/2018/10/21/077fa736-d39c-11e8-a275-81c671a50422_story.html
Ref. 2	Chris Buckley, "Pursuing Graft Cases at Higher Levels, Chinese Leader Risks Unsettling Elites", *The New York Times*, September 25, 2013. https://www.nytimes.com/2013/09/26/world/asia/pursuing-graft-cases-at-higher-levels-chinese-leader-risks-unsettling-elites.html
Ref. 3	"Xi Jinping's anti-corruption campaign: how broad is it? What is the goal?" (Xíjìnpíng de fǎnfǔ yùndòng: Fànwéi yǒu duō guǎng? Mùbiāo shì shénme?), *BBC News*, October 23, 2017. www.bbc.com/zhongwen/simp/chinese-news-41719314
Ref. 4	"Central inspection team: benefit transmission and related transactions become the key words of central enterprises corruption" (Zhōngyāng xúnshì zǔ: Lìyì shūsòng, guānlián jiāoyì chéng yāngqǐ fǔbài guānjiàn cí), *Sohu News*, October 19, 2015. https://business.sohu.com/20151019/n423607053.shtml
Ref. 5	Tom Mitchell, Xinning Liu, and Gabriel Wildau, "China's private sector struggles for funding as growth slows" *Financial Times*, January 21, 2019. https://www.ft.com/content/56771148-1d1c-11e9-b126-46fc3ad87c65
Ref. 6	"Central inspection team: benefit transmission and related transactions become the key words of central enterprises corruption" (Zhōngyāng xúnshì zǔ: Lìyì shūsòng, guānlián jiāoyì chéng yāngqǐ fǔbài guānjiàn cí), *Sohu News*, October 19, 2015. https://business.sohu.com/20151019/n423607053.shtml
Ref. 7	"More than 30 executives of state-owned enterprises have been investigated this year, including two middle-management cadres" (Jīnnián yǐ yǒu 30 yú míng guóqǐ gāo guǎn bèi chá hán liǎng míng zhōng guǎn gànbù), *CPC News*, August 16, 2018. http://fanfu.people.com.cn/n1/2018/0816/c64371-30231773.html
Ref. 8	"The Central Commission for Discipline Inspection revealed that state-owned enterprise leaders are most likely to make these mistakes" (Jǐngtì! Zhōng jìwěi pīlù, guóqǐ lǐngdǎo zuì róngyì fàn zhèxiē cuò), *QQ news*. https://new.qq.com/omn/20181018/20181018A0BB05.html?pc=

Table A2.3: Connections and Effective Tax Rate, 2007-2017

In this table we estimate regressions at the firm level. The dependent variable is effective tax rate (ETR) in year t, computed as the total amount of income tax to total profits, subtracting the deferred taxes. The independent variable of interest is *Connection* in year $t-1$, a binary variable equal to 1 if there is at least one director of the board connected to a member of the Politburo, and zero otherwise. Independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

VARIABLES	Total Sample			Matched Sample		
	ETR	ETR	ETR	ETR	ETR	ETR
	(1)	(2)	(3)	(4)	(5)	(6)
Connection	-0.012	-0.011	-0.011	-0.003	-0.001	-0.001
	(0.012)	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)
Entertainment			-0.182			-0.177
			(0.350)			(0.250)
Size		0.010	0.010		0.008	0.008
		(0.010)	(0.011)		(0.009)	(0.009)
Leverage		0.014	0.013		0.026	0.026
		(0.028)	(0.029)		(0.032)	(0.035)
Market to Book		0.002	0.002		-0.000	-0.000
		(0.002)	(0.002)		(0.001)	(0.001)
Return on Assets		-0.150	-0.157		-0.116	-0.122
		(0.132)	(0.140)		(0.161)	(0.158)
Board Indep.		-0.009	-0.009		-0.010	-0.010
		(0.015)	(0.016)		(0.021)	(0.021)
Board Gender		-0.010	-0.009		-0.042	-0.042*
		(0.018)	(0.018)		(0.024)	(0.023)
Constant	0.193***	-0.019	-0.006	0.189***	0.045	0.060
	(0.001)	(0.232)	(0.248)	(0.002)	(0.211)	(0.220)
Observations	4,180	4,180	4,180	2,538	2,538	2,538
Adj. R-squared	0.153	0.153	0.153	0.167	0.167	0.167
FE	Yes	Yes	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A2.4: Politburo Members

Table A2.4 shows Politburo members elected after the 17th and 18th Party Congress. New members arriving in 2012 are in italics. Fallen politicians are marked with an asterisk. All fallen politicians were expelled after they left the Politburo. Source: China Vitae (http://www.chinavitae.com/). Third and fifth columns contain the number of directors connected to each politician in our sample.

	2007-2012	2012-2017
	Politburo member	Politburo member
1	Hu Jintao	Xi Jinping
2	Wen Jiabao	Li Keqiang
3	Bo Xilai*	*Fan Changlong*
4	Guo Boxiong*	*Guo Jinlong*
5	He Guoqiang	*Han Zheng*
6	Hui Liangyu	*Hu Chunhua*
7	Jia Qinglin	*Li Jianguo*
8	Li Changchun	Li Yuanchao
9	Li Keqiang	*Li Zhanshu*
10	Li Yuanchao	*Liu Qibao*
11	Liu Qi	Liu Yandong
12	Liu Yandong	Liu Yunshan
13	Liu Yunshan	*Ma Kai*
14	Wang Gang	*Meng Jianzhu*
15	Wang Lequan	*Sun Chunlan*
16	Wang Qishan	*Sun Zhengcai**
17	Wang Yang	*Wang Huning*
18	Wang Zhaoguo	Wang Qishan
19	Wu Bangguo	Wang Yang
20	Xi Jinping	*Xu Qiliang*
21	Xu Caihou*	Yu Zhengsheng
22	Yu Zhengsheng	*Zhang Chuxian*
23	Zhang Dejiang	Zhang Dejiang
24	Zhang Gaoli	Zhang Gaoli
25	Zhou Yongkang*	*Zhao Leji*

Table A2.5: Directors and Politburo Members with the Same Name

In this table, we show how directors whose name coincides with a Politburo members' name differ in some characteristics that allow us to rule out that they are the same person. Column (1) shows in bold the name of Politburo members and the period they serve in the Politburo, as well as names of the directors. Column (2) refers to the years that these directors sat on a board. Columns (3) to (5) show the different characteristics between the director and the Politburo member that allow us to tell that they are different people. For example, director 1, namely Wang Gang, sat on a board from 2008 to 2014, cannot be the same person as Politburo member Wang Gang, as he was born on a different year. Source: China Vitae and CSMAR.

Name	Years on Board	Different Birth Year	Different University	Different Gender
(1)	(2)	(3)	(4)	(5)
Wang Gang: 2007-2012				
Director 1 (Wang Gang)	2008-2014	x		
Director 2 (Wang Gang)	2011-2014	x	x	
Director 3 (Wang Gang)	2008-2009	x		
Wang Yang: 2007-2017				
Director 1 (Wang Yang)	2015-2017	x	x	
Director 2 (Wang Yang)	2010-2017	x	x	
Li Jianguo: 2012-2017				
Director 1 (Li Jianguo)	2014	x	x	
Director 2 (Li Jianguo)	2009-2014		x	x

Table A2.6: Alternative Measure of Connections using a 2 Year Window

In this table we repeat the regressions shown in Tables 2.2 and 2.3 using the variable *Connection_2yw*, an alternative measure of connections. Instead of using a 4 year window to consider that a director is connected, we use a 2 year window. The independent variable of interest is *Connection_2yw*, a binary variable equal to 1 if there is at least one director of the board connected to a member of the Politburo in year $t-1$, and zero otherwise. Independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

Panel A: Total Sample

VARIABLES	Subsidy (1)	Subsidy (2)	Subsidy (3)	CoD (4)	CoD (5)	CoD (6)
Connection_2yw	0.003***	0.003***	0.003***	0.000	0.000	0.000
	(0.001)	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)
Entertainment			0.024			-0.045*
			(0.064)			(0.037)
Controls	No	Yes	Yes	No	Yes	Yes
Observations	5,119	5,119	5,119	5,119	5,119	5,119
Adjusted R-squared	0.540	0.541	0.541	0.588	0.659	0.660
FE	Yes	Yes	Yes	Yes	Yes	Yes

Panel B: Matched Sample

VARIABLES	Subsidy (1)	Subsidy (2)	Subsidy (3)	CoD (4)	CoD (5)	CoD (6)
Connection_2yw	0.003***	0.003***	0.003***	0.000	0.000	0.000
	(0.000)	(0.001)	(0.000)	(0.000)	(0.001)	(0.001)
Entertainment			0.111			-0.043
			(0.105)			(0.031)
Controls	No	Yes	Yes	No	Yes	Yes
Observations	2,445	2,445	2,445	2,445	2,445	2,445
Adjusted R-squared	0.503	0.504	0.506	0.617	0.675	0.675
FE	Yes	Yes	Yes	Yes	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A2.7: Alternative Measure of Connections using a 2 Year Window (Cont.)

In this table we repeat the regressions shown in Tables 2.4 and 2.5 using the variable *Connection_2yw*, an alternative measure of connections. Instead of using a 4 year window to consider that a director is connected, we use a 2 year window. The independent variable of interest is *Connection_2yw*, a binary variable equal to 1 if there is at least one director of the board connected to a member of the Politburo in year $t-1$, and zero otherwise. Pre-2012 period dates from 2007 to 2012, while Post-2012 period spans from 2013 to 2017. Independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

Panel A: Total Sample

VARIABLES	Pre-2012 Subsidy (1)	Pre-2012 Subsidy (2)	Post-2012 Subsidy (3)	Post-2012 Subsidy (4)	Pre-2012 CoD (5)	Pre-2012 CoD (6)	Post-2012 CoD (7)	Post-2012 CoD (8)
Connection_2yw	0.005	0.005	0.003**	0.003**	0.005**	0.004*	-0.000	-0.000
	(0.005)	(0.005)	(0.001)	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)
Entertainment		-0.081		-0.002		-0.088		-0.028
		(0.093)		(0.068)		(0.061)		(0.029)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,424	1,424	3,695	3,351	1,424	1,424	3,695	3,695
Adjusted R-squared	0.469	0.470	0.581	0.565	0.762	0.764	0.674	0.674
FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Panel B: Matched Sample

VARIABLES	Pre-2012 Subsidy (1)	Pre-2012 Subsidy (2)	Post-2012 Subsidy (3)	Post-2012 Subsidy (4)	Pre-2012 CoD (5)	Pre-2012 CoD (6)	Post-2012 CoD (7)	Post-2012 CoD (8)
Connection_2yw	0.005	0.005	0.002**	0.002**	0.003	0.003	-0.000	-0.000
	(0.006)	(0.005)	(0.001)	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)
Entertainment		-0.049		0.080		-0.083		-0.038
		(0.117)		(0.095)		(0.077)		(0.042)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	730	730	1,715	1,342	730	730	1,715	1,715
Adjusted R-squared	0.375	0.373	0.546	0.552	0.711	0.712	0.675	0.675
FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A2.8: Connections in t

In this table we estimate regressions at the firm level. The dependent variables are subsidies over sales and cost of debt in year t. The independent variable of interest is *Connection*, a binary variable equal to 1 if there is at least one director of the board connected to a member of the Politburo in years $t-1$ and t, and zero if there is no connected director in those years. Other independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

Panel A: Total Sample

VARIABLES	Subsidy (1)	Subsidy (2)	CoD (3)	CoD (4)
Connection	0.003**	0.003**	-0.000	0.001
	(0.001)	(0.001)	(0.000)	(0.001)
Controls	No	Yes	No	Yes
Observations	4,953	4,953	4,953	4,953
Adjusted R-squared	0.537	0.537	0.587	0.659
FE	Yes	Yes	Yes	Yes

Panel B: Matched Sample

VARIABLES	Subsidy (1)	Subsidy (2)	CoD (3)	CoD (4)
Connection	0.003***	0.003**	-0.000	0.000
	(0.001)	(0.001)	(0.001)	(0.001)
Controls	No	Yes	No	Yes
Observations	2,914	2,914	2,914	2,914
Adjusted R-squared	0.522	0.525	0.580	0.644
FE	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A2.9: Connections in $t-2$

In this table we estimate regressions at the firm level. The dependent variables are subsidies over sales and cost of debt in year t. The independent variable of interest is *Connection*, a binary variable equal to 1 if there is at least one director of the board connected to a member of the Politburo in years $t-2$ and $t-1$, and zero if there is no connected director in $t-2$ or $t-1$. Other independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

Panel A: Total Sample

VARIABLES	Subsidy	Subsidy	CoD	CoD
	(1)	(2)	(3)	(4)
Connection	0.003***	0.003**	-0.000	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Controls	No	Yes	No	Yes
Observations	3,749	3,749	3,749	3,749
Adjusted R-squared	0.549	0.550	0.598	0.669
FE	Yes	Yes	Yes	Yes

Panel B: Matched Sample

VARIABLES	Subsidy	Subsidy	CoD	CoD
	(1)	(2)	(3)	(4)
Connection	0.003**	0.003**	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Controls	No	Yes	No	Yes
Observations	2,257	2,257	2,257	2,257
Adjusted R-squared	0.539	0.540	0.571	0.637
FE	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A2.10: Correlation Matrix

Table A2.10 shows the Pearson correlation among variables.

	Subsidy	CoD	Connection	Entert.	Growth	Capex	ROA	Size	Leverage	Cash	Op.Rev.	M/B	Intang.	Indep.	Gender
Subsidy	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost of Debt	-.089	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Connection	.045	-.047	1	0	0	0	0	0	0	0	0	0	0	0	0
Entertainment	.296	-.139	-.015	1	0	0	0	0	0	0	0	0	0	0	0
Growth	.134	-.068	-.028	.066	1	0	0	0	0	0	0	0	0	0	0
Capex	.053	.081	-.031	-.087	-.011	1	0	0	0	0	0	0	0	0	0
ROA	.094	-.246	.044	.001	.156	.092	1	0	0	0	0	0	0	0	0
Size	-.085	.065	.036	-.253	.116	-.004	.08	1	0	0	0	0	0	0	0
Leverage	-.155	.306	.004	-.245	.046	-.005	-.308	.493	1	0	0	0	0	0	0
Cash Holdings	.104	-.247	.049	.142	-.000	-.059	.229	-.194	-.354	1	0	0	0	0	0
Operating Revenue	-.252	.071	-.017	-.255	.047	.073	.144	.023	.138	-.025	1	0	0	0	0
Market to Book	.185	-.209	.009	.228	.075	.007	.261	-.427	-.44	.286	-.07	1	0	0	0
Intangible	.056	.054	-.042	.015	.198	.204	.03	-.017	-.028	-.06	-.03	.068	1	0	0
Board Indep. Ratio	-.04	-.001	-.0093825	-.062	-.004	.013	-.006	-.000	.009	.013	-.003	-.028	-.013	1	0
Board Gender Ratio	-.011	-.007	-.011	-.024	.015	.004	.006	.024	.033	.023	.059	-.059	.008	.17	1

Table A2.11: Pre and Post Anti-Corruption Campaign

In this table we estimate regressions at the firm level, differenciating the pre and post Anti-Corruption Campaign periods. Pre-2012 period dates from 2007 to 2012, while Post-2012 period spans from 2013 to 2017. Independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

VARIABLES	Subsidy (1)	Subsidy (2)	Subsidy (3)	CoD (4)	CoD (5)	CoD (6)
Connection*Pre	0.002	0.002	0.003	0.001	0.001	0.001
	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)
Connection*Post	0.002***	0.002**	0.003**	-0.002***	-0.001	-0.001
	(0.000)	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)
Entertainment			0.124			-0.050*
			(0.110)			(0.026)
Controls	No	Yes	Yes	No	Yes	Yes
Observations	3,050	3,050	3,050	3,050	3,050	3,050
Adj. R-squared	0.528	0.528	0.530	0.583	0.645	0.646
FE	Yes	Yes	Yes	Yes	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A2.12: Connections and Total Subsidies

In this table we estimate regressions at the firm level. The dependent variable is the total subsidies (in millions) in year t. The independent variable of interest is *Connection*, a binary variable equal to 1 if there is at least one director of the board connected to a member of the Politburo in year $t - 1$, and zero otherwise. Independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

VARIABLES	Tot_Subs (1)	Tot_Subs (2)	Tot_Subs (3)
Connection	7.370***	8.463**	8.501**
	(2.190)	(3.566)	(3.475)
Entertainment			188.238
			(119.264)
Size		23.282***	23.934***
		(4.684)	(5.107)
Leverage		9.685	10.199
		(10.835)	(10.934)
Market to Book		3.633**	3.603**
		(1.620)	(1.598)
Return on Assets		119.031*	125.488*
		(63.969)	(68.107)
Capex		62.669	61.973
		(41.283)	(40.674)
Board Indep.		-4.755*	-4.899*
		(2.176)	(2.528)
Board Gender		-11.952	-12.179
		(7.325)	(7.220)
Constant	23.625***	-490.741***	-507.465***
	(0.268)	(105.842)	(116.888)
Observations	3,049	3,049	3,049
Adj. R-squared	0.630	0.653	0.653
FE	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A2.13: Connections to Poliburo members that were both elected in the 17th and 18th Party Congress

