

Betting on a Princeling

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Abstract While previous studies on political connections have empirically estimated the effects of connections on firm value, we still know relatively little about how political connections are formed, or about how the formation of political connections affects the way politicians influence firms. I address these two questions by examining recent cases in China in which two powerful politicians—Bo Xilai and Chen Liangyu—were removed from office. I show that Bo’s removal only affected nationally connected firms, while Chen’s fall only affected locally connected firms. I argue that this difference should be explained by their different career paths: Bo was a national politician, whereas Chen spent his whole career in local government. There is strong evidence that firms were betting on Bo and hence lost market value after his fall. These findings have important implications for our understanding of state-business relations in developing countries.

Keywords Political connection · State-business relations · Capture · China

Introduction

Recent studies on political connections have shown that relationships with powerful politicians indeed determine firm value. Politically connected firms often experience

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fluctuating returns around critical points in politicians' careers and lives. In a seminal study, Fisman (2001) reveals that Indonesian firms that were connected to Suharto experienced significantly negative returns when his health deteriorated. Eggers and Hainmueller (2009) compare the wealth of British Members of Parliament (MPs) with that of parliamentary candidates who narrowly lost, and show that MPs profited from office largely through lucrative outside employment they acquired as a result of their political positions. Similarly, Truex's (2014) study shows that being elected to China's National People's Congress greatly increased CEO deputies' firm values.

While these studies have empirically estimated the *effects* of political connections, we still know relatively little about how such connections are formed, or about how their formation affects the ways in which politicians influence firms. Understanding the formation of political connections is important because firms usually make strategic decisions regarding with whom they want to connect, and then benefit (or suffer) from these decisions.

I address these two questions by examining two recent cases in China in which powerful politicians were removed from office and firms in their jurisdictions experienced significantly negative returns. However, firms with different types of connections were affected differently. On March 15, 2012, the Chinese official media announced the removal of Bo Xilai—the son of a revolutionary veteran, a “princeling”—from his post as Chinese Communist Party (CCP) chief in Chongqing. During the 5 days around the event (from 2 days before to 2 days after), Chongqing-based firms that were connected to the *national* government had a significant cumulative abnormal return of -2.91% , which created a \$311 million financial market shock (0.17 % of Chongqing's 2012 gross domestic product, GDP). However, Bo's fall barely affected Chongqing firms that were connected to the *local* government. The 5-day cumulative abnormal return for locally connected firms was -1.66% and statistically insignificant. In another case, when Shanghai's party boss Chen Liangyu fell from grace in 2006, firms that were connected to the Shanghai *local* government experienced a significant 5-day cumulative abnormal return of -2.29% . Interestingly, this time, Shanghai firms that were connected to the *national* government were not negatively affected. How should these results be explained?

I argue that a politician's career path to a large extent shapes the types of connections firms build, and that the formation of these connections will affect the firms' value when the politician falls. I theorize that there are two mechanisms through which politicians shape the connections between firms and the state. The first is a *betting* mechanism: firms strategically hire people in the politician's extended circles to strengthen their ties with the politician, or to simply signal their goodwill to him or her. In this scenario, the politician does not need to pull strings directly or even be aware of the connections. The second is a *brokering* mechanism: the politician plays an active role in bringing connections to firms. Because many of the deals are made under the table, I cannot quantitatively test these two mechanisms separately. However, I will provide both quantitative and qualitative evidence that both mechanisms are at work, and I can estimate the effect of losing both mechanisms on firms' values, which is the weighted average of both mechanisms.

While Chen Liangyu spent his whole career in Shanghai as a local official, Bo Xilai was a central minister before becoming Chongqing's party chief. By collecting

fine-grained panel data on firms' board composition, I report evidence that most firms that were affected by Bo's removal built their connections to the national government after he was appointed Chongqing's party chief, and that it is no coincidence that Bo, before arriving in Chongqing, worked in the national government as Minister of Commerce. I also find evidence from recently revealed corruption scandals that Bo was actively bringing lucrative connections, such as those with central government organizations and PetroChina (a state-owned oil company), to Chongqing firms. The quantitative and qualitative evidence suggests that Bo served as a bridge between Chongqing firms and the national government, and that companies were hoping that Bo—a political rising star—would become a top leader in the CCP's 18th Congress. Unfortunately, Bo was purged right before this Party Congress due to a murder scandal, and the firms that betted on him lost the most in market value.