In this table we repeat the main regressions of the paper using an alternative measure of connection. We consider connected only those firms that have at least one director connected to a Politburo member that was both elected in the 17th and 18th Party Congress. By doing so we eliminate potential confounding effects. Columns (1) and (2) refer to the whole sample period, whereas columns (3) to (10) refer to either the pre-2012 or post-2012 period. Subsidies are reported in Panel A and Cost of Debt in Panel B. Independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

Panel A: Subsidies

VARIABLES	Subsidy (1)	Pre-2012 Subsidy (2)	Pre-2012 Subsidy (3)	Post-2012 Subsidy (4)	Post-2012 Subsidy (5)
Connection_bothPB	0.003*	0.004	0.004	0.003**	0.003**
	(0.001)	(0.003)	(0.003)	(0.001)	(0.001)
Entertainment	0.034		-0.045		0.016
	(0.070)		(0.076)		(0.060)
Controls	Yes	Yes	Yes	Yes	Yes
Observations	5,322	1,442	1,442	3,880	3,880
Adjusted R-squared	0.537	0.464	0.464	0.585	0.585
FE	Yes	Yes	Yes	Yes	Yes

Panel B: Cost of Debt

VARIABLES	CoD (1)	Pre-2012 CoD (2)	Pre-2012 CoD (3)	Post-2012 CoD (4)	Post-2012 CoD (5)
Connection_bothPB	0.000	0.004	0.004	-0.000	-0.000
	(0.001)	(0.003)	(0.003)	(0.001)	(0.001)
Entertainment	-0.038*		-0.092		-0.018
	(0.019)		(0.064)		(0.031)
Controls	Yes	Yes	Yes	Yes	Yes
Observations	4,972	1,133	1,133	3,549	3,549
Adjusted R-squared	0.655	0.759	0.761	0.657	0.657
FE	Yes	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A2.14: Connections to newly elected Politburo members in 2012

In this table exploit the arrival of new members to the Politburo in 2012. The variable $Connected\_NewPBmembers$ is a dummy variable equal to one if at least one director of that firm started to be connected in 2012 to a newly elected Politburo member. The interaction $Connected\_NewPBmembers * Post$ captures the effect of being connected to a new Politburo member after 2012. In columns (1) and (2) we run this regression over a sample with firms connected to newly elected Politburo members and non-connected firms. In columns (3) and (4) we run again the same regression reducing our sample only to firms that became connected to new Politburo members after 2012. The variable $Post$ is a dummy variable equal for years after 2012 and zero otherwise. Independent variables are lagged one year. All specifications include firm, industry, and province fixed effects.

| VARIABLES | Treatment and Controls | | Treatment | |
| | Subsidy | Cost of Debt | Subsidy | Cost of Debt |
	(1)	(2)	(3)	(4)
Connected_New PB members*Post	0.002**	-0.001	0.003**	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Post	-0.002**	-0.001	-0.004**	0.001
	(0.001)	(0.001)	(0.002)	(0.001)
Controls	Yes	Yes	Yes	Yes
Observations	4,899	4,899	703	703
Adjusted R-squared	0.526	0.649	0.576	0.627
Year FE	No	No	No	No
Industry FE	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A2.15: Value of Attending the Same University

Table A2.15 shows the universities attended by Politburo members. Universities belonging to the top 15 Chinese universities according to the 2020 QS World Ranking Universities are marked with an asterisk. Source: China Vitae (http://www.chinavitae.com/)

	University Name
1	Anhui Normal University
2	Anshan Institute of Iron and Steel Technology
3	Beijing Agriculture and Forestry Institute
4	Beijing Institute of Chemical Engineering
5	Beijing Institute of Geology
6	Beijing Institute of Iron and Steel Engineering
7	Beijing Institute of Petroleum (now China University of Petroleum)
8	Beijing University of Science and Technology
9	Central Party School
10	China Agricultural University
11	Chinese Academy of Social Sciences
12	East China Normal University
13	Fudan University*
14	Harbin Institute of Technology*
15	Harbin Military Academy of Engineering Institute
16	Hebei Institute of Technology (now Hebei University of Technology)
17	Hebei Normal University
18	Jilin Agricultural University
19	Jilin University
20	Kim-Il Sung University
21	Laiyang Agricultural College (now Qingdao Agricultural University)
22	Liaoning University
23	Nanjing University*
24	National Defense University
25	National Defense University in Beijing
26	Northeastern Heavy Machinery Institute (now Yanshan University)
27	Northwestern University in Xi'an City
28	Peking University*
29	People's Liberation Army Military Academy /Beijing Military Academy
30	People's Liberation Army Xuanhua Artillery Academy
31	PLA Air Force Academy in Xinyang City
32	PLA Air Force No. 1 Preparatory School in Shenyang City
33	PLA Air Force's No. 5 Aviation School in Wuwei City
34	PLA Air Force's No. 8 Aviation School in Shenyang
35	Renmin University of China
36	Shandong University
37	Shanghai Institute of Machinery
38	Shanghai Mechanical College (now part of University of Shanghai for Science and Technology)
39	Shanghai Normal University
40	Shijiazhuang Institute of Commerce
41	Teachers College in Jining District
42	Tsinghua University*
43	Union Correspondence University of Economic Management, Shanghai Campus
44	University of Science and Technology of China in Hefei City*
45	Xiamen University
46	Xi'an Army Academy in People's Liberation Army Military Academy
47	Yanbian University

Table A2.16: Value of Attending Top5 Universities

In this table we estimate regressions at the firm level for the full sample, including a dummy variable *Top5*, which equals one if at least one of the directors in the board attended one of the top 5 universities in China. The dependent variables are subsidies, cost of debt, sales growth and investment (Capex). Independent variables are lagged one year. All specifications include firm, year, industry, and province fixed effects.

Panel A: Subsidies

		Pre-2012	Post-2012
	(1)	(2)	(3)
Connection	0.002*	0.001	0.002*
	(0.001)	(0.003)	(0.001)
Top5	0.001*	-0.000	0.001*
	(0.000)	(0.003)	(0.001)
Controls	Yes	Yes	Yes
Observations	5,119	1,424	3,695
Adj. R-squared	0.541	0.467	0.581
FE	Yes	Yes	Yes

Panel B: Cost of Debt

		Pre-2012	Post-2012
	(1)	(2)	(3)
Connection	-0.000	0.003	-0.001
	(0.001)	(0.003)	(0.001)
Top5	0.001	0.002*	0.000
	(0.001)	(0.001)	(0.000)
Controls	Yes	Yes	Yes
Observations	5,119	1,424	3,695
Adj. R-squared	0.660	0.763	0.674
FE	Yes	Yes	Yes

Panel C: Growth and Investment

	Growth	Investment
	(1)	(2)
Connection	-0.060	-0.004
	(0.034)	(0.004)
Top5	0.031	0.002
	(0.034)	(0.003)
Controls	Yes	Yes
Observations	5,119	3,537
Adj. R-squared	0.240	0.488
FE	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Chapter 3

Elite CEOs: Political Connections and Pay in China

3.1 Introduction

Few corporate decisions draw as much attention and criticism as compensation structures. Setting the right remuneration is relevant for several reasons. First, it is the basic tool for the attraction and retention of talented managers in the firm. Second, it can incentivize managers to distribute resources efficiently and exert their best efforts to improve the firm's performance and shareholders' value thereby mitigating agency problems. In other words, pay policies can either improve or hamper value creation for all stakeholders. Unsuitable incentives can lead managers to reduce investment, cut necessary expenses, or even manipulate earnings in order to meet expectations leading to rent extraction (Bebchuk and Fried, 2006; Chu et al., 2019). Third, executive compensation directly affects income inequality, which has increased regularly in the last decades.

The question of which chief executive officer's (CEO) characteristics affect compensation drives research agendas in strategic management and corporate governance (Conyon and He, 2011). To our knowledge, the link between political connections and compensation requires more critical attention, despite fact of political connections being common in the corporate sector (Agrawal and Knoeber, 2001; Carney and Child, 2013; Faccio et al., 2006). Our findings show that ties to the Chinese political elite are relevant to understanding executive pay.

To address this question, we examine the relation between political connections and CEOs' pay in the context of 20th century China. We build on the resource-dependence theory, which explains how connected managers and directors ease access to the allocation of resources, improving the conditions of their firms. If this is the case, connections would create value for the firm and we would expect managers to be rewarded accordingly with higher pay. In fact, several studies show that politically connected firms obtain strategical

gains, such as government-controlled resources –land, subsidies, or financing terms (Alonso et al., 2022; Chen and Kung, 2019; Engelberg et al., 2012). Nonetheless, top politicians often place their friends in positions of power, even if these do not provide the firm with any competitive advantage. In these cases, the expected outcome is not clear. Politically connected friends can be placed in the C-suites in order to enforce the Party's agenda or as an exchange of favours. We expect these connected members to earn similar, if not lower, salaries to their non-connected peers. Actually, Chizema et al. (2015) find a negative relation between politically connected boards and top executive compensation and, they argue, connected directors are more aligned with the Party's norms and ideology, pushing for equality of income.

In recent years, politicians have included executive pay remuneration in their agendas. In the last decade, the European Union has set a limit to salaries in the banking sector, Switzerland has given shareholders a binding say-on-pay vote, and the U.K. has proposed imposing a wage ceiling. Chinese salary regulation deserves a careful analysis since rapid economic growth has driven the country to adopt corporate governance mechanisms similar to those in the United States or Europe. However, the Chinese political setting and their corporations are different from American or European ones. In China, the state has a say in executive compensation practices, and the specific nature of private firms and state-owned enterprises (SOEs) makes the Chinese compensation initiatives unique. Since 2005, seeking more transparent practices, all listed firms in China must report each individual executive's compensation. After the 2008 financial crisis, restrictions on excessive remuneration to executives were imposed. President Xi Jinping has recently expressed his concern about high incomes and announced an agenda to pursue "common prosperity".[19] However, the literature does not always support curbing executive compensation, as it can be ineffective or lead to unintended consequences (Bae et al., 2021; Lin, 2014): "The goal of pay reform should be to incentivise leaders to create long-run value for society, rather than reduce the level of pay" (Edmans, 2020).

Our measure of connection captures links to the Chinese political elite by pinpointing the existence of past educational ties. The network of friendly connections that develop at school or university can create opportunities, distribute power, or block or grant access to

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[19]https://www.theguardian.com/world/2021/aug/18/chinese-president-xi-jinping-vows-to-adjust-excessive-incomes-of-super-rich.

specific privileges. We highlight the difference between being friends with a member of the Chinese Politburo and other measures of connections commonly used in the literature, such as having past political experience in the Party, an organization with more than 90 million members. The appointments of political friends in the executive teams incentivize the exchange of favours, reinforcing the privileged elite group. We aim to further understand the mechanisms of the connections of the Chinese political elite, specifically through payout outcomes.

Our study makes several contributions to the existing literature. First, our measure of connections captures an elite linked to the twenty-five top politicians in China. Previous research has analysed how political connections in China help firms access higher subsidies and loans (Cheng and Wu, 2019; Wang, 2015), lower their debt (Khaw et al., 2019), or protect directors and managers against legal liabilities (Jia et al., 2019). Most of this research identifies political connections as executives who were former politicians or are affiliated to the Chinese Communist Party. However, the distinction between political elites and rank-and-file bureaucrats is crucial since these engage in different types of corruption (Ang, 2020) and may present different motivations. More similar to our measure of being connected to the elite, Alonso et al. (2022) find that politically connected firms impact the allocation of resources, such as subsidies and cost of debt; Griffin et al. (2021) show how political connections lower the probability of being prosecuted; and Chen and Kung (2019) study princelings getting land price discounts. We thus focus on the compensation outcomes of CEOs who are politically connected to the Chinese elite.

Second, while some studies have emphasized the fact that political connections are rooted in the Chinese institutional setting, to our knowledge few of them have focused on how these ties affect compensation. Conyon et al. (2015) and Wu et al. (2018) find that political connections, measured as previous government experience, positively affect firm performance and CEO compensation in a sample of Chinese listed firms. We distinguish between private and state-owned firms, with a diverse measure of connection. Also, our time span centers on the period after Xi Jinping's election and subsequent reforms, such as the Anti-Corruption Campaign of 2012. Chizema et al. (2015) examine the effect of politically connected directors on top executive pay, but not on the remuneration of the connected members themselves. Our project complements theirs as we study

compensation at an individual level. In the Chinese scenario, where politics shapes with business decisions, political connections can have far-reaching implications. In fact, we find that politically connected CEOs are paid significantly more than their non-connected colleagues. Importantly, we argue that this is not the case in state firms for ideological reasons that distance them from market-based mechanisms.

Finally, even though a growing number of articles increasingly clarify the practices of Chinese corporate governance, many questions remain unanswered (Jiang and Kim, 2015). The line between a planned and a market economy in China is often unclear, making politics an essential factor in the analysis of corporate decisions. There is much to say about the mechanisms of this crony corporate framework.

3.2   Literature and Hypothesis Development

We study private and state-owned firms separately, attending to each one's specificities. First, we focus on private listed firms. According to resource dependence theory, political connections may help firms gain access to key resources and information (Pfeffer and Salancik, 1978). Empirical research supports this theory, affirming that political connections add value and bring scarce resources into private firms. In the US, connected firms are more likely to be bailed out under financial constraints conditions (Boubakri et al., 2012; Faccio et al., 2006), be allocated procurement contracts (Goldman et al., 2013), and receive state subsidies, bank loans, and tax credits (Do et al., 2016). In China, politically connected private listed firms benefit from higher subsides (Alonso et al., 2022; Wang, 2015; Zhang and Jin, 2017), legal advantages (Jia et al., 2019), and higher price discounts (Chen and Kung, 2019). Investors acknowledge this beneficial relation and react positively to connected CEOs' appointment decisions (Conyon et al., 2015; He et al., 2014). Additionally, in state-led economies like the Chinese, where the state regulates business activity, political connections often shape corporate governance policies such as compensation (Liang et al., 2015). Indeed, Conyon et al. (2015) show that CEOs' political connections in Chinese listed firms are a more valuable tool in determining compensation than managerial talent. We argue that the CEOs connected to the elite can influence pay arrangements and demand higher compensation because of their ability to add value to the company through connections. In other words, as elite connections create value

in private firms, we expect politically connected CEOs to be rewarded with significantly higher pay than their non-connected peers.

State-owned firms, SOEs, have the government as their largest shareholder, making them naturally connected and a key player of the political apparatus. Directors receive appointments from the state, often for one of the following two reasons. First, politically-connected executives may monitor and ensure the implementation of government objectives that do not necessarily conform to market-based principles. SOEs are expected to maintain social stability by creating labour, even if sometimes excessive from an efficiency perspective. Thus, an SOE's primary goals do not always fully align with the criteria of efficiency, performance, and profit maximization (Wang and Shailer, 2022). For instance, Chen et al. (2011) find that political connections significantly decrease investment efficiency in SOEs, while having the opposite effect in private firms. Second, politicians may place their friends on the board of directors or in C-suites to grant them a position of power, simultaneously maintaining the power balance that guarantees regime stability (Zhang et al., 2017). As a consequence, politically-connected executives of SOEs resemble civil servants more than business colleagues in the private sector.

From the perspective of social comparison theory established by Festinger (1954), Chizema et al. (2015) posit that executive compensation in Chinese firms with outside directors who were former government officers or members of the some key political organisms, will conform to the norms of the existing political ideology that highlights income equality among all citizens in the nation. There is also a social pressure to keep salaries low in SOEs (Firth et al., 2007). Executive and directors' compensation in SOEs has received particular attention from the government and is heavily regulated (Lin, 2014). There are pay ceilings for executive compensation, and after a reform in 2013, the growth rate of executive compensation in SOEs cannot exceed that of ordinary employees (Bae et al., 2021). Consistent with these results and regulations, Chizema et al. (2015) find that firms with politically-connected directors pay lower levels of compensation to top executives. This leads to our first and second hypotheses.

H1a. CEOs connected to the elite in private firms earn higher salaries.

H1b. CEOs connected to the elite in SOEs do not earn higher salaries.

H2a. CEOs gaining an elite connection in private firms increase their salaries.

H2b. CEOs gaining an elite connection in SOEs do not significantly increase their salaries.

In line with agency theory, which states that managers are self-serving and the link between compensation and performance aligns their incentives with those of shareholders, a firm's pay structures should reflect its performance. Many studies have shown a positive relation between executive pay and performance in China (Conyon et al., 2015; Firth et al., 2006, 2007). However, the existence of a political connection may protect managers or directors from a possible salary reduction in the case of unsatisfactory performance. Chizema et al. (2015) find evidence in favour of the moderating effect of political connections when analysing compensation and performance. Therefore, we expect political connections to moderate the relationship between executive compensation and performance, especially in SOEs, as these firms do not follow market-based principles. We test the following hypotheses.

H3a. Elite-connected CEOs do not affect the strength of the links between pay and performance in private firms.

H3b. Elite-connected CEOs present weaker links between pay and performance in SOEs.

Networks matter not only for compensation but for other aspects of individual career development, such as turnover decisions (Fich and Shivdasani, 2006; Liu, 2014; Renneboog and Zhao, 2020). Based on our previous distinction between private and state firms in China, we would expect connected CEOs in private firms to have similar turnover rates as their non-connected peers. However, connected CEOs in SOEs may be given their positions as part of a political strategy, and therefore experience lower turnover rates. Thus, we propose our fourth hypotheses.

H4a. Elite connections do not affect CEO turnover outcomes in private firms.

H4b. Elite connections decrease probability of CEO turnover in SOEs.

3.3   Data

To test our hypotheses, we collected Chinese Politburo members' educational and personal information from China Vitae.[20] Next, we obtained data from the China Stock Market and Accounting Research (CSMAR) database for firms listed on the two Chinese stock markets, Shanghai and Shenzhen. CSMAR provides both CEOs' personal information and company characteristics. We merged both databases to build our main independent variable Elite Connection.

CEOs' individual wage information is only available as of 2005, after the Government passed a law obliging companies to disclose it. Consequently, we focus only on the 17th, 18th, and 19th Politburos who started running the country after 2005. Politburo members are elected every 5 years, and new Politburos were composed in 2007, 2012, and 2017. Thus, our data spans 2007 until 2019, pinpointing CEO connections to the members of the three Chinese Politburos.

Firms in the finance sector have been excluded from our data, as per the general practice in the literature, because of their specific characteristics. We also dropped special treatment firms, companies the year after their IPO, and those leveraged above 100% or with negative operating revenues: these firms are usually undergoing financial distress and operate under nonstandard circumstances. We end up with 6,799 CEO-year observations, which correspond to 1,432 companies. 4,833 of our CEO-year observations refer to CEOs working for private companies while 1,836 to state-owned enterprises. Table 3.1 reports the summary statistics of our data. We have split the sample into private firms (Panel A) and state firms (Panel B).

The CEO's pay is measured as the natural logarithm of the total salary, which includes fixed pay, bonus, and allowances. Therefore, CEOs in private firms receive, on average, an annual compensation of 877,000 yuan. In our sample, CEOs working for a state company earn, on average, 973,000 yuan. CEOs are slightly younger in private firms than in state firms, even though the difference is less than three years (48 and 50 years respectively). There are more female CEOs in the private firms: while 92% of CEOs in private firms are male, the percentage of male CEOs in state companies increases to 96.5%. The proportion

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[20]http://www.chinavitae.com/index.php. This database is operated by the Carnegie Endowment for International Peace and has been used by Jia et al. (2015).

of CEOs that are also board chairmen (Dual CEO) is higher in private companies: 41%
as opposed to 12% in state companies. However, the latter numbers might be misleading
since chairmen in state-owned companies generally assume several tasks assigned to the
CEO, becoming the de facto manager of the company (Jiang and Kim, 2020).

As for board characteristics, state firms have, on average, between one or two directors more
than private firms do (11 people as opposed to 9.6 in private firms); and the independence
ratio in private firms is slightly higher. State firms are also larger than private firms. This
is explained by the well-known existence of mega-large SOEs companies. State companies
are more leveraged than private firms (0.526 versus 0.386), to a large extent because
they enjoy preferential access to debt, a fact which has been widely documented in the
literature (Harrison et al., 2019; Huang et al., 2020; Lardy, 2019).

Table 3.1: Descriptive Statistics

This table describes the sample of Chinese private listed firm-year observations. Panel A describes
the characteristics of private firms. Panel B describes state owned firms. All accounting and
board variables are obtained from CSMAR. The CEO Pay and Size are measured as the natural
logarithm of monetary values in Chinese ¥.

	Panel A: Private Firms					Panel B: State Owned Firms				
	N	Mean	Max	Min	SD	N	Mean	Max	Min	SD
CEO Characteristics (person-year)										
CEO Pay	4,819	13.328	15.92	7.784	0.821	1,826	13.421	15.92	8.81	0.849
CEO Age	4,819	48.331	75	27	6.36	1,826	49.994	72	26	5.155
CEO Gender	4,819	0.922	1	0	0.269	1,826	0.964	1	0	0.185
Dual CEO	4,819	0.408	1	0	0.491	1,826	0.12	1	0	0.326
Oversea	4,819	0.183	1	0	0.387	1,826	0.106	1	0	0.308
Board Characteristics (firm-year)										
Board Size	4,819	9.696	26	4	2.441	1,826	11.14	26	5	2.878
Board Independence	4,819	0.391	0.75	0.188	0.075	1,826	0.37	0.8	0.2	0.074
Firm Characteristics (firm-year)										
Size	4,819	21.726	26.739	18.147	1.115	1,826	22.082	28.179	18.147	1.696
Leverage	4,819	0.386	1.765	0.022	0.216	1,826	0.526	1.765	0.05	0.192
Return on Assets (ROA)	4,819	0.035	0.296	-0.758	0.096	1,826	0.028	0.239	-0.724	0.063

3.3.1   Dependent Variables

We use two main dependent variables: total compensation (CEOpay) and turnover.
CEOpay is the natural logarithm of total CEO's salary (salary, bonus, and allowance).
This variable has been previously used in the literature to analyze CEO compensation
(Chen and Keefe, 2018; Chizema et al., 2015; Conyon and He, 2016). To calculate this, we
use use cash compensation and omit equity compensation, such as stocks or options, since

it is an unusual practice in China (Bae et al., 2021; Firth et al., 2006). As Chinese firms are not required to report different components of salary, we are not able to disentangle fixed from variable pay. Turnover is a dummy variable that equals one if the CEO has changed in year t. Both variables have been previously used in the literature (Conyon et al., 2015; Conyon and He, 2016; Wu et al., 2018).

3.3.2   Independent Variables

Elite Connection, the independent variable of interest we focus on, signals a link between a CEO and a a member of the Politburo. We consider that a CEO is connected if he has studied the same degree type (bachelor, master, or PhD) in the same university within a four-year window period as any member of the Politburo at a given year. We acknowledge that our variable has some noise by construction: while we increase the probability of identifying Politburo friends at university, we might be considering as well other people who did not become friends. Thus, our results should be interpreted as a lower bound.

We control for CEOs' age and gender, as male and older CEOs have been shown to earn higher salaries. We also add a dummy Dual CEO, which takes value one if the CEO is also the chairman of the board. Additionally, we add several control variables at the firm level. We include board size and independence ratio as board controls. Board size is the number of directors sitting on a board and Board Independence Ratio is measured as the ratio of independent directors over the total number of directors. It has been established that linking managerial compensation to firm performance constitutes an incentive to align managers and shareholders goals. We use return over assets (ROA) as an indicator of firm performance. We also control for the size of the company, as we expect larger firms to pay higher salaries due to the higher complexity of their management. We measure size as the natural logarithm of total assets. Finally, we include the leverage ratio of a firm.

3.4   Methodology

To test our hypothesis, we use panel regression analysis with firm, year, and industry fixed effects. Specifically, we estimate the following compensation model:

$$CEOpay_{i,f,s,t} = \gamma_0 + \gamma_1 EliteConnection_{i,f,s,t-1} + \gamma'_2 x_{\mathbf{i,f,s,t-1}} + \gamma'_3 \omega_{\mathbf{f,s,t-1}}$$

$$+\theta_f + \delta_s + \phi_t + \epsilon_{f,s,t}$$

accounts for the natural logarithm of the salary paid to individual i, by firm f, in industry s, in year t. We estimate a linear OLS regression with panel fixed effects. Our main independent variable is Elite Connection, a dummy variable that equals one if the individual i is connected to a member of the Politburo in power in year t. The coefficient of interest is γ_1. If connected CEOs indeed enjoy higher compensation schemes, we expect this coefficient to be significantly positive. When our main dependent variable is turnover, we use a logit model with year and industry fixed effects to estimate the probability of the CEO leaving the firm.

We follow a control function approach to account for other variables that may affect the salary. The vectors $x_{(i,f,s,t)}$ and $\omega_{(f,s,t)}$ contain control variables at the individual and firm level respectively. Finally, we control for time-invariant specific characteristics that may be correlated with omitted explanatory variables by employing fixed-effect specifications (firm θ_f, industry δ_s, and year ϕ_t)[21]. Robust standard errors are clustered by firm, industry, and year.

Given the different nature and motivations between private and state-owned companies in China, we split the sample in every analysis. We identify firms as SOEs when the state is the ultimate shareholder.

Additionally, we conduct the regressions on a matched sample to alleviate concerns about the differences of connected and non-connected firms that could bias our results. We match connected and non-connected firms from the same industry, year, and state ownership, reducing the differences of observable characteristics: size, leverage, ROA, board size, and board independence ratio.[22]

Finally, we deal with issues of endogeneity that may arise from omitted variables that affect both performance and connections, or the fact that connected CEOs may be placed

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[21]Note that when estimating the logit model, we only add industry and year fixed effects.
[22]We also follow a one-to-one propensity score matching strategy without replacement and results hold.

for specific reasons in firms that pay higher salaries. We mitigate this concern by exploiting an exogenous shock: the arrival of a connection to a firm due to a Politburo change, without experiencing any CEO turnover. We exploit this exogenous change and conduct a difference-in-differences analysis.

3.5   Results

We test how elite connections impact compensation in private firms and present the results in Table 3.2. Firms with larger size and lower leverage show higher compensation levels. Consistent with previous research, salaries increase with ROA, with the age of the CEO, and with CEO's previous international work experience (Liang et al., 2015). The main dependent variable is CEOpay. Elite connections significantly increase CEO's total compensation in private firms: connected CEOs earn, on average, 122,000 yuan more per year. In the case of SOEs, we find a positive but non-significant relation between elite-connected CEOs and pay. As we discussed earlier, CEOs in state firms are not the primary decision-makers. The government, as the controlling shareholder, delegates this responsibility to the chair, whose main incentive is political (Jiang and Kim, 2020). Our results validate hypotheses 1.

We next analyze the effect of the gain of a connection on the change of CEO's salary. Our first concern is to distinguish between firms that did not experience a CEO's turnover and those which did, this is, the former gain a connection at the CEO level whereas the later gain a connection at the firm level. We first look at firms that did not experience a turnover but where the CEOs gained a connection. Results are shown in Panel A of Table 3.3. This analysis reinforces the causality effect as the only change in the case of no turnover is the elite connection: the CEO does not change but, as government changes, she becomes connected with a new member of the Politburo. A positive and significant change in pay for those CEOs that gain a connection in private firms are noted in columns (1) and (2), supporting our hypotheses 2a. As expected, results are not significant for SOEs. Table 3.3, Panel B, show the results for those firms with a CEO turnover. Though no conclusive evidence exists for private firms, in the case of SOEs, the coefficient is positive and significant in the matched sample (column (4)). Interpretations of these results should be nuanced, as firms that change their CEOs may present incentives,

Table 3.2: Elite Connections and CEO Pay

In this table we estimate regressions at the individual
CEO level. The dependent variable is the CEO pay in t.
The independent variable of interest is *EliteConnection*,
a binary variable equal to 1 if the CEO is connected to
a member of the Politburo in year t, and zero otherwise.
Columns (1) and (3) present regressions with the full
sample, whereas columns (2) and (4) show results for the
matched sample. All specifications include firm, year, and
industry fixed effects.

VARIABLES	Private CEOpay (1)	Private CEOpay (2)	SOE CEOpay (3)	SOE CEOpay (4)
Elite Connection	0.226**	0.215**	0.025	0.062
	(0.081)	(0.075)	(0.055)	(0.078)
Size	0.133***	0.183***	0.204***	0.366***
	(0.028)	(0.047)	(0.045)	(0.088)
Leverage	-0.214***	0.040	-0.504*	-0.276
	(0.064)	(0.101)	(0.235)	(0.278)
ROA	0.482***	0.525*	0.615	0.606
	(0.144)	(0.258)	(0.599)	(0.409)
Board Indep. Ratio	0.022	0.207	0.530**	0.022
	(0.139)	(0.212)	(0.192)	(0.466)
Board Size	0.000	0.000	-0.012	-0.011
	(0.006)	(0.005)	(0.007)	(0.012)
CEO Age	0.001	0.010	0.000	0.001
	(0.002)	(0.006)	(0.002)	(0.001)
Dual CEO	-0.020	0.042	0.116**	0.055
	(0.038)	(0.082)	(0.040)	(0.162)
CEO Gender	0.097	0.292	-0.113	-0.054
	(0.104)	(0.169)	(0.106)	(0.178)
Oversea	0.071**	0.166**	0.138*	0.064
	(0.032)	(0.057)	(0.072)	(0.124)
Constant	00.348***	8.334***	9.967***	5.370**
	(0.615)	(1.276)	(1.037)	(1.957)
Observations	4,663	1,072	1,748	593
Adj. R-squared	0.750	0.720	0.737	0.772
Fixed Effects	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

financial or strategical motives, apart to connections, that affect top management pay. We also analyse the effect in pay of losing a connected CEO and results are negative and significant (at a 10% level) for private firms, as we observe in table A3.1 in the Appendix.

Hypothesis 3 predicts that elite connections weaken the relation between performance and compensation. We show the results in Table 3.4. Our measure of performance is return on assets (ROA). We observe a positive, though non-significant, relation between performance and compensation in all regressions, except in the full sample of SOEs in column (3). This is not surprising, considering that SOEs' main goal is not performance. The interaction between elite connection and performance ($EliteConnxROA$) is negative in all specifications, although not significant in the case of connected CEOs in private firms. Overall, our results support hypotheses 3, suggesting a protection of salaries, that do not increase with ROA in the presence of an elite connection of the CEO.

Our fourth hypotheses proposes that elite connections influenced not only pay outcomes, but also the probability of turnover. Table 3.5 shows that elite connections are negatively related to turnover events, with the coefficient significant at a 10% level only in the matched sample of the SOEs (column (4)). CEOs who are connected to the elite are less likely to leave the company, an observation consistent with the idea of connected CEOs being placed in SOEs in order to supervise political goals or ensure a position of power. The interaction between elite connection and performance is negative for private firms and positive for state-owned firms. This indicates that connected CEOs in private firms are less likely to be replaced if performance outcomes improve, while connected CEOs in SOEs do not show the same correlation. The coefficient is positive as we show in columns (3) and (4), suggesting that connected CEOs in SOEs are more likely to be replaced if performance increases, or less likely to experience turnover when it is low.

A major concern in our results is endogeneity. Our measure of connections excludes reverse causality in the sense that the ties examined predate the CEO's position (higher salaries cannot affect the likelihood of a person being connected); however, connected CEOs may be placed in management positions where they earn higher pay. In addition to the baseline results of the change in connections, that help us eliminate the reverse causality concern, we further address the endogeneity issues of omitted variables affecting both elite connections and pay using a difference-in-differences (DiD) approach.

Table 3.3: Change in Connections and CEO Pay

In this table we estimate regressions at the individual CEO level. The dependent variable is the the change in CEO pay from $t-1$ to t. The independent variable of interest is *DeltaEliteConn*, a binary variable equal to 1 if the CEO has acquired a connection in year t, and zero otherwise. We distinguish between gain of connections without turnover (Panel A) and with turnover (Panel B). Columns (1) and (3) present regressions with the full sample, whereas columns (2) and (4) show results for the matched sample. All specifications include firm, year, and industry fixed effects.