Using this fine-grained data, I am also able to identify a “revolving door” phenomenon—a former regulator taking a position in a regulated firm—the most common channel through which connections help (or hurt) businesses. Other channels include “umbrella” protection offered by a generalist, tax collection, law enforcement, and bank loans. The evidence reveals “capture” in an authoritarian state (Stigler 1971).

I measure political connections by investigating the resumes of publicly traded firms' board members. The board of directors, as “the common apex of the decision control systems” of a firm (Fama and Jensen 1983, 311), performs important duties, including selecting the chief executive, ensuring the availability of adequate financial resources, accounting to the stakeholders for the organization's performance, and setting the salaries and compensation of company management. Scholars have advocated smaller boards dominated by directors with professional qualifications for better corporate governance (Hermalin and Weisbach 1988). However, firms have routinely staffed their boards with former politicians or bureaucrats in the USA (Vidal et al. 2012), Great Britain (Eggers and Hainmueller 2009), Pakistan (Khwaja and Mian 2008), and China (Fan et al. 2007). This seemingly inefficient board composition implies there are *political* considerations in choosing board members. I define a firm as politically connected if at least one of its board members was formerly (or is currently) an employee or member of one of the following organizations: the national government, local government, the national parliament, local parliament, the National CCP Congress, local CCP Congress, or the People's Liberation Army (PLA).

This study goes beyond the previous literature in three significant ways. First, I extend the time frame of most existing studies, which only examine the period of the exogenous shock, to investigate the political economy in each city prior to the shock. I provide evidence that in Chongqing, in particular, firms responded to the arrival of the centrally connected “princeling” Bo Xilai as party boss by rapidly adding central-government-linked members to their boards. Politicians' role as brokers adds a new dimension to the clientelism literature, which often treats politicians as one end of clientelist ties rather than a link between two ends (Stokes 2005; Hicken 2011).

Second, I analyze and compare a wider set of possible connections. Rather than asking whether a specific connection or kind of connection matters, I investigate different *types* of connections. In addition, while most prior studies have focused on

connections at the national level, I examine the hierarchy of connections at both the national and local levels.

Third, I utilize the richness of the board composition data to explore what kinds of state-linked board members they had, and identify the causal channels through which connections affect business.

The rest of the article is structured as follows: the next section will review the existing literature and identify several gaps, the third section will then present the main empirical findings and conduct robustness checks, and the final section will conclude with a summary of findings and broader implications.

Prior Studies on Political Connections

It is beyond doubt that political connections are important for firms: after their political patrons lose power through death or a purge, connected firms often experience drops in market value (Fisman 2001; Johnson and Mitton 2003); conversely, when their patrons rise in power, connected firms reap the benefits (Truex 2014). Political connection is usually viewed as an inevitable precondition or consequence of corruption. As Faccio (2006) shows, such connections are particularly common in countries that are perceived as highly corrupt. She suggests that corruption and connection are complements: when corruption is insufficient to obtain significant benefits, firms need to become personally involved in politics to “squeeze the state” (Faccio 2006, 380). However, corruption is conceptually different from connection. Corruption is defined as the abuse of public office for private gain (Bardhan 1997), which is illicit in most countries, while connections, such as hiring retired politicians or making campaign donations, are usually legitimate.¹

A typical research design for the study of political connections often follows three steps: (1) construct a measure of the political connectedness of listed firms (X), (2) identify some surprising events that could influence connected firms (such as a leader’s death or exit), and estimate their cumulative abnormal returns within a certain number of days before and after the event date (Y), and (3) regress Y on X .²

This routine methodology has generated three characteristics in the political connection literature. First, few studies have asked where political connections come from. In a path-breaking analysis, Fisman (2001) uses a Suharto Dependency Index developed by a consulting firm to measure firms’ connections to Suharto, but he did not explore how these connections were formed in the first place. Second, most studies have only examined one level or one type of connection. Nearly all cross-national research only collected data on connections with national leaders or organizations. In the most systematic study of political connections to date, Faccio (2006) analyzes

¹The extent to which this practice is legitimate varies across countries. For an analysis, please see Faccio (2006).