Panel A: No turnover

VARIABLES	Private DeltaPay (1)	Private DeltaPay (2)	SOE DeltaPay (3)	SOE DeltaPay (4)
Delta EliteConn	0.131*	0.180**	-0.088	-0.083
	(0.072)	(0.072)	(0.130)	(0.184)
Delta_Size	0.042	0.077	0.054***	0.132
	(0.044)	(0.071)	(0.017)	(0.107)
Delta_Leverage	-0.001	0.213	-0.178*	-0.023
	(0.061)	(0.131)	(0.105)	(0.241)
Delta_ROA	0.101	0.395	0.499	0.647
	(0.177)	(0.409)	(0.419)	(0.501)
Delta_boardindep	0.011	0.044	0.425***	0.216
	(0.087)	(0.100)	(0.111)	(0.295)
Delta_boardsize	-0.004	0.003	-0.012**	-0.014*
	(0.004)	(0.005)	(0.004)	(0.008)
Delta_oversea	-0.068	0.001	0.018	0.227
	(0.108)	(0.130)	(0.217)	(0.333)
Constant	0.102***	0.096***	0.082***	0.054***
	(0.005)	(0.009)	(0.003)	(0.014)
Observations	2,629	662	1,059	379
Adj. R-squared	-0.025	0.019	-0.033	-0.041
Fixed Effects	Yes	Yes	Yes	Yes

Panel B: Turnover

VARIABLES	Private DeltaPay (1)	Private DeltaPay (2)	SOE DeltaPay (3)	SOE DeltaPay (4)
Delta EliteConn	-0.029	0.054	0.440	1.194***
	(0.215)	(0.232)	(0.514)	(0.357)
Delta_Size	0.094	0.141	0.349***	0.934**
	(0.072)	(0.105)	(0.058)	(0.296)
Delta_Leverage	-0.232	-0.472	-1.213***	-1.694**
	(0.202)	(0.306)	(0.338)	(0.551)
Delta_ROA	0.126	0.373*	-0.155	-1.774
	(0.113)	(0.197)	(0.818)	(1.166)
Delta_boardindep	0.253	1.729**	0.441	0.454
	(0.176)	(0.590)	(0.326)	(0.844)
Delta_boardsize	-0.004	-0.036	-0.011	-0.005
	(0.010)	(0.021)	(0.009)	(0.011)
Delta_oversea	0.047	0.081	-0.147	-1.049**
	(0.175)	(0.379)	(0.415)	(0.347)
Constant	0.067***	0.043	0.016	-0.030
	(0.011)	(0.044)	(0.017)	(0.029)
Observations	590	162	227	94
Adj. R-squared	-0.156	-0.181	-0.241	-0.393
Fixed Effects	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.4: CEO Pay and Performance

In this table we estimate regressions at the individual CEO level. The dependent variable is the CEO pay in t. The independent variables of interest are *EliteConnection* and its interaction with performance *EliteConnxROA*. Columns (1) and (3) present regressions with the full sample, whereas columns (2) and (4) show results for the matched sample. All specifications include firm, year, and industry fixed effects.

VARIABLES	Private CEOpay (1)	Private CEOpay (2)	SOE CEOpay (3)	SOE CEOpay (4)
Elite Connection	0.228**	0.216**	0.025	0.078
	(0.077)	(0.073)	(0.060)	(0.076)
EliteConnxROA	-0.191	-0.345	-1.795**	-2.484**
	(0.487)	(0.417)	(0.753)	(0.875)
Size	0.133***	0.183***	0.212***	0.405***
	(0.028)	(0.047)	(0.047)	(0.082)
Leverage	-0.213***	0.047	-0.503**	-0.339
	(0.065)	(0.109)	(0.236)	(0.291)
ROA	0.491***	0.583*	0.728	1.001**
	(0.152)	(0.277)	(0.618)	(0.367)
Board Indep. Ratio	0.022	0.210	0.528**	-0.025
	(0.140)	(0.215)	(0.187)	(0.473)
Board Size	0.000	0.000	-0.012	-0.011
	(0.006)	(0.005)	(0.007)	(0.012)
CEO Age	0.001	0.010	-0.000	0.000
	(0.002)	(0.006)	(0.002)	(0.006)
Dual CEO	-0.020	0.041	0.117**	0.054
	(0.038)	(0.084)	(0.039)	(0.155)
CEO Gender	0.097	0.292	-0.115	-0.063
	(0.104)	(0.169)	(0.107)	(0.170)
Oversea	0.070*	0.164**	0.149*	0.098
	(0.032)	(0.058)	(0.078)	(0.127)
Constant	10.350***	8.339***	8.805***	4.524**
	(0.616)	(1.274)	(1.090)	(1.779)
Observations	4,663	1,072	1,748	592
Adj. R-squared	0.750	0.720	0.737	0.774
Fixed Effects	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.5: Elite Connections and CEO Turnover

In this table we estimate regressions at the individual CEO level. The dependent variable is the CEO turnover probability. The independent variables of interest are *EliteConnection* and its interaction with performance *EliteConnxROA*. Columns (1) and (3) present regressions with the full sample, whereas columns (2) and (4) show results for the matched sample. All specifications include firm, year, and industry fixed effects.

VARIABLES	Private Turnover (1)	Private Turnover (2)	SOE Turnover (3)	SOE Turnover (4)
Elite Connection	-0.555	-0.682	-0.504	-0.920*
	(0.514)	(0.570)	(0.518)	(0.528)
EliteConnxROA	-5.157	-7.929*	12.084	13.500*
	(3.224)	(4.633)	(8.156)	(7.965)
Size	-0.189**	-0.022	-0.001	-0.125
	(0.088)	(0.199)	(0.069)	(0.127)
Leverage	-0.290	0.753	0.126	1.203
	(0.432)	(0.882)	(0.547)	(0.942)
ROA	0.269	0.572	-3.619**	-4.814
	(0.775)	(1.742)	(1.549)	(2.981)
Board Indep. Ratio	-1.205	0.672	-1.953*	0.268
	(0.865)	(1.814)	(1.125)	(2.171)
Board Size	0.049*	-0.044	0.017	0.020
	(0.026)	(0.056)	(0.029)	(0.047)
CEO Age	0.006	0.023	0.049***	0.100***
	(0.011)	(0.021)	(0.018)	(0.033)
Dual CEO	-0.160	-0.172	0.999***	0.957*
	(0.150)	(0.327)	(0.248)	(0.494)
CEO Gender	-0.028	-0.777	1.318**	1.502*
	(0.268)	(0.558)	(0.584)	(0.802)
Oversea	-0.317*	-0.668	-0.146	-0.524
	(0.191)	(0.409)	(0.282)	(0.488)
Constant	3.237	0.107	-5.305***	-6.262**
	(2.308)	(4.659)	(1.804)	(2.970)
Observations	4,041	915	1,610	535
Number of companies	1,028	172	342	82
Year and Industry FE	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

In the years chosen for our analysis, the Politburo changed its composition twice: in 2012 and in 2017. Some politicians remained unchanged, while others left and were replaced by new members. These changes allowed us to identify CEOs who gain connections. The sample is small: there are nine CEOs in private firms who gained the connection.[23] These CEOs were already in the firm, meaning that there was no turnover and the only change is the connection. We matched each CEO who became connected with an unconnected one who works in firms in the same industry, year, and with similar characteristics. After we identified treatment and control firms, we considered the years of the event (year 0 is the year the CEO gains the connection) and conduct the DiD analysis. We ruled out pre-existing trends of CEO pay previous to the event of gaining a connection in treated firms. Figure 3.1 shows the CEO's mean salary of CEOs gaining a connection and CEOs who do not become connected around the event year.

The results of the DiD analysis are reported in Table 3.6. There are two dummy variables: Elite Connection and Post. The interaction between the two is *EliteConnection*Post*: it reports the changes in the CEO pay after gaining a connection relative to the non-connected matched CEOs. After gaining an elite connection, CEOs earn significantly higher salaries, as we observe in the positive coefficients of *EliteConnection*Post* in columns (1) and (2).

3.5.1   Robustness Tests

Attending the Same Universities

In order to alleviate identification concerns of the political connections, we run the regressions with a dependent variable named University, a dummy variable that takes value one if the CEO attended the same university as a Politburo member, but not at the same time, nor the same degree type. As we observe in Table 3.7, significant effects are lost or reversed. Additionally, this means that our results are not driven by high quality education of the universities where the top 25 politicians of the country studied.

Alternative Measure of Performance

We repeated the analysis using an alternative measure of performance. We privilege

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[23]We do not follow the same methodology for SOEs as we do not claim causality for higher CEO pay in state firms.

Table 3.6: Difference-in-different Analysis

This table shows the difference-in-difference analysis results. Treatment refers to firms that gain a connection due to the Politburo change and experience no turnover. Post is a dummy variable equal to 1 for the years after gaining the connection, 0 otherwise. Column (1) includes industry fixed effects, column (2) includes industry and year fixed effects.

VARIABLES	CEOpay (1)	CEOpay (2)
Elite Connection	-0.003	0.026
	(0.089)	(0.083)
Post	0.114	0.318*
	(0.165)	(0.148)
EliteConnection*Post	0.438***	0.467***
	(0.048)	(0.048)
Size	0.219**	0.225**
	(0.058)	(0.050)
Leverage	-1.401*	-1.424*
	(0.597)	(0.602)
ROA	-0.136	-0.343
	(0.465)	(0.538)
Board Indep. Ratio	0.359	0.549
	(0.621)	(0.529)
Board Size	-0.006	-0.008
	(0.026)	(0.022)
CEO Age	-0.002	-0.012
	(0.024)	(0.022)
Dual CEO	-0.340*	-0.285*
	(0.143)	(0.128)
CEO Gender	1.529***	1.594***
	(0.131)	(0.115)
Oversea	-0.290	-0.343*
	(0.202)	(0.151)
Constant	7.484**	7.592**
	(2.432)	(2.154)
Observations	133	133
Adj. R-squared	0.684	0.700
Year FE	No	Yes
Industry FE	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.7: Same University and CEO Pay

In this table we estimate regressions at the individual CEO level. The dependent variable is the CEO pay in t. The independent variable of interest is *University*. Columns (1) and (3) present regressions with the full sample, whereas columns (2) and (4) show results for the matched sample. All specifications include firm, year, and industry fixed effects.

VARIABLES	Private CEOpay (1)	Private CEOpay (2)	SOE CEOpay (3)	SOE CEOpay (4)
University	0.026	-0.060	-0.054	0.057
	(0.077)	(0.073)	(0.060)	(0.076)
Size	0.130***	0.180***	0.201***	0.370***
	(0.027)	(0.047)	(0.042)	(0.088)
Leverage	-0.222***	-0.001	-0.495*	-0.276
	(0.063)	(0.132)	(0.239)	(0.269)
ROA	0.486***	0.540*	0.602	0.594
	(0.158)	(0.296)	(0.587)	(0.378)
Board Indep. Ratio	0.023	0.213	0.524**	0.030
	(0.148)	(0.229)	(0.193)	(0.490)
Board Size	0.000	0.000	-0.011	-0.012
	(0.005)	(0.004)	(0.007)	(0.012)
CEO Age	0.002	0.012*	0.000	0.002
	(0.003)	(0.006)	(0.002)	(0.005)
Dual CEO	-0.020	0.047	0.111**	0.057
	(0.039)	(0.090)	(0.038)	(0.163)
CEO Gender	0.101	0.306	-0.097	-0.073
	(0.104)	(0.177)	(0.108)	(0.198)
Oversea	0.070**	0.139**	0.133*	0.071
	(0.032)	(0.067)	(0.072)	(0.127)
Constant	10.367***	8.326***	9.022***	5.238**
	(0.599)	(1.270)	(0.991)	(1.941)
Observations	4,663	1,072	1,748	593
Adj. R-squared	0.749	0.718	0.737	0.772
Fixed Effects	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

return on sales (ROS) because measures such as return on equity (ROE) or ROA decrease with equity issuances (Bae et al., 2021; Li et al., 2019), a practice that recurs in Chinese firms in our sample period. Table 3.8 demonstrates the results: interaction between elite connection and ROS (*EliteConnxROS*) remains strongly negative and significant in SOEs. However, in private firms, the sign reverses and becomes positive, although only significant in the full sample. This supports the practice of compensation of CEOs in private firms for improving performance measures, and those in SOEs protected by political connections, despite performance outcomes.

Table 3.8: Alternative Measure of Performance

In this table we estimate regressions at the individual CEO level. The dependent variable is the CEO pay in t. The independent variables of interest are *EliteConnection* and its interaction with an alternative measure of performance *EliteConnxROS*. Columns (1) and (3) present regressions with the full sample, whereas columns (2) and (4) show results for the matched sample. All specifications include firm, year, and industry fixed effects.

VARIABLES	Private CEOpay (1)	Private CEOpay (2)	SOE CEOpay (3)	SOE CEOpay (4)
Elite Connection	0.237**	0.219**	0.032	0.079
	(0.080)	(0.071)	(0.051)	(0.076)
EliteConnxROS	-0.119*	0.062	-0.336**	-0.676***
	(0.066)	(0.093)	(0.127)	(0.138)
Size	0.140***	0.186***	0.214***	0.392***
	(0.029)	(0.049)	(0.045)	(0.082)
Leverage	-0.267***	0.008	-0.601**	-0.289
	(0.082)	(0.091)	(0.265)	(0.279)
ROS	0.097***	0.140*	0.010	0.276**
	(0.030)	(0.066)	(0.111)	(0.105)
Board Indep. Ratio	0.035	0.223	0.559**	-0.030
	(0.142)	(0.223)	(0.190)	(0.483)
Board Size	0.000	0.002	-0.013*	-0.012
	(0.006)	(0.006)	(0.007)	(0.012)
CEO Age	0.001	0.010	0.001	0.002
	(0.001)	(0.006)	(0.002)	(0.005)
Dual CEO	-0.019	0.044	0.123**	0.056
	(0.040)	(0.086)	(0.041)	(0.160)
CEO Gender	0.098	0.293	-0.111	-0.062
	(0.105)	(0.167)	(0.104)	(0.170)
Oversea	0.073**	0.165**	0.144*	0.090
	(0.033)	(0.055)	(0.070)	(0.118)
Constant	10.219***	8.281***	8.780***	4.761**
	(0.618)	(1.309)	(1.064)	(1.812)
Observations	4,656	1,069	1,748	592
Adj. R-squared	0.748	0.717	0.736	0.773
Fixed Effects	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

3.6   Conclusion

This paper examines the effect of elite connections on CEO pay and turnover decisions, using a sample of Chinese listed firms and separate between private and state-owned companies from 2007-2019.

Our findings show that CEOs of private listed firms benefit from significantly higher salaries, consistent with the resource dependence theory, whereas the effect is not significant in SOEs. We argue that connected CEOs in Chinese private firms are rewarded according to market-based principles and their salaries are similar to their non-connected counterparts as a similar a level of performance. However, connected CEOs in SOEs are less likely to experience turnover, and their compensation (turnover probability) increases (decreases) when performance decreases.

We claim our measure of connections excludes reverse causality and we observe an exogenous shock that identifies the gain of a connection when there is no turnover in a firm. This event allows us to observe that pay significantly increases in private firms when the CEO becomes connected to a member of the Politburo in power.

This paper not only contributes to the growing literature on corporate governance. It suggest that political connections to the elite can shape the distribution of resources in the economy. Our findings also show how the role of connections changes depending on the ultimate shareholders' purpose of the company as connected CEOs respond differently in private and state-owned enterprises.

3.7   Appendix: Additional Tables and Empirical Results

The difference-in-differences methodology (DiD) relies in the parallel trend assumption. To test this assumption, we run the DiD regression adding dummies for the leads and lags of the year that a firm belonging to the treatment group gains a connection. Table A3.2 shows the regression results. There is no significant difference between the salary of CEOs of treated and control firms the years before getting the connection. By contrast, CEOs of treated firms become significantly higher the years after gaining the connection.

**Figure 3.1:** Gaining a Connection and CEO's Pay
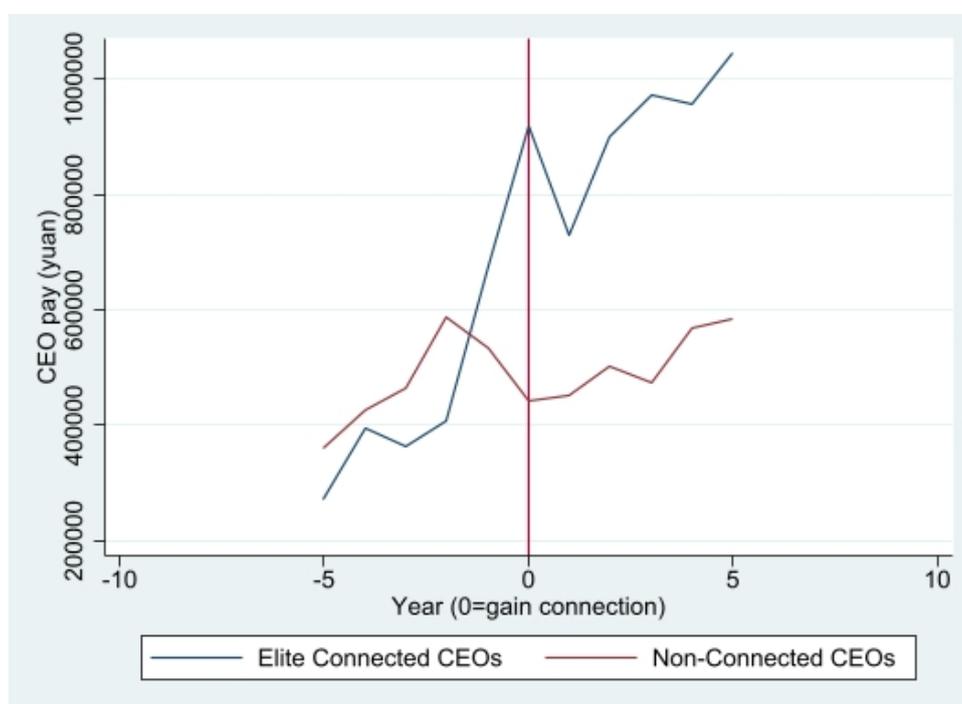
Figure 3.1 shows the CEO's pay (in yuan) for treated and control firms the years before and after gaining the connection.

Figure 3.2: Pre-trends analysis
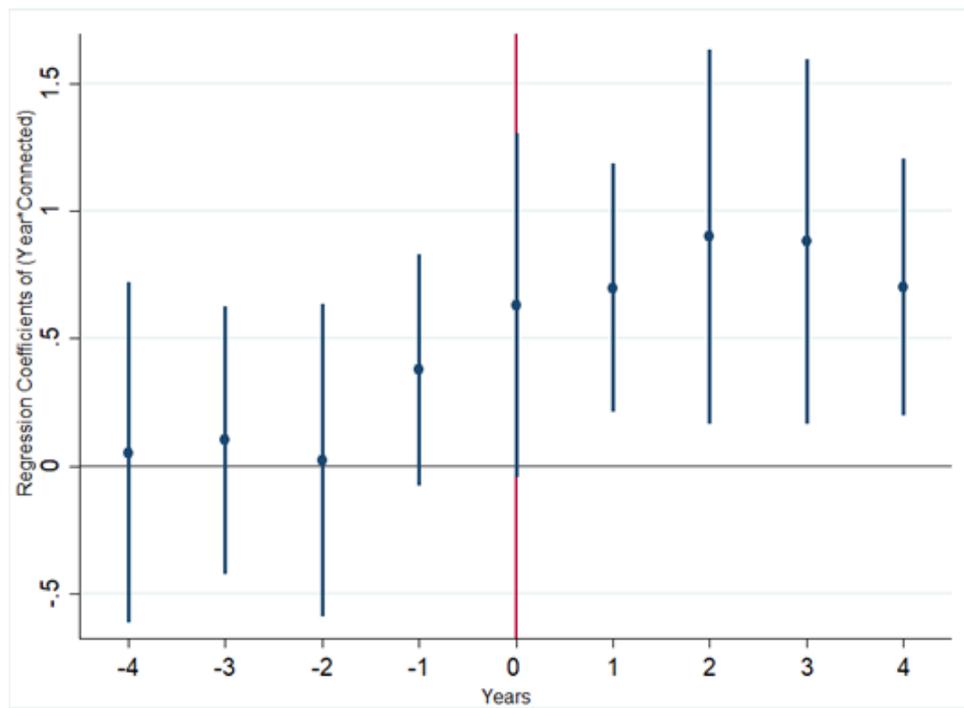
Figure 3.2 plots the coefficients of treated firms before and after gaining the connection.

Table A3.1: Change in Connections: Lost Connections

In this table we estimate regressions at the individual CEO level. The dependent variable is the the change in CEO pay from $t-1$ to t. The independent variable of interest is *DeltaEliteConn*, a binary variable equal to 1 if the CEO becomes non-connected in year t, and zero otherwise. We distinguish between loss of connections without turnover (Panel A) and with turnover (Panel B). Columns (1) and (4) present regressions with the full sample, whereas columns (2) and (5) show results for the matched sample. Column (3) presents the results for a p-score matching. All specifications include firm, year, and industry fixed effects.

Panel A: No turnover

VARIABLES	Private DeltaPay (1)	Private DeltaPay (2)	Private DeltaPay (3)	SOE DeltaPay (4)	SOE DeltaPay (5)
Delta LostConn	-0.149*	-0.175	-0.318*	omitted	omitted
	(0.071)	(0.122)	(0.151)		
Delta_Size	0.042	0.077	-0.0126	0.054***	0.133
	(0.044)	(0.071)	(0.077)	(0.017)	(0.106)
Delta_Leverage	-0.004	0.200	-0.880*	0.176	-0.026
	(0.062)	(0.141)	(0.389)	(0.103)	(0.246)
Delta_ROA	0.102	0.403	0.137	0.496	0.638
	(0.177)	(0.416)	(0.167)	(0.420)	(0.509)
Delta_boardindep	0.012	0.045	0.137	0.496	0.638
	(0.086)	(0.100)	(0.263)	(0.111)	(0.297)
Delta_boardsize	-0.004	0.003	0.024**	-0.012**	-0.014*
	(0.004)	(0.004)	(0.009)	(0.004)	(0.008)
Delta_oversea	-0.069	-0.004	0.458*	0.019	0.227
	(0.107)	(0.121)	(0.209)	(0.217)	(0.334)
Constant	0.103***	0.099***	0.124***	0.082***	0.053***
	(0.006)	(0.008)	(0.011)	(0.003)	(0.014)
Observations	2,629	662	123	1,059	379
Adj. R-squared	-0.026	0.015	-0.256	-0.032	-0.038
Fixed Effects	Yes	Yes	Yes	Yes	

Panel B: Turnover

VARIABLES	Private DeltaPay (1)	Private DeltaPay (2)	Private DeltaPay (3)	SOE DeltaPay (4)	SOE DeltaPay (5)
Delta LostConn	-0.343**	-0.544**	-0.563***	-0.349	-0.118
	(0.140)	(0.238)	(0.083)	(0.199)	(0.212)
Delta_Size	0.092	0.342***	-0.421	0.140	0.646*
	(0.073)	(0.051)	(0.571)	(0.105)	(0.294)
Delta_Leverage	-0.243	-1.018**	-1.262	-0.483	-0.822
	(0.173)	(0.412)	(1.351)	(0.289)	(0.726)
Delta_ROA	0.150	-0.168	0.831	0.415**	-1.289
	(0.124)	(0.795)	(0.465)	(0.180)	(1.154)
Delta_boardindep	0.242	0.419	0.191	1.719**	0.468
	(0.196)	(0.285)	(0.579)	(0.522)	(0.870)
Delta_boardsize	-0.005	-0.015	-0.075**	-0.037	-0.010
	(0.011)	(0.009)	(0.024)	(0.021)	(0.014)
Delta_oversea	0.067	0.008	0.674***	0.141	-0.794**
	(0.185)	(0.382)	(0.157)	(0.417)	(0.306)
Constant	0.070***	0.022	0.245***	0.058	0.013
	(0.011)	(0.016)	(0.050)	(0.039)	(0.025)
Observations	590	227	40	162	94
Adj. R-squared	-0.151	-0.229	-1.036	-0.167	-0.562
Fixed Effects	Yes	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A3.2: Trends Analysis

This table shows the significance of the effect of belonging to the treatment group before and after gaining a connection when there is no turnover. Year (0) is the year that the connection is gained. Negative years are the years previous to gaining the connections and show that there are no pre-trends. Years (1) to (6) are the years after the connection is gained.

VARIABLES	CEOpay (1)	CEOpay (2)
Treatment	-0.098	-0.086
	(0.229)	(0.212)
Year (-5)*Treatment	-0.160	-0.133
	(0.505)	(0.572)
Year (-4)*Treatment	0.053	0.079
	(0.313)	(0.326)
Year (-3)*Treatment	0.102	0.101
	(0.247)	(0.254)
Year (-2)*Treatment	0.022	0.010
	(0.287)	(0.295)
Year (-1)*Treatment	0.377	0.307
	(0.213)	(0.241)
Year (0)*Treatment	0.630	0.574
	(0.317)	(0.306)
Year (1)*Treatment	0.697**	0.628*
	(0.228)	(0.228)
Year (2)*Treatment	0.899*	0.888*
	(0.344)	(0.343)
Year (3)*Treatment	0.881*	0.855**
	(0.335)	(0.317)
Year (4)*Treatment	0.702**	0.656**
	(0.236)	(0.232)
Year (5)*Treatment	0.322	0.346
	(0.174)	(0.169)
Year (6)*Treatment	0.359	0.414
	(0.317)	(0.278)
Constant	8.327***	8.731***
	(1.797)	(1.704)
Observations	133	133
Adj. R-squared	0.715	0.735
Year FE	No	Yes
Industry FE	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Chapter 4

Elite directors: Political Connections and Pay in China

4.1   Introduction

China is the world's most populated country and the second largest economy. The rapid growth of the Chinese economy and its business skeleton have led to the adoption of Western corporate policies, although the effects of these have been shown to differ because of the country's specific political and business climate (Jiang and Kim, 2020). The manner in which the political framework influences corporate governance of Chinese listed firms remains an unanswered question. In an attempt to understand this dynamic, this paper studies how connections to elite politicians in China shape director compensation in private and state-owned listed firms.

To frame the discussion, I identify a specific group as elite decision makers in China: the 25 members of the Politburo. Then, I have pinpointed a group of company directors connected to the elite group by past educational ties. This measure predates their directorship and offers another perspective on the kinds of personal relationships that might establish the connections I examine in this paper. Unlike the standpoint of previous literature, this measure of connections locates a possible personal relationship between a director and one of the elite politicians beyond current or past membership in the Chinese Communist Party (CCP), as scholars have argued until now (Giannetti et al., 2021; Jia et al., 2019; Wang, 2015). In a sense, the measure used in this paper is similar to Chen and Kung (2019) or Fisman et al. (2020), as they too identify a personal connection to the Chinese political elite -the Politburo- although their approach differs in construction and research purpose.[24]

Political decisions affect firms, especially in developing countries where state civil servants

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[24]Chen and Kung (2019) identify family members as elite connections and look at land price discounts, while Fisman et al. (2020) define connections as shared hometown or college in order to study the promotion of politicians to the Politburo.

enjoy high degrees of freedom, increasing the probability of uncertain outcomes in an unstable political environment. Under the resource dependence theory, political connections become an asset against this source of risk (Pfeffer and Salancik, 1978). The presence of politically connected directors in the boardroom propitiates a flow of favours between business agents and politicians, based on more or less implicit agreements. Politically-connected directors bring resources to firms, in the form of higher subsidies and lower cost of debt (Alonso et al., 2022; Do et al., 2016) or a lower CEO turnover rate despite underperformance (Nguyen, 2012; Faccio, 2010). Though these practices grease the wheels of business, they simultaneously often lead to an entrenched economy controlled by a cronyistic elite (Simón-Yarza, 2022).

However, in a complex political environment like the Chinese, other theories apply, especially when we consider the existence of diverse business' ownership types. State-owned enterprises (SOEs hereafter) are very different from private firms. First, I consider social comparison theory, following Chizema et al. (2015) that argues that politically-connected directors in SOEs shape salaries based on the socialist ideology of the CCP. This leads to recommending lower salaries, similar to those in civil service. In addition to their monitoring and advising role, independent directors in SOEs can also play a political role, particularly in emerging markets such as China, where strong government intervention and weak investor protection are common characteristics for the market players. The CCP places directors in SOEs and cross-appointments between the Party and the board of directors of SOEs is the rule (Lu and Zhu, 2020).[25] Zhang et al. (2017) develop the adaptative power-sharing (APS) hypothesis, arguing that the Party distributes placements of power among the existing elites in order to maintain regime stability and their power status.[26]

I argue that directors in private listed firms in China are compensated according to the resource dependence theory, while those in the boardrooms of SOEs follow political and ideological silent rules that directs their compensation downwards. The results confirm this: connected chairmen in private firms are paid significantly more than their peers, while

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[25]The press has also echoed the controlling role of the CCP in Chinese SOEs: see Kjeld Erik Brødsgaard, Can China Keep Controlling Its SOEs?, The Diplomat (March 05, 2018), https://thediplomat.com/2018/03/can-china-keep-controlling-its-soes/.

[26]Chinese press also underlines these cross-appointments. Read Jiang Chao & Wang Chen, Ex-Executives in SOEs Serve in the State, CAIXIN (Mar. 20, 2013), http://special.caixin.com/2013-03-20/100503822.html.

board members in state firms receive significantly lower salaries than their non-connected counterparts.

This paper makes several contributions to the existing literature. First, it measures the value of the connection for the connected director at an individual level. Few studies have used these individual data (Chen and Keefe, 2018), while others look at the presence of a connection in Chinese boards on aggregate measures of executive compensation (Chizema et al., 2015). Second, the measure of elite connection identifies a narrow conception of personal ties that, though sometimes invisible, remains decisive in China. Third, results show that elite connections in China shape directors' compensation. Finally, the paper proposes an explanation to the ongoing debate in the literature between private firms and SOEs in terms of corporate governance.

4.2 Background: State, Public Firms, and Cronyism in China

There are two stock exchange markets in China: the Shanghai Stock Exchange (SSE) and the Shenzhen Stock Exchange (SZSE). The SSE started trading in 1990. At the beginnings all listed companies were SOEs. These companies are unique in their nature, needs, and objectives and differ vastly from privately owned companies (Wang and Shailer, 2022), above all in their corporate governance practices. The People's Republic of China (PRC) Company Law enables controlling shareholders to manage the appointments of directorships by an ordinary majority. This means that the state effectively elects the directors of SOEs.[27] Until recently, executive and director pay was calculated according to seniority and the civil service formulae that implied equality or near-equality between workers and managers (Firth et al., 2006). Directors and managers in state firms are incentivized by political promotion (Jiang and Kim, 2015). Thus, directors in SOEs control the fulfilment of CCP's objectives: maintaining social stability, generating employment, and pursuing the strategical national agenda.

Conversely, private listed firms follow market incentives. These companies have to

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[27]The press has featured this fact. See Jiang Yunzhang, Ineffective Rules to Cap Executive Pay of Central SOEs, ECON. OBSERVER (July 27, 2013), http://finance.sina.com.cn/china/20130727/002616258459.shtml.

obtain resources, specifically financing and do not enjoy the soft-budget constraint SOEs experience (Gao et al., 2019; Lin and Tan, 1999). To survive in this competitive context, private listed firms need to outperform SOEs, as they continue to do even after the series of reforms undertaken to improve the performance of SOEs (Jiang and Kim, 2020). Maximizing profits and improving performance are common goals of Chinese private listed firms' boards of directors. Here, corporate governance eschews political objectives and directors monitor managers to maximize shareholders' value.

State and private ownership encourage different incentives (Wang and Shailer, 2022). However, there is one element, deeply rooted in Chinese culture, that transcends the ultimate shareholder classification. Guanxi -personal ties that generate an exchange of favours- still directs manners of doing business in China (Chen et al., 2013). Indeed, "promotions, contracts, and land deals [are] frequently explained in terms of relationships and insider access" (Osburg, 2018). There is no conclusive evidence of whether the benefits of political connections outweigh the costs. Connections may ease access to resources (among others, Alonso et al. (2022); Chen and Kung (2019); Goldman et al. (2013)) but may also harm firm value by expropriating funds or discouraging information transparency (Ding et al., 2020; Zhang and Truong, 2019). Aware of this undesirable consequence side, the CCP launched a series of corporate governance and anti-corruption laws. For instance, in October 2013, the Chinese government issued Document 18, which prohibits party officials from sitting as independent directors in the boards of listed firms. Using this event as an exogenous shock to the composition of the board, Zhang and Truong (2019) find that the market reacted positively to the resignation of politically-connected directors. Interestingly, most of the firms in their sample are SOEs. Following another surprise announcement by the Central Commission for Discipline Inspection in May 2013, Ding et al. (2020) also show positive returns around the announcement date. After these efforts, the issue of personal connections still requires examination. This study focuses on this "invisible" way of being connected to the CCP, specifically to the 25 top politicians, identifying elite connections.

4.3   Data

The sample consists of 3,304 A-shares firms listed in the Shanghai and Shenzhen Stock Exchanges between 2007 and 2019. From 2005, the China Securities Regulatory Commission requires firms to report individual directors' compensation information. I exclude from the study financial firms, those undergoing an IPO, and those with abnormal financial conditions. Accounting data, board composition, and director information were obtained from the China Stock Market and Accounting Research (CSMAR) database. The research field thus comprises 14,256 individual directors, 548 of whom have demonstrated an educational connection to a member of the Politburo at some stage.

Table 4.1 provides descriptive statistics for the variables in private (Panel A) and state-owned firms (Panel B).[28] Elite Connection is a dummy variable that acquires value one if a director has attended the same university as a Politburo member, within a four-year window, and studied the same degree type (undergraduate, master, doctorate degree).

The two main dependent variables are director's compensation (lnPay) and probability of not being paid (unpaid). LnPay is the natural logarithm of total director compensation (salary, bonus, and allowance). The aggregate measures of pay in our data do not allow us to separate between fixed and variable compensation. The average compensation for a chair of the board is CNY 664,500. An independent director earns on average CNY 67,400 and a non-independent CNY 397,300. The notable differences between private and state-owned firms are reported in Table 4.1. Unpaid is a dummy variable that equals one if the director is not paid for her services. In the final sample, 24.1% (50.6%) of non-independent directors and 6% (7%) of independent directors in private firms (SOEs) are unpaid. These two variables, *lnPay* and *Unpaid*, have been previously used in the literature (Chen and Keefe, 2018; Chizema et al., 2015; Conyon and He, 2016).

Table 4.1 reports the descriptive statistics for this sample. With regard to board and firms' characteristics, state firms have on average between one or two directors more than private firms and are, generally, larger than private firms taking into account their size of sales. This is validated by the well-known existence of mega-large SOEs companies. State companies are more leveraged than private firms (0.512 versus 0.389) because of

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[28]Table A4.1 in the Appendix defines the variables.

their preferential access to debt, widely documented in the literature. The proportion of chairmen that are also CEOs is higher in private companies: 42.7% as opposed to 10.6% in state companies. However, these numbers might be misleading since chairmen in state-owned companies commonly assume several tasks of the CEO, becoming the de facto manager of the company (Jiang and Kim, 2020). Private firms hire, on average, more female employees than state firms. For instance, 85.1% of non-independent directors in private firms are male while in state firms the proportion is 91.9%. The ratio is less unbalanced when we look at independent directors: 83.3% of in private firms are male and 86.4% in state firms; and the presence of women in chair positions is unusual: 93.6% of the chairs in the boards of private firms are men, while 97.1% in SOEs are men.