²Some other studies use more sophisticated methods, such as matching or regression discontinuity design, to estimate the value of connections. Please see Eggers and Hainmueller (2009) and Truex (2014).

connections with ministers and the national parliament, and she admits, “connections with local officials may be more important than connections with central government office-holders.” In addition, nearly all studies have merely examined one type of connection, for example with MPs (Jayachandran 2006) or government bureaucrats (Acemoglu et al. 2016). Third, most analyses stop after estimating the marginal effect of connections on firm value, and do not examine the causal channels. We are therefore left wondering whether connections help businesses via regulatory favors, tax benefits, bank loans, or lax law enforcement.

Uncovering Connections Through an Event Study in China

I move the literature forward by studying political connections in China, the country with probably the most prevalent connections between politicians and corporations in the world (Wang 2016). I will first estimate the rate of return by conducting an event study of the removals of Chen Liangyu and Bo Xilai, and then show that the career of a politician connected to a particular firm has a noticeable impact on that firm’s political connections.

Firms are expected to lose their market value once there is a political change. Their market values drop after a leadership change for various reasons other than political connections. For example, it might be the case that a good leader is being replaced by a bad leader, which depresses investors’ confidence in the economy. Or a sudden leadership change might reveal the system’s political uncertainties or volatilities, leading investors to update their prior beliefs about politics with this new information. A promising empirical strategy should be able to tune out these “noises” and isolate the effect of political connections. As Khwaja and Mian (2011) suggest, we need to move away from simple “single differences” to more elaborate comparisons that involve “double differences.”

Imagine that a leader’s removal leads to a domino effect of political reshuffling in countries with prevalent factionalism (Shih et al. 2012), and that firms located in the leader’s jurisdiction experience negative returns for various reasons discussed above (first difference). However, if politically connected firms lose more market value than unconnected firms, the “additional difference” is more likely to be created by connections between firms and the regime. This strategy’s strength involves arguing (1) that I have indeed correctly identified situations in which political connections create an additional difference and (2) that these situations arise from factors that are exogenous to political connections.³

The fall of both Chen Liangyu and Bo Xilai involved decisions made by people at the very top. The available evidence shows that Chen Liangyu misallocated social security funds, and that Bo Xilai was involved in a murder case, neither of which was related to firms hiring former politicians.

³For a more detailed discussion of this strategy, please see Khwaja and Mian (2011), and for an application of such a strategy, please see Fisman (2001).

Data

A total of 133 companies registered in Shanghai and 35 companies registered in Chongqing were listed on the Shanghai Stock Exchange or the Shenzhen Stock Exchange in 2006 and 2012 (the years of the two events), respectively. I obtained the biographical information of all 3,029 board members of these companies (chairperson, president, vice-president, CEO, executive director, non-executive director, or secretary) from Wind Info, a leading integrated service provider of financial data based in Shanghai.⁴ I then checked the reliability and consistency of the Wind data using public information found in a random sample of companies' annual reports to verify its accuracy.⁵ I then manually coded the career information of each board member in each firm to determine whether a member was politically connected.⁶ This "board" approach is consistent with the identification of political connections in the literature (Agrawal and Knoeber 2001; Boubakri et al. 2008).

Unlike prior studies that only examine one level or one type of connection, I distinguish between seven types of connections. I first differentiate connections with national institutions from those with local institutions. Studies have shown that politicians in decentralized and centralized systems have different incentive structures (Treisman 2007), and as Shleifer and Vishny (1993) show, "decentralized corruption" is more costly for society than "centralized corruption." The Chinese reforms have transitioned from "decentralization" (Shirk 1993; Naughton 2007) to "recentralization" (Naughton 2007, 101), and many mark the 1994 fiscal reform⁷ as a turning point (Wong 2000). In addition, the Chinese bureaucracy is fragmented by conflicting goals and functions between departments, interlocking directorates, and complex vertical versus horizontal responsibilities (Lieberthal 1992; Mertha 2009). These institutional characteristics incentivize firms to build broad coalitions. It is, therefore, unwise to assume that China has a *de facto* federalist system (Montinola et al. 1995) and that firms only build connections with local governments. As Yang (2006, 143) points out, the recent focus on decentralization has "gone too far." We expect firms to build broader coalitions with both the national and local governments. In other words, it is not enough for firms to connect with only one level or segment of the government. To make sure that their business activities will go smoothly and that they have sufficient protection, firms need to buy so-called supermajorities: coalitions that span a wide range of organizations and government levels.