Table 4.1: Descriptive Statistics

This table describes the sample of Chinese private listed firm-year observations. Panel A describes the characteristics of private firms. Panel B describes state owned firms. All accounting and board variables are obtained from CSMAR. The LnPay and Size are measured as the natural logarithm of monetary values in Chinese ¥.

	Panel A: Private Firms					Panel B: State Owned Firms				
	N	Mean	Max	Min	SD	N	Mean	Max	Min	SD
Chairmen of the Board Characteristics (person-year)										
Elite Connection	4,533	0.031	1	0	0.173	2,253	0.043	1	0	0.203
Unpaid	4,533	0.095	1	0	0.294	2,253	0.556	1	0	0.497
LnPay	4,533	11.94	17.741	0	3.971	2,253	5.903	16.563	0	6.642
Gender	4,533	0.936	1	0	0.244	2,253	0.971	1	0	0.169
Dual Chair	4,533	0.427	1	0	0.495	2,253	0.106	1	0	0.308
Independent Directors' Characteristics (person-year)										
Elite Connection	22,941	0.047	1	0	0.212	14,641	0.058	1	0	0.235
Unpaid	22,941	0.06	1	0	0.237	2,253	0.07	1	0	0.255
LnPay	22,941	10.306	14.265	0	2.656	14,641	10.284	14.187	0	2.881
Gender	22,941	0.833	1	0	0.373	14,641	0.864	1	0	0.343
Busydir	22,941	1.49	30	0	1.559	14,641	1.045	19.889	0	1.098
Non-Independent Directors' Characteristics (person-year)										
Elite Connection	18,625	0.013	1	0	0.114	9,955	0.035	1	0	0.183
Unpaid	18,625	0.241	1	0	0.428	9,955	0.506	1	0	0.5
LnPay	18,625	9.575	16.804	0	5.501	9,955	6.254	17.311	0	6.412
IsMTMT	18,625	0.464	1	0	0.499	9,955	0.311	1	0	0.463
Gender	18,625	0.851	1	0	0.356	9,955	0.919	1	0	0.273
Busydir	18,625	1.557	30	0	1.693	9,955	1.193	9.667	0	1.157
Firm and Board Characteristics (firm-year)										
Board Size	13,040	9.763	27	5	2.413	8,702	11.026	26	5	2.769
Independent Ratio	13,040	0.389	0.75	0.187	0.075	8,702	0.37	0.8	0.143	0.071
Gender Ratio	13,040	0.844	1	0.167	0.126	8,702	0.896	1	0.375	0.099
Size of Sales	13,040	21.063	26.391	16.251	1.287	8,702	22.073	26.391	16.642	1.528
Leverage	13,040	0.389	0.996	0.019	0.199	8,702	0.512	0.996	0.021	0.195
Return on Assets (ROA)	13,040	0.037	0.283	-0.636	0.080	8,702	0.032	0.283	-0.636	0.054
Return on Sales (ROS)	13,040	0.061	1.455	-3.109	0.267	8,702	0.065	0.615	-3.11	0.165

For non-independent directors, I add the dummy variable *IsMTMT* which takes the value of one if the director is also a member of the management team. Previous literature has shown that the number of directorships held by a director may affect wage allocation in opposite directions. On the one hand, sitting on several boards could reduce the available monitoring time for a director in a given company. This lack of time could negatively affect the salary. On the other, being a busy director may just signal personal ability. Directors that perform best are highly demanded and may be asked to sit on several company boards. In this case, their higher wages would reflect their competence. I control for this by adding the dummy variable *Busydir*, which reflects the number of additional boards where the director serves. There are more busy directors in private firms than in state companies, even though in both cases most directors sit on one to three boards: in Panel A, we see the mean additional number of boards of independent and non-independent directors is around 1.5 for private firms; in panel B, where we show the statistics for SOEs, the mean additional number of boards where independent directors serve is 1.045, while it is 1.193 for non-independent directors.

I also add several control variables at the firm level. Board controls are included as follows: *Boardsize* refers to the number of directors sitting on a board; *Independence Ratio*, is the ratio of independent directors over board size; and *Gender Ratio*, reflects the percentage of male directors in the board. It has been widely shown that tying managerial compensation to firm performance constitutes an incentive to align managers and shareholders goals. Thus, I control for lagged return on assets as an indicator of firm performance. I also control for the lagged size of the company, as I expect larger firms to pay higher salaries due to the higher complexity of their management. Following Conyon and He (2016), size is measured as the natural logarithm of total sales. Finally, I include the lagged leverage ratio of a firm (total liabilities to total assets).

4.4   Methodology

To assess the influence of elite connections on director pay, I use the following model:

$$Outcome_{i,f,s,t} = \gamma_0 + \gamma_1 EliteConnection_{i,f,s,t} + \gamma_2 SizeSales_{f,s,t-1} + \gamma_3 ROA_{f,s,t-1}$$

$$+\gamma_4 Leverage_{f,s,t-1} + \gamma_5 IndependentRatio_{f,s,t} + \gamma_6 BoardSize_{f,s,t} + \gamma_7 Gender_{i,f,s,t}$$

$$+\gamma_8 Busydir_{i,f,s,t} + \gamma_9 DualChair_{i,f,s,t} + \gamma_{10} IsMTMT_{i,f,s,t} + \theta_f + \delta_s + \phi_t + \epsilon_{f,s,t}$$

The *Outcome*, or dependent variables of interest are *LnPay* and *Unpaid*. When analyzing compensation (*LnPay*), I use a linear regression with controls and fixed effects. Instead, I estimate a logit model when analyzing the probability of getting paid (*Unpaid*), also including controls and fixed effects. Standard errors are clustered at the firm, year, and industry level. For the analysis, I split the sample between private and state firms.

Next, I assess whether there are changes in pay for performance conditional on being connected. To this end, I add the interaction term *EliteConn*ROA*. If being connected does not affect pay for performance, then the coefficient γ_2 will not be significant. If connections instead matter, γ_2 will be significant.

$$Outcome_{i,f,s,t} = \gamma_0 + \gamma_1 EliteConnection_{i,f,s,t} + \gamma_4 EliteConn * ROA_{i,f,s,t-1} + \gamma_3 SizeSales_{f,s,t-1}$$

$$+\gamma_4 ROA_{f,s,t-1} + \gamma_5 Leverate_{f,s,t-1} + \gamma_6 IndependentRatio_{f,s,t} + \gamma_7 BoardSize_{f,s,t}$$

$$+\gamma_8 Gender_{i,f,s,t} + \gamma_9 Busydir_{i,f,s,t} + \gamma_{10} DualChair_{i,f,s,t} + \gamma_{11} IsMTMT_{i,f,s,t}$$

$$+\theta_f + \delta_s + \phi_t + \epsilon_{f,s,t}$$

If the sign is the same as that of γ_4 (which is expected to be positive), then connections will magnify the pay for performance scheme. By contrast, if it has opposite sign, then connections will prevent that a director is monitored following a pay for performance scheme. The model is the following:

4.5   Results

Table 4.2 reports the main results of elite connections on compensation in private firms. Firms with higher volume of sales and lower leverage show higher compensation. Consistent

with previous research, salaries increase if the chair of the board is also the CEO (*Dual Chair*) or if the director sits on the management team (*IsMTMT*). The dependent variable in columns (1) to (3) is *LnPay*, and Unpaid in columns (4) to (6). Elite connections significantly increase total compensation of the chair of the board at a 5% level of significance (column (1)) and decrease the probability of being unpaid for chairs of the board (column (4)) although not significantly. This hypothesis is not validated for directors in private firms, as they do not earn significantly higher salaries (columns (2) to (3)) or decrease the probability of being unpaid (columns (5) to (6)). These results confirm that private firms positively value the elite connection of the chair of the board although this tie makes no significant difference for independent and non-independent directors' salaries, or for their chances of being unpaid.

Table 4.2: Connections and Pay in Private Firms

In this table we estimate regressions at the individual director level in private firms. The dependent variables are the *Lnpay* in columns (1) to (3), and *Unpaid* in columns (4) to (6). The independent variable of interest is *EliteConnection*, a binary variable equal to 1 if the CEO is connected to a member of the Politburo, and zero otherwise. All specifications include fixed effects.

VARIABLES	CTB LnPay (1)	Indep. Dirs. LnPay (2)	Non-Indep. Dirs LnPay (3)	CTB Unpaid (4)	Indep. Dirs. Unpaid (5)	Non-Indep. Dirs Unpaid (6)
Elite Connection	1.024**	-0.074	0.421	-1.124	0.167	-0.231
	(0.404)	(0.122)	(0.386)	(0.863)	(0.154)	(0.268)
Size	0.433*	0.111**	0.266***	-0.052	-0.086*	-0.123**
	(0.230)	(0.050)	(0.076)	(0.155)	(0.046)	(0.055)
Leverage	-0.013	-0.056	0.426	1.271	-0.006	-0.239
	(0.545)	(0.227)	(0.317)	(0.903)	(0.286)	(0.316)
ROA	1.696**	0.273	0.193	-5.191***	-0.205	-0.081
	(0.719)	(0.382)	(0.503)	(1.742)	(0.613)	(0.644)
Board Indep. Ratio	1.910***	-6.324***	2.670***	-4.831***	8.251***	-3.008***
	(0.582)	(0.424)	(0.262)	(1.609)	(0.488)	(0.542)
Board Size	-0.113***	-0.275***	-0.163***	0.213***	0.319***	0.162***
	(0.031)	(0.011)	(0.016)	(0.046)	(0.015)	(0.016)
Board Gender	0.857	-0.133**	-0.208*	-0.559	0.152	0.215**
	(0.579)	(0.051)	(0.105)	(0.655)	(0.095)	(0.097)
Busydir	0.080*	-0.004	-0.092**	-0.011	0.016	0.181***
	(0.040)	(0.016)	(0.034)	(0.088)	(0.034)	(0.030)
Dual Chair	1.290***			-4.184***		
	(0.200)			(0.543)		
IsMTMT			5.597***			-5.624***
			(0.110)			(0.138)
Constant	1.717	13.430***	2.217	-1.827	-9.387***	3.795*
	(4.761)	(0.994)	(1.478)	(3.487)	(1.104)	(2.201)
Observations	4,389	22,470	18,189	4,482	22,546	18,344
Adj. R-squared	0.726	0.267	0.607			
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

I next analyse the results in SOEs in Table 4.3. Based on the social comparison theory or the APS theory, I predict a negative relation between *Elite Connection* and *LnPay*,

and a positive one between Elite Connection and Unpaid. This is because connected members to the Politburo might act as flagship of the Communist Party's ideologies. In fact, I find that politically-connected chairs receive significantly lower compensation and experience a higher probability of being unpaid, as observed in columns (1) and (4) respectively. CEOs in state firms are not the primary decision-makers. The government, as the controlling shareholder, delegates this responsibility to the chair, whose main incentive is political (Jiang and Kim, 2020). In a similar way, connected independent directors receive significantly lower pay (column (2)) and are more likely not to be paid for their work (column (5)). I see no effect for non-independent directors. I thus argue that connected directors are placed in SOEs in order to control the interests of the Party as well as to ensure these friends of the elite a privileged position of power. That is, while these results show that they earn significantly lower salaries than their non-connected counterparts, I cannot totally rule out the possibility that they receive other type of privileges or indirect compensation. In fact, several scholars have shown that connected directors often get paid through alternative and less explicit mechanisms. Just as an example, Chen et al. (2018) show that CEOs of SOEs who receive zero pay from the companies for which they work have higher probability of future promotion. Other scholars have also claimed political connections get away with rent-seeking behaviour, adding other sources of personal enrichment to their salaries (Adithipyangkul et al., 2011; Chen and Kung, 2019; Fan et al., 2007; Schoenherr, 2019).

I next consider the interaction between connections and performance. Results for private firms are shown in Table 4.4 and for SOEs in Table 4.5. The measure of performance is return on assets (ROA) in $t-1$. If we look at the relation between performance and compensation the case of private firms (Table 4.4), we observe that performance, measured as ROA affects only chairmen's compensation: higher ROA leads to higher compensation and lower probability of getting unpaid, as shown in columns (1) and (4). When we look at the effect of being connected on such relationship, we can see that the sign changes, suggesting a moderating effect coming from the connection, even though it is not significant. The only case when connections seem to play an effective role in magnifying the pay for performance is for non-independent directors. Turning to the results for SOEs in Table 4.5 we observe that none of the directors see their compensation significantly affected by performance and that belonging to the elite does not make compensation

Table 4.3: Connections and Pay in SOEs

In this table we estimate regressions at the individual director level in state-owned firms. The dependent variables are the *Lnpay* in columns (1) to (3), and *Unpaid* in columns (4) to (6). The independent variable of interest is *EliteConnection*, a binary variable equal to 1 if the CEO is connected to a member of the Politburo, and zero otherwise. All specifications include fixed effects.

VARIABLES	CTB LnPay (1)	Indep. Dirs. LnPay (2)	Non-Indep. Dirs LnPay (3)	CTB Unpaid (4)	Indep. Dirs. Unpaid (5)	Non-Indep. Dirs Unpaid (6)
Elite Connection	-2.058**	-0.332*	0.212	5.197***	0.408***	-0.310
	(0.928)	(0.183)	(0.499)	(1.177)	(0.153)	(0.200)
Size	-0.041	0.191***	0.142	0.111	-0.175***	-0.061
	(0.265)	(0.060)	(0.144)	(0.155)	(0.048)	(0.067)
Leverage	2.326	-0.430	0.680	-1.819*	0.694*	0.008
	(2.180)	(0.475)	(0.397)	(1.036)	(0.357)	(0.419)
ROA	2.788	-0.038	0.896	-0.470	1.370	-0.147
	(4.416)	(0.647)	(1.793)	(2.619)	(1.039)	(1.039)
Board Indep. Ratio	3.676*	-7.025***	0.359	-4.253***	7.232***	-0.146
	(1.746)	(0.463)	(0.830)	(1.497)	(0.588)	(0.669)
Board Size	-0.042	-0.258***	-0.033	0.019	0.232***	0.002
	(0.057)	(0.018)	(0.024)	(0.043)	(0.016)	(0.018)
Board Gender	0.883	-0.005	0.291*	-0.378	0.039	-0.044
	(1.560)	(0.061)	(0.160)	(0.771)	(0.115)	(0.144)
Busydir	0.152	0.023	0.107	-0.067	-0.127**	-0.118**
	(0.204)	(0.026)	(0.077)	(0.124)	(0.057)	(0.054)
Dual Chair	4.333***			-4.640***		
	(1.013)			(0.496)		
IsMTMT			8.754***			-5.624***
			(0.288)			(0.139)
Constant	3.209	11.871***	-0.221	-3.596	-5.452***	1.777***
	(5.896)	(1.498)	(3.422)	(3.725)	(1.132)	(2.424)
Observations	2,126	14,448	9,702	2,199	14,490	9,734
Adj. R-squared	0.728	0.26	0.654			
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

depend on it either.

Table 4.4: Connections and Pay-for-Performance in Private Firms

In this table we estimate regressions at the individual director level in private firms. The dependent variables are the *Lnpay* in columns (1) to (3), and *Unpaid* in columns (4) to (6). The independent variable of interest is *EliteConnxROA*, the interaction between elite connection and performance. All specifications include fixed effects.

VARIABLES	CTB LnPay (1)	Indep. Dirs. LnPay (2)	Non-Indep. Dirs LnPay (3)	CTB Unpaid (4)	Indep. Dirs. Unpaid (5)	Non-Indep. Dirs Unpaid (6)
Elite Connection	1.118**	-0.076	-0.027	-1.518	0.136	0.421
	(0.389)	(0.171)	(0.449)	(1.137)	(0.175)	(0.293)
EliteConnxROA	-2.577	0.043	9.694**	6.242	0.653	-13.453***
	(1.938)	(1.345)	(3.889)	(10.373)	(1.783)	(2.907)
Size	0.434*	0.111**	0.266***	-0.051	-0.086*	-0.123**
	(0.230)	(0.049)	(0.075)	(0.155)	(0.046)	(0.055)
Leverage	-0.017	-0.056	0.418	1.267	-0.005	-0.223
	(0.544)	(0.227)	(0.315)	(0.903)	(0.286)	(0.317)
ROA	1.827**	0.271	-0.063	-5.323***	-0.256	0.128
	(0.734)	(0.403)	(0.528)	(1.766)	(0.627)	(0.648)
Board Indep. Ratio	1.891***	-6.324***	2.704***	-4.765***	8.254***	-3.037***
	(0.590)	(0.438)	(0.288)	(1.613)	(0.488)	(0.543)
Board Size	-0.113***	-0.275***	-0.163***	0.213***	0.319***	0.162***
	(0.031)	(0.012)	(0.017)	(0.046)	(0.015)	(0.016)
Board Gender	0.857	-0.133**	-0.208*	-0.557	0.152	0.216**
	(0.579)	(0.052)	(0.105)	(0.655)	(0.095)	(0.097)
Busydir	0.081*	-0.004	-0.092**	-0.012	0.016	0.181***
	(0.039)	(0.016)	(0.034)	(0.088)	(0.034)	(0.030)
Dual Chair	1.289***			-4.188***		
	(0.200)			(0.543)		
IsMTMT			5.599***			-5.637***
			(0.110)			(0.138)
Constant	1.694	13.431***	2.222	-1.883	0.851***	3.799*
	(4.763)	(0.986)	(1.451)	(3.488)	(1.104)	(2.213)
Observations	4,389	22,470	18,189	4,482	22,546	18,344
Adj. R-squared	0.726	0.267	0.607			
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

In table 4.4, I observe a positive relation between performance (ROA) and compensation in the regressions for the chair of the board (significant in column (1)) and independent directors. The positive effect is eliminated in the case of non-independent directors, as we see in column (3). The interaction between Elite connection and performance (*EliteConnxROA*) is significant in the case of non-independent directors, as we see in column (3). The interaction between elite political connection and performance is not significant for connected chairs of the board or independent directors in private firms. When I turn to table 4.5, the coefficient of the interaction variable is not statistically significant and is positive in the case of connected chairs and independent directors in SOEs. I do not find any moderating or intensifying effect of elite connections through performance. However, I argue that significant results of connections are not driven by

Table 4.5: Connections and Pay-for-Performance in SOEs

In this table we estimate regressions at the individual director level in state-owned enterprises. The dependent variables are the *Lnpay* in columns (1) to (3), and *Unpaid* in columns (4) to (6). The independent variable of interest is *EliteConnxROA*, the interaction between elite connection and performance. All specifications include fixed effects.

VARIABLES	CTB LnPay (1)	Indep. Dirs. LnPay (2)	Non-Indep. Dirs LnPay (3)	CTB Unpaid (4)	Indep. Dirs. Unpaid (5)	Non-Indep. Dirs Unpaid (6)
Elite Connection	-2.939*	-0.489*	0.381	5.626***	0.534***	-0.527**
	(1.462)	(0.257)	(0.430)	(1.339)	(0.180)	(0.257))
EliteConnxROA	22.500	4.008	-4.433	-17.189	-3.351	5.081
	(18.303)	(3.374)	(5.424)	(23.464)	(2.664)	(3.801)
Size	-0.034	0.193***	0.146	0.112	-0.176***	-0.061
	(0.275)	(0.060)	(0.143)	(0.156)	(0.048)	(0.067)
Leverage	2.331	-0.435	0.672	-1.812*	0.698*	0.017
	(2.171)	(0.475)	(0.406)	(1.038)	(0.357)	(0.419)
ROA	2.254	-0.295	1.114	-0.290	1.693	-0.388
	(4.832)	(0.604)	(1.958)	(2.635)	(1.074)	(1.055)
Board Indep. Ratio	3.704*	-7.027***	0.358	-4.298***	7.237***	-0.146
	(1.756)	(0.467)	(0.838)	(1.501)	(0.588)	(0.670)
Board Size	-0.038	-0.258***	-0.033	0.019	0.233***	0.002
	(0.058)	(0.018)	(0.025)	(0.043)	(0.016)	(0.018)
Board Gender	0.880	-0.009	0.291*	-0.379	0.040	-0.045
	(1.565)	(0.063)	(0.161)	(0.772)	(0.116)	(0.144)
Busydir 0.155	0.024	0.108	-0.067	-0.128**	-0.118**	
	(0.205)	(0.026)	(0.078)	(0.124)	(0.057)	(0.054)
Dual Chair	4.336***			-4.652***		
	(1.015)			(0.497)		
IsMTMT			8.755***			-5.630***
			(0.289)			(0.139)
Constant	3.016	11.848***	-0.297	-3.635	0.797***	3.967
	(6.130)	(1.507)	(3.385)	(3.735)	(0.111)	(0.098)
Observations	2,126	14,448	9,702	2,199	14,490	9,734
Adj. R-squared	0.728	0.260	0.654			
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

performance and still persist.

4.5.1   Robustness Tests

Attending the Same Universities

If we assume that the top politicians attended the most prestigious universities, then the measure of Elite Connection could be just capturing high quality education. Results could thus be driven by better knowledge of the directors when running the firm. In order to alleviate possible identification concerns of the elite connections, I run the regressions with a dependent variable named University, a dummy variable that takes value one if the director attended the same university as the Politburo member, but not studying at the same time frame, nor enrolled in the same degree type. In both tables below, 4.6 and 4.7, Panel A presents the regressions for the compensation measures while Panel B includes the results of the pay for performance coefficients. As we observe in Table 4.7, significant effects are lost entirely in the case of SOEs and in the case of chairmen of the board in private firms (table 4.6, Panel A and B, column (1)). This means that our results are not driven by the high quality education of the universities where the top 25 politicians of the country studied.

Intensity of connections

So far, the measure of connections is treated in a dichotomous way. I have identified twenty-three directors connected to two elite politicians, six of whom are connected to three, and one connected to four. I exploit this variation in order to consider an additional measure of connections that regards such intensity differences: the number of connections per director. Table 4.8 shows the results: additional connections to the chairmen of the board increase their salaries in private firms (Panel A) yet decrease them in state owned firms (Panel B). Additional connections also show a higher probability of being unpaid for the chairs of the board of state firms, as observed in column (4) of Panel B. In the case of independent directors, an additional connection does not make any significant difference to the salaries.

Table 4.6: Attending the Same Universities: Private Firms

In this table we estimate regressions at the individual director level for private firms. The dependent variable is the CEO pay in t. The independent variable of interest is *University*. The dependent variables are the *Lnpay* in columns (1) to (3), and *Unpaid* in columns (4) to (6).

Panel A: Pay

VARIABLES	CTB LnPay (1)	Indep. Dirs. LnPay (2)	Non-Indep. Dirs LnPay (3)	CTB Unpaid (4)	Indep. Dirs. Unpaid (5)	Non-Indep. Dirs Unpaid (6)
University	0.082	0.071*	-0.229	-0.186	-0.112	0.367***
	(0.287)	(0.034)	(0.139)	(0.319)	(0.075)	(0.078)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Constant	1.781	13.415***	2.234	-1.505	-9.363***	3.733*
	(4.723)	(0.974)	(1.471)	(3.467)	(1.104)	(2.225)
Observations	4,389	22,470	18,189	4,482	22,546	18,344
Adj. R-squared	0.726	0.267	0.607			
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Panel B: Pay for Performance

VARIABLES	CTB LnPay (1)	Indep. Dirs. LnPay (2)	Non-Indep. Dirs LnPay (3)	CTB Unpaid (4)	Indep. Dirs. Unpaid (5)	Non-Indep. Dirs Unpaid (6)
University	0.030	0.066	-0.328*	-0.069	-0.128	0.431***
	(0.300)	(0.061)	(0.169)	(0.332	(0.089)	(0.093)
University*ROA	1.706	0.113	2.128**	-5.052	0.377	-1.419
	(1.829)	(0.592)	(0.926)	(3.169)	(1.053)	(1.138)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Constant	1.866	13.415***	2.197	-1.764	-9.354***	3.770*
	(4.738)	(0.973)	(1.452)	(3.473)	(1.105)	(2.241)
Observations	4,389	22,470	18,189	4,482	22,546	18,344
Adj. R-squared	0.726	0.267	0.607			
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4.7: Attending the Same Universities: SOEs

In this table we estimate regressions at the individual director level for state-owned enterprises. The dependent variable is the CEO pay in t. The independent variable of interest is *University*. The dependent variables are the *Lnpay* in columns (1) to (3), and *Unpaid* in columns (4) to (6).

Panel A: Pay

VARIABLES	CTB LnPay (1)	Indep. Dirs. LnPay (2)	Non-Indep. Dirs LnPay (3)	CTB Unpaid (4)	Indep. Dirs. Unpaid (5)	Non-Indep. Dirs Unpaid (6)
University	0.136	-0.020	-0.016	0.030	-0.012	0.026
	(0.321)	(0.059)	(0.137)	(0.252)	(0.089)	(0.089)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Constant	3.433	11.926***	-0.188	-4.096	0.793***	1.778***
	(5.788)	(1.512)	(3.413)	(3.619)	(0.111)	(0.098)
Observations	2,126	14,448	9,702	2,199	14,489	9,734
Adj. R-squared	0.726	0.259	0.654			
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Panel B: Pay for Performance

VARIABLES	CTB LnPay (1)	Indep. Dirs. LnPay (2)	Non-Indep. Dirs LnPay (3)	CTB Unpaid (4)	Indep. Dirs. Unpaid (5)	Non-Indep. Dirs Unpaid (6)
University	0.153	-0.067	-0.173	-0.124	0.017	0.096
	(0.467)	(0.062)	(0.114)	(0.296)	(0.105)	(0.110)
University*ROA	-0.492	1.289	4.509	4.953	-0.863	-1.854
	(5.962)	(1.134)	(3.933)	(4.887)	(1.689)	(1.699)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Constant	3.429	11.951***	-0.126	2.956***	0.794***	1.779***
	(5.775)	(1.524)	(3.333)	(3.631)	(0.111)	(0.098)
Observations	2,126	14,448	9,702	2,199	14,489	9,734
Adj. R-squared	0.726	0.260	0.654			
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4.8: Intensity of Connections

In this table we estimate regressions at the individual director level for state-owned enterprises. The dependent variable is the CEO pay in t. The independent variable of interest is $Number of Conns$, which is the number of Politburo members a director is connected to. The dependent variables are the $Lnpay$ in columns (1) to (3), and $Unpaid$ in columns (4) to (6). Panel A presents the results for Private firms, while Panel B shows the results for SOEs.

Panel A: Private firms

VARIABLES	CTB LnPay (1)	Indep. Dirs. LnPay (2)	Non-Indep. Dirs LnPay (3)	CTB Unpaid (4)	Indep. Dirs. Unpaid (5)	Non-Indep. Dirs Unpaid (6)
Number of Conns	0.828**	0.006	0.523	-0.662	0.038	-0.308
	(0.340)	(0.063)	(0.401)	(0.736)	(0.118)	(0.279)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Constant	3.058	13.876**	2.024	-2.668	-9.850***	2.139***
	(3.888)	(1.139)	(2.432)	(4.008)	(0.100)	(0.078)
Observations	3,862	18,494	15,541	3,943	18,617	15,719
Adj. R-squared	0.728	0.282	0.613			
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Panel B: SOEs

VARIABLES	CTB LnPay (1)	Indep. Dirs. LnPay (2)	Non-Indep. Dirs LnPay (3)	CTB Unpaid (4)	Indep. Dirs. Unpaid (5)	Non-Indep. Dirs Unpaid (6)
University	-2.613**	-0.188	-0.145	4.087***	0.228*	-0.113
	(1.123)	(0.118)	(0.383)	(0.984)	(0.117)	(0.175)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Constant	4.044	14.578***	-1.105	-3.428	-5.849***	4.715*
	(4.702)	(2.244)	(2.984)	(3.813)	(1.315)	(0.107)
Observations	1,719	11,074	7,766	1,798	11,115	7,854
Adj. R-squared	0.727	0.287	0.654			
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Clustered robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4.6   Conclusion

This paper examines the effect of elite connections on director pay outcomes. Using a sample of Chinese listed firms and distinguishing between private and state-owned companies from 2007-2019, I identify connections to the elite (the 25 politicians in the CCP Politburo) by past educational networks.

My findings show that chairmen of private listed firms benefit from significantly higher salaries, consistent with the resource dependence theory. However, in line with social comparison theory and APS theory, connections of chairmen and independent directors in SOEs push salaries down. Additionally, the connected directors in SOEs are less likely to be paid.

This paper contributes to the growing literature on corporate governance in China and suggests that political connections to the elite can shape the distribution of resources—primarily compensation—in the Chinese economy. While several scholars have shown the importance of belonging to the Party as a means to obtain resources for firms in China, few research has been conducting analysing the relevance of the elite. This paper contributes to reveal that being friends to the Politburo in China has corporate effects. It also calls for further research to better understand the intricacies of Chinese cronyism. Another contribution of this paper is to shed some more light into the ongoing debate of the difference in corporate governance between private and state-owned listed firms in China.

Last but not least, the fact that connected directors' pay is affected differently depending on the goals of the company (private or state-owned in this study) highlights the importance of taking into account the purpose of the ultimate shareholders of the company when analysing pay decisions. Thus, beyond the interest of corporate governance in China itself, this study provides insights into the understanding of the role of the board, agency conflicts, or corporate governance policies such as compensation practices within the institutional context more generally.

4.7   Appendix: Additional Tables and Empirical Results

Table A4.1: Variable Definitions

Board Gender Ratio	Ratio of male directors to total number of board members.
Board Independence Ratio	Ratio of independent directors (those who are neither executive directors nor have any pecuniary relationship with the corporation) over total number of board members.
Board Size	Total number of board members.
Busydir	Total number of additional boards where a director serves.
Dual Chair	Dummy variable that takes value one if the chairman of the board is also the CEO of the firm.
Elite Connection	Dummy variable equal to one if a firm has at least one board member who attended the same university as a Politburo member, graduated within a four-year window, and studied the same type of degree.
Gender	Dummy variable equal to one if the member of the board is male.
IsMTMT	Dummy variable that takes the value of one if the director is also a member of the management team.
Leverage	Ratio of total liabilities to total assets. Winsorized at the 1% and 99% level.
LnPay	Natural logarithm of total director compensation (salary, bonus, and allowance).
Return on Assets (ROA)	Ratio of net profit to total assets. Winsorized at the 1% and 99% level.
Return on Assets (ROS)	Ratio of net profit to total sales. Winsorized at the 1% and 99% level.
Size of Sales	Natural logarithm of total sales. Winsorized at the 1% and 99% level.
State	Dummy variable that takes a value of one if a firm is state-owned, 0 otherwise.
University	Dummy variable equal to one if at least one board member attended the same university as a Politburo member.
Unpaid	Dummy variable that equals one if the director is not paid for her services.

Chapter 5

Concluding Remarks

In this dissertation, I have only explored three avenues of a much more extensive city, the one of connections to the elite and corporate governance. The more I studied this "reduced group" -the elite- and the more I understood the extent of their power in the economy, the more I was incentivized to enlighten the mechanisms of the connections and the beneficial or harmful effects of their transactions for firms and shareholders. Elite connections can lead to improved access to resources and lower transaction or financing costs, but also to unintended economic consequences such as decreased competition and market concentration in the hands of a few "inner" ones.

Several conclusions can be drawn from this dissertation. China, the most populated country in the world and the second global economy, has converged towards Western corporate governance policies. However, its political and institutional setting makes the country a unique environment where market-based principles and communist rules combine. This creates a tension between the private and state sector that can be exploited in order to understand the role of corporate governance under different regimes.

My main contribution is the finding that the value and role of political connections depends on the purpose of the firm. Private firms follow profit maximization criteria and do not face a soft budget constraint. Therefore, connections are valuable to access key resources such as subsidies. Connected CEOs and chairs of the board receive higher compensation. However, SOEs are political players whose purpose is to maintain social stability, ensure power balances, and fulfil the political agenda. We argue connected CEOs and directors are often placed in these positions to monitor these objectives come to an end. Connected chairmen and independent directors of SOEs are rewarded less than their non-connected peers. Connected CEOs in SOEs are less likely to experience a turnover, and their pay-for-performance link is negative.

These findings are relevant not only to the Chinese economy but to the corporate governance literature as a whole. There are two questions in the corporate governance

literature that are still puzzling: Does it matter who controls a business? and Which characteristics affect the CEO or director's pay? Taken together, these three papers shed light on them.

While far from finished (specially the two last papers need much more polishing), this dissertation shows that connections are valuable as a means to access resources, and as an end to improve compensation (in private firms) or reduce turnover probability (SOEs). Further identifying the channels, a deeper look at performance outcomes, and more clear exogenous shocks or methodologies to prove causality remain unexplored avenues for future research.

References

Adithipyangkul, P., Alon, I., and Zhang, T. (2011). Executive perks: Compensation and corporate performance in China. *Asia Pacific Journal of Management*, 28(2): 401–425.

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

Allen, F., Qian, M., and Qian, J. (2005). Law, finance, and economic growth in China. *Journal of Financial Economics*, 77(1): 57–116.

Alonso, M., Palma, N., and Simon-Yarza, B. (2022). The value of political connections: Evidence from China's anti-corruption campaign. *Journal of Institutional Economics*, 1–21.

Ang, Y. (2020). *China's Gilded Age: The Paradox of Economic Boom and Vast Corruption*. Cambridge University Press., Cambridge.