I also distinguish connections with the government from those with the legislature, which most existing studies have conflated (Faccio 2006). The logics are different. Political connections with the government can be supplied by politicians who "descend from heaven" through retirement. For example, Deng Xiaoping carefully and gradually enforced policies and norms of cadre retirement in the late 1970s

⁴<http://www.wind.com.cn/En/> (Accessed August 2, 2013).

⁵It is important to note that this information is publicly available on the Internet as well, so stock market investors have the same information.

⁶Every board member was double coded by a group of research assistants and me. Section 1.1 in the [web appendix](#) shows examples of board members' biographies.

⁷In 1994, the Chinese government centralized the tax-collecting power from the provinces to the center.

(Manion 1993). Many officials also resign from public office to take a corporate job for two reasons.⁸ One is simply that not everyone gets promoted to the top in the bureaucracy (Landry 2008; Shih et al. 2012).⁹ The second is that private sector jobs pay more.¹⁰

Another way to establish political connections is for business people to enter politics (“wealth into power”) (Dickson 2003; Truex 2014). Legislatures in autocracies tend to incorporate opposition forces—including the business class—into politics in order to co-opt potential threats to the regime (Gandhi and Przeworski 2007). In China, the CCP has aggressively involved private entrepreneurs in politics by making them party members or People’s Congress representatives. These “red capitalists” are shown to be more sympathetic than non-party members to the authoritarian regime (Dickson 2003; Tsai 2006).

A board member could be connected to one of the following organizations: the national government, a local government (from province to township), the national parliament (including the National People’s Congress (NPC) and the Chinese People’s Political Consultative Conference), a local parliament (including local People’s Congress and local People’s Political Consultative Conference), the national CCP Congress, a local CCP Congress, or the PLA. For local connections, I also determine whether the connection was in the province in which the company was registered.

A board member is considered to be connected to one of these organizations if she was previously (or is currently) an employee or member. I define government connections very strictly, excluding any semi-governmental organizations such as research institutes affiliated with a government organization.¹¹ A company is connected if one of its board members is connected.¹²

Following this procedure, I find that firms in Shanghai and Chongqing had a wide range of connections that showed signs of “supermajorities” rather than “minimal-winning coalitions” (Groseclose and Snyder 1996).¹³ And firms were more

⁸The Civil Servant Law of China stipulates, “Where a civil servant resigns his post or retires, he shall not take any post in an enterprise or any other profit-making organization, which is directly related to his original post, or shall not engage in any profit-making activity directly related to his original work within three years after he leaves his post, if he is a leader before resignation. For any other civil servant, the time limit is two years.” However, this law is rarely enforced. For the law, please see <http://alturl.com/swa2e> (Accessed September 17, 2013). And for a discussion of its enforcement, please see <http://alturl.com/th8qv> (Accessed September 17, 2013).

⁹The probability that a civil servant in China will reach the ministerial level is estimated to be 0.04 %. Please see <http://alturl.com/cwnhs> (Accessed August 1, 2013).

¹⁰According to official reports, the yearly salary of Yu Zhengsheng—then the party secretary of Shanghai and a Politburo member—was 132,000 *yuan* (\$20,000), compared to Wang Shi’s—Chairman of China Vanke, a real estate company—which was 15.6 million *yuan* (\$2.5 million). For Yu’s salary, please see <http://alturl.com/wwu68> (Accessed August 1, 2013). For Wang’s salary, please see <http://alturl.com/tgw2q> (Accessed August 1, 2013). Certainly, these comparisons should be taken with a grain of salt due to the other sources of income for government employees such as graft, health care, pension, housing, and other government-subsidized services.

¹¹For my code book, please see Section 1.2 in the [web appendix](#).

¹²For lists of firms and their connectedness, please see Tables 1 and 2 in the [web appendix](#).

¹³The difference is similar to how Shleifer and Vishny (1993, 604–611) distinguished between a “centralized monopolist” and “independent monopolists.”

Table 1 Politically connected firms in Shanghai (2006) and Chongqing (2012)

Type	Shanghai Frequency	2006 %	Chongqing Frequency	2012 %
Connected to the national government	22	16.54	7	20.00
Connected to local governments	55	41.35	25	71.43
Connected to the national parliament	6	4.51	10	28.57
Connected to local parliaments	21	15.79	21	60.00
Connected to the national party congress	0	0.00	0	0.00
Connected to local party congresses	0	0.00	1	2.86
Connected to the People's Liberation Army	7	5.26	6	17.14
Total	133	100.00	35	100.00

These categories are not mutually exclusive. A firm can have connections, for example, with both the national government and the national parliament

connected to the government than to parliament; the latter is more common in democracies (Faccio 2006). Table 1 summarizes the data.

Two caveats are in order, as my measure of connections is far from comprehensive. First, in some instances, politicians' families may control firms through shareholding, nominee accounts, or shell entities. As a *New York Times* article shows, China's former Premier Wen Jiabao's mother was a large shareholder of Ping An Insurance.¹⁴ However, there is no comprehensive and accurate disclosed financial information about Chinese politicians. Nonetheless, my "board" approach can produce results that resonate well with unobserved connections. For example, using this procedure, Ping An Insurance is coded as a highly connected firm: two board members are connected to the national government, five with local governments, and one with the national parliament. Second, there are many other ways to build a connection, such as friendship, marriage, and bribery. I only focus on a direct measure that is observable for all firms.

Event Study

I conduct an event study to estimate the rate of return on political connections to Chinese firms. Event studies use financial market data to measure the impact of a specific event on the value of a firm. The rationale of such a study is based on the "efficient market" assumption that, "given rationality in the marketplace, the effects of an event will be reflected immediately in security prices" (MacKinlay 1997). Event studies have been widely applied to a variety of economic events, and have recently gained popularity in the study of political events (Roberts 1990; Fisman 2001; Bernhard and Leblang 2006; Acemoglu et al. 2016).

¹⁴Please see <http://alturl.com/wusdk> (Accessed August 6, 2013).

The Events

I study two significant political events in China: the removal of two Politburo members (Shanghai Party Secretary Chen Liangyu in September 2006 and Chongqing Party Secretary Bo Xilai in March 2012).¹⁵

Chen Liangyu worked in Shanghai for his entire public life. He served as mayor from 2001 to 2003 and was elected to the Politburo in November 2002. From February 2003 to September 2006, he was the party chief of Shanghai. In contrast, Bo Xilai came to prominence through his tenures as the mayor of Dalian and then the governor of Liaoning Province. From 2004 to November 2007, he served in the central government as Minister of Commerce. Between 2007 and 2012, he served as a member of the Politburo and as the party chief of Chongqing. The son of Bo Yibo, one of the “Eight Elders” of the Communist Party, Bo Xilai is one of the “princelings” of Chinese politics.¹⁶

On September 25, 2006, the Chinese official media announced the dismissal and detention of Chen Liangyu because of his involvement in the Shanghai social security fund scandal.¹⁷ Chen made his last public appearance as the Shanghai party boss on the evening of September 23, and the purge was kept strictly confidential until September 25 (Sun et al. 2011, 190).

On February 9, 2012, the Chinese media reported that Chongqing’s police chief Wang Lijun traveled to the US consulate in the nearby city of Chengdu. As was later revealed, Wang brought evidence implicating Bo Xilai and his wife in the murder of a British businessman. Bo’s political career was largely unaffected until mid-March, and many observers believed that he would have a soft landing because of his prominent princeling status and broad support among Chinese leftists.¹⁸ Bo later appeared in NPC meetings from March 5 to 14 and held a high-profile press conference on March 9. He made his last public appearance as the Chongqing party boss in the closing ceremony of the NPC on the morning of March 14. However, later that day, Bo was reprimanded during then-Premier Wen Jiabao’s press conference: Wen urged the Chongqing leadership to “engage in diligent reflection and draw lessons from the [Wang Lijun] incident.”¹⁹ On March 15, 2012, the Chinese official media announced that Bo Xilai had been removed from his post as party chief in Chongqing.²⁰

Please note that my measures of connections do not indicate firms’ *personal* connections with Chen Liangyu or Bo Xilai, but rather connections with the “regimes” under Chen and Bo. As mentioned before, there are two reasons why a politician’s fall might affect these regime ties. One is that firms strategically build connections by hiring people who are close to the politician. These people may or may not be in the politician’s direct circle, but they are in the same extended network with the

¹⁵<http://alturl.com/o25sr> (Accessed August 8, 2013).

¹⁶The word “princeling” refers to the descendants of prominent and influential senior communist officials in the People’s Republic of China.

¹⁷Please see <http://alturl.com/w7h8u> (Accessed August 7, 2013) for more information about the scandal.

¹⁸<http://alturl.com/nrz3w> (Accessed August 7, 2013).

¹⁹<http://alturl.com/codwe> (Accessed August 8, 2013).

²⁰For the whole timeline, please see <http://alturl.com/p3g48> (Accessed August 8, 2013).

politician. The politician's fall is expected to affect these ties because of the clientelistic nature of the political system. As Ang (2016) argues, public employment in China is highly dependent on personal clientelism; she estimates that a leadership change at the provincial level will lead to 18,948 personnel changes. Applying this logic, the fall of Chen and Bo should have brought massive personnel changes in the local and national governments, which directly or indirectly affected the ties between firms and the state. The other reason why a politician's fall might affect ties between a firm and the regime is that many such ties were built directly by the politician. Below, I show qualitative evidence that Bo actively helped Chongqing firms connect with central government organizations and companies after he was appointed Chongqing's party boss. These ties were abruptly broken after Bo's fall.

The focus on ties with a regime distinguishes this study from some earlier studies that examine ties with individual politicians (Fisman 2001; Fan et al. 2008). If the results are significant using regime ties, then the implications of this study are more profound because they imply that political connections have not only captured individual politicians but have also penetrated the whole political system, and that businesses have indeed "squeezed the state."

Procedure

I follow the standard event study procedure to estimate the market-adjusted cumulative abnormal return for the 5-day period (event window) around the event dates (days -2 to $+2$)²¹ (MacKinlay 1997). The event date for Chen's removal is straightforward: September 25, 2006, the day of the announcement and the first trading day after his last public appearance. Defining the event date for Bo's removal is harder, because there were many confounding events. I use March 14, 2012 as the event date because Wen Jiabao's remarks on that date signaled the collective decision of the Chinese leadership that Bo should be held responsible for the Wang Lijun incident, and Bo still appeared in public right before the press conference. To stock market investors, Wen's rebuke was more of a surprise, and by the time of the removal, most people were prepared. While there may be concern that the event should be dated much earlier, to the Wang Lijun incident, I will show that the Wang incident had little impact on the stock market.

I included in the analysis all the listed firms that were registered in Shanghai as of 2006 and Chongqing as of 2012 that have daily return data.²² Firms' political connections were also measured in 2006 for Shanghai and 2012 for Chongqing. These criteria gave me 121 firms in Shanghai and 27 firms in Chongqing.²³ The small number of observations would be a concern if I found null results in the Chongqing case, because I would not know whether it is the lack of substantive effect or the low degree of freedom that produced the null results. However, as I will show later, I do find that

²¹I include the 2 days prior to the event in order to address the possibility of an information leak, which is standard practice in event studies. For a discussion, please see MacKinlay (1997).

²²The daily return data are from the China Securities Market and Accounting Research (CSMAR).

²³Selection bias is a lesser concern because my sample companies constitute the vast majority of all Shanghai-listed firms (133) and all Chongqing-listed firms (35).

Bo's fall has a significant effect on certain firms in Chongqing, and the small N only makes it harder to obtain the results.

I then estimate the abnormal return and cumulative abnormal return during the event window $[-2,2]$ using the standard event study methodology. Normal return is the expected return without conditioning on the event taking place. Abnormal return is defined as the actual *ex post* return of security during the event window $[-2,2]$ minus the normal return of the firm during the event window $[-2,2]$. I use the estimation window $[-110, -10]$ to estimate the normal return based on the "market model."²⁴

The following specification is estimated using ordinary least squares to test the argument that political connections determine firm value:

$$CAR_{i\tau} = \alpha + \beta CONNECTION_i + \mathbf{X} + \epsilon_{i\tau}, \quad (1)$$

where $CAR_{i\tau}$ is the estimated cumulative abnormal return of firm i during event window τ ($[-2,2]$), $CONNECTION_i$ is one of the seven measures of political connections (all indicators), and \mathbf{X} includes a number of controls such as AGE to consider the maturity of a firm and industry fixed effects to control for sectoral variations (Hsueh 2011). Robust standard errors