Bae, K.-H., Gong, Z., and Tong, W. (2021). Restricting CEO Pay Backfires: Evidence from China. ECGI Working Paper 670/2020.

Bebchuk, L. A. and Fried, J. M. (2006). Pay without Performance: Overview of the issues. *Academy of Management Perspectives*, 20(1): 5–24.

Bi, M., Shen, J., and Khan, M. (2018). An Analysis of the Chinese Qian Rule – From the Perspective of Institutional Economics. SSRN Working Paper No. 3165560.

Bian, Y. (2018). The Prevalence and the Increasing Significance of Guanxi. *The China Quarterly*, 235: 597–621.

Bliss, M. A. and Gul, F. A. (2012). Political connection and cost of debt: Some Malaysian evidence. *Journal of Banking & Finance*, 36(5): 1520–1527.

Boubakri, N., Cosset, J. C., and Saffar, W. (2012). The impact of political connections on firms' operating performance and financing decisions. *Journal of Financial Research*, 35(3): 397–423.

Boubakri, N., Mansi, S. A., and Saffar, W. (2013). Political institutions, connectedness, and corporate risk-taking. *Journal of International Business Studies*, 44(4): 290–311.

Bradley, M. and Chen, D. (2015). Does board independence reduce the cost of debt? *Financial Management*, 44(1): 15–47.

Cai, H., Fang, H., and Xu, L. C. (2011). Eat, drink, firms, government: An investigation of corruption from the entertainment and travel costs of chinese firms. *The Journal of Law and Economics*, 54(1): 55–78.

Cao, X., Wang, Y., and Zhou, S. (2018). Anti-corruption campaigns and corporate information release in China. *Journal of Corporate Finance*, 49: 186–203.

Carey, M., Prowse, S., Rea, J., and Udell, G. (1993). The economics of private placements: a new look. *Financial Markets Institutions and Instruments*, 2: 1–66.

Carney, R. W. and Child, T. B. (2013). Changes to the ownership and control of East Asian corporations between 1996 and 2008: The primacy of politics. *Journal of Financial Economics*, 107(2): 494–513.

Chen, C. J., Li, Z., Su, X., and Sun, Z. (2011). Rent-seeking incentives, corporate political connections, and the control structure of private firms: Chinese evidence. *Journal of Corporate Finance*, 17(2): 229–243.

Chen, H., Luo, W., and Soderstrom, N. (2018). Career Concerns and "Unpaid" Executives. AAA 2017 Management Accounting Section (MAS) Meeting, SSRN Working Paper No. 2822979.

Chen, L. (2013). The Changing Nature of China's Higher Education. *Journal of Education and Learning*, 2: 190–200.

Chen, T. and Kung, J. K.-S. (2019). Busting the "princelings": The campaign against corruption in China's primary land market. *The Quarterly Journal of Economics*, 134(1): 185–226.

Chen, Y., Liu, M., and Su, J. (2013). Greasing the wheels of bank lending: Evidence from private firms in China. *Journal of Banking and Finance*, 37(7): 2533–2545.

Chen, Z. and Keefe, M. O. (2018). Board of director compensation in China: To pay or not to pay? How much to pay? *Emerging Markets Review*, 37(C): 66–82.

Chen, Z., Keefe, M. O., and Watts, J. K. (2020). Board of director compensation in China: It pays to be connected. *Pacific Basin Finance Journal*, 63(C): 101394.

Cheng, W. and Wu, Y. (2019). Bank finance for private firms in China: Does political capital still pay off? *The World Economy*, 42: 242–267.

Chizema, A., Liu, X., Lu, J., and Gao, L. (2015). Politically Connected Boards and Top Executive Pay in Chinese Listed Firms. *Strategic Management Journal*, 36: 890–906.

Chu, J., Dechow, P., Hui, K. W., and Wang, A. Y. (2019). Maintaining a Reputation for Consistently Beating Earnings Expectations and the Slippery Slope to Earnings Manipulation. *Contemporary Accounting Research*, 36: 1966–1998.

Cohen, L., Frazzini, A., and Malloy, C. (2008). The Small World of Investing: Board Connections and Mutual Fund Returns. *Journal of Political Economy*, 116(5): 951–979.

Conyon, M. J. and He, L. (2011). Executive compensation and corporate governance in China. *Journal of Corporate Finance*, 17(4): 1158–1175.

Conyon, M. J. and He, L. (2016). Executive Compensation and Corporate Fraud in China. *Journal of Business Ethics*, 134(4): 669–691.

Conyon, M. J., He, L., and Zhou, X. (2015). Star CEOs or Political Connections? Evidence from China's Publicly Traded Firms. *Journal of Business Finance and Accounting*, 42(3-4): 412–443.

Ding, H., Fang, H., Lin, S., and Shi, K. (2020). Equilibrium consequences of corruption on firms: Evidence from China's anti-corruption campaign. NBER Working Paper 26656.

Do, Q.-A., Lee, Y. T., and Nguyen, B. D. (2016). Directors as connectors: The impact of the external networks of directors on firms. LIEPP Working Paper 52, Paris: Laboratory for Interdisciplinary Evaluation of Public Policies.

Edmans, A. (2020). *Grow the Pie: How Great Companies Deliver Both Purpose and Profit*. Cambridge University Press, Cambridge.

Engelberg, J., Gao, P., and Parsons, C. A. (2012). Friends with money. *Journal of Financial Economics*, 103(1): 169–188.

Faccio, M. (2010). Differences between politically connected and nonconnected Firms: A cross-Country analysis. *Financial Management*, 3: 905–927.

Faccio, M., Masulis, R. W., and Connell, J. J. M. C. (2006). Political Connections and Corporate Bailouts. *The Journal of Finance*, LXI(6): 2597–2635.

Faleye, O., Kovacs, T., and Venkateswaran, A. (2014). Do Better-Connected CEOs Innovate More? *Journal of Financial and Quantitative Analysis*, 49(5/6): 1201–1225.

Fan, J. P., Wong, T. J., and Zhang, T. (2007). Politically connected CEOs, corporate governance, and Post-IPO performance of China's newly partially privatized firms. *Journal of Financial Economics*, 84(2): 330–357.

Fang, L., Lerner, J., Wu, C., and Zhang, Q. (2018). Corruption, government subsidies, and innovation: Evidence from China. NBER Working Paper 25098.

Feng, X., Johansson, A., and Zhang, T. (2015). Mixing business with politics: Political participation by entrepreneurs in China. *Journal of Banking & Finance*, 59: 220–335.

Festinger, L. (1954). A Theory of Social Comparison Processes. *Human Relations*, 7(2): 117–140.

Fich, E. M. and Shivdasani, A. (2006). Are busy boards effective monitors? *The Journal of Finance*, 61: 689–724.

Firth, M., Fung, P., and Rui, O. (2006). Corporate Performance and CEO compensation in China. *Journal of Corporate Finance*, 12: 693–714.

Firth, M., Fung, P., and Rui, O. (2007). How ownership and corporate governance influence chief executive pay in China's listed firms. *Journal of Business Research*, 60(7): 776–785.

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

Fisman, R., Shi, J., Wang, Y., and Wu, W. (2020). Social ties and the selection of China's political elite. *American Economic Review*, 110(6): 1752–1781.

Fracassi, C. and Tate, G. (2012). External networking and internal firm governance. *The Journal of Finance*, LXVII(1): 153–194.

Gao, H., Ru, H., Townsend, R., and Yang, X. (2019). Rise of bank competition: Evidence from banking deregulation in China. NBER Working Paper 25795.

Giannetti, M., Liao, G., You, J., and Yu, X. (2021). The externalities of corruption: Evidence from entrepreneurial firms in China. *Review of Finance*, 25(3): 629–667.

Giannetti, M., Liao, G., and Yu, X. (2015). The Brain Gain of Corporate Boards: Evidence from China. *Journal of Finance*, 70(4): 1629–1682.

Goldman, E., Rocholl, J., and So, J. (2013). Politically Connected Boards of Directors and The Allocation of Procurement Contracts. *Review of Finance*, 17: 1617–1648.

Gong, T. and Zhou, N. (2015). Corruption and marketization: Formal and informal rules in Chinese public procurement. *Regulation and Governance*, 9(1): 63–76.

Griffin, J. M., Liu, C., and Shu, T. (2021). Is the Chinese Anti-Corruption Campaign Authentic? Evidence from Corporate Investigations. *Management Science*, (December).

Haggard, S. and Huang, Y. (2008). The Political Economy of Private Sector Development in China. In *China's Great Economic Transformation*, chapter 10, 337–374. Cambridge University Press., Cambridge.

Harrison, A., Meyer, M., Wang, P., Zhao, L., and Zhao, M. (2019). Can a tiger change its stripes? Reform of Chinese state-owned enterprises in the penumbra of the State. NBER Working Paper 25475.

He, L., Wan, H., and Zhou, X. (2014). How are political connections valued in China? Evidence from market reaction to CEO succession. *International Review of Financial Analysis*, 36: 141–152.

Huang, Y. (2015). The truth about chinese orruption. *Diplomat*.

Huang, Y., Pagano, M., and Panizza, U. (2020). Local crowding out in China. *The Journal of Finance*, 75(6): 2855–2898.

Hwang, B. H. and Kim, S. (2009). It pays to have friends. *Journal of Financial Economics*, 93(1): 138–158.

Jia, N., Mao, X., and Yuan, R. (2019). Political connections and directors' and officers' liability insurance – Evidence from China. *Journal of Corporate Finance*, 58: 353–372.

Jia, R., Kudamatsu, M., and Seim, D. (2015). Political selection in China: The complementary roles of connections and performance. *Journal of the European Economic Association*, 13(4): 631–668.

Jiang, F. and Kim, K. A. (2015). Corporate governance in China: A modern perspective. *Journal of Corporate Finance*, 32: 190–216.

Jiang, F. and Kim, K. A. (2020). Corporate governance in China: A survey. *Review of Finance*, 24(4): 733–772.

Khaw, K. L. H., Rashid, R. M., and Zainudin, R. (2019). Cost of debt financing: Does political connection matter? *Emerging Markets Review*, 41(C).

Lardy, N. R. (2019). *The State strikes back: The end of economic reform in China?* Number 7373 in Peterson Institute Press: All Books. Peterson Institute for International Economics.

Li, B., Megginson, W. L., Shen, Z., and Sun, Q. (2019). Privatization effect versus listing effect: Evidence from China. *Pacific Basin Finance Journal*, 56(C): 369–394.

Li, H., Meng, L., Wang, Q., and Zhou, L.-A. (2008). Political connections, financing and firm performance: Evidence from Chinese private firms. *Journal of Development Economics*, 87: 283–299.

Liang, H., Renneboog, L., and Sun, S. L. (2015). The political determinants of executive compensation: Evidence from an emerging economy. *Emerging Markets Review*, 25: 69–91.

Lim, C. Y., Wang, J., and Zeng, C. C. (2018). China's "Mercantilist" Government Subsidies, the Cost of Debt and Firm Performance. *Journal of Banking & Finance*, 86: 37–52.

Lin, C., Morck, R., Yeung, B., and Zhao, X. (2018). Anti-Corruption reforms and shareholder valuations: Event study evidence from China. NBER Working Paper 22001.

Lin, J. Y. and Tan, G. (1999). Policy Burdens, Accountability, and the Soft Budget Constraint. *American Economic Review*, 89(2): 426–431.

Lin, L. (2014). Regulating Executive Compensation in China: Problems and Solutions. *Journal of Law and Commerce*, 32(2): 207–254.

Liu, A. P. L. (1983). The Politics of Corruption in the People ' s Republic of China. *American Political Science Review*, 77(3): 602–623.

Liu, L. X., Shu, H., and Wei, K. J. (2017). The impacts of political uncertainty on asset prices: Evidence from the Bo scandal in China. *Journal of Financial Economics*, 125(2): 286–310.

Liu, Y. (2014). Outside options and CEO turnover: The network effect. *Journal of Corporate Finance*, 28: 201–217.

Liu, Y.-l. (1992). Reform from Below : The Private Economy and Local Politics in the Rural Industrialization of Wenzhou. *The China Quarterly*, 130: 293–316.

Liu, Y.-l. (2018). Reform from below: The private economy and local politics in the rural industrialization of Wenzhou. *The China Quarterly*, 130: 293–316.

Lorentzen, P. and Lu, X. (2018). Personal ties, meritocracy, and China's Anti-Corruption Campaign. SSRN Working Paper 2835841.

Lu, X. (2017). Essays in China's Anti-corruption Campaign. *UC Berkeley PhD dissertation*.

Lu, Z. and Zhu, J. (2020). Tracing back to the source: Understanding the corporate governance of boards of directors in Chinese SOEs. *China Journal of Accounting Research*, 13(2): 129–145.

Manion, M. (1998). Corruption by design: Bribery in Chinese enterprise licensing (vol 12, pg 167, 1996). *Journal of Law Economics & Organization*, 12(1): 180–182.

Mattingly, D. C. (2016). Elite capture: How decentralization and informal institutions weaken property rights in China. *World Politics*, 68(3): 383–412.

MSCI (2017). Corporate Governance in China. Technical Report September.

Myers, J. T. (1989). China : Modernization and " Unhealthy Tendencies ". *Comparative Politics*, 21(2): 193–213.

Nee, V. (1992). Organizational dynamics of market transition: hybrid forms, property rights, and mixed economy in China. *Administrative science quarterly*, 37(1).

Nguyen, B. D. (2012). Does the Rolodex Matter? Corporate Elite's Small World and the Effectiveness of Boards of Directors. *Management Science*, 58(2): 236–252.

Oi, J. (1989). Market reforms and corruption in rural China. *Studies in Comparative Communism*.

Osburg, J. (2018). Making Business Personal: Corruption, Anti-corruption, and Elite Networks in Post-Mao China. *Current Anthropology*, 59(S18): S149–S159.

Pan, X. and Gang, G. (2017). Political connections and corporate investments: Evidence from the recent anti-corruption campaign in China. *Journal of Banking and Finance*, 119: 1–15.

Pei, M. (2016). *China's crony capitalism : the dynamics of regime decay*. Harvard University Press.

Pfeffer, J. and Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective*. Harper Row, New York.

Pittman, J. A. and Fortin, S. (2004). Auditor choice and the cost of debt capital for newly public firms. *Journal of Accounting and Economics*, 37(1): 113–136.

Rajan, R. G. and Petersen, M. A. (1994). The benefits of lending relationships: Evidence from small business. *The Journal of Finance*, 49(1): 3–37.

Renneboog, L. and Zhao, Y. (2020). Director networks, turnover, and appointments. *European Financial Management*, 26(1): 44–76.

Schoenherr, D. (2019). Political connections and allocative distortions. *The Journal of Finance*, 74(2): 543–586.

Shapiro, C. and Varian, H. R. (1999). *Information Rules: A Strategic Guide to the Network Economy*. Harvard Business School Press.

Shih, V., Adolph, C., and Liu, M. (2012). Getting ahead in the Communist Party: Explaining the advancement of Central Committee members in China. *American Political Science Review*, 106(1): 166–187.

Simón-Yarza, B. (2022). The Changing Wheels Hypothesis. Corruption and Development: Evidence from China. Working paper.

Sun, Y. (2004). *Corruption and market in contemporary China*. Cornell University Press.

Tang., N., Ding, Z., and Xu, Y. (2018). Corruption and anti-corruption research in China: A critical review of Chinese top journal publications (1989–2017). *Chinese Public Administration Review*, 9(2): 79–98.

Wang, K. T. and Shailer, G. (2022). Multiple performance criteria for government-controlled firms. *International Review of Economics and Finance*, 79: 75–96.

Wang, L. (2015). Protection or expropriation: Politically connected independent directors in China. *Journal of Banking & Finance*, 55: 92–106.

Wedeman, A. (2004). The intensification of corruption in China. *The China Quarterly*, 180: 895–921.

Wedeman, A. (2012). *Double paradox: Rapid growth and rising corruption in China*. Cornell University Press.

Wedeman, A. (2017). Bribery with Chinese Characteristics? Corruption, Fuzzy Property Rights, and Rapid Growth. *East Asia*, 34(2): 87–111.

Wu, H., Li, S., Ying, S. X., and Chen, X. (2018). Politically connected CEOs, firm performance, and CEO pay. *Journal of Business Research*, 91: 169–180.

Yao, Z., Gu, D., and Cao, W. (2019). SOEs as intermediation: Leakage effect under financial repression. *Pacific-Basin Finance Journal*, 53: 349–361.

Zhang, J., Zhang, Q., and Liu, Z. (2017). The political logic of partial reform of China's state-owned enterprises. *Asian Survey*, 57(3): 395–415.

Zhang, K. and Truong, C. (2019). What's the value of politically connected directors? *Journal of Contemporary Accounting and Economics*, 15(3).

Zhang, Z. and Jin, S. (2017). Political connections, government subsidies, and capital misallocation: Evidence from China. SSRN Working Paper 9048107.

Zhou, K. X. (1996). *How the farmers changed China: power of the people.* Westview Press, Inc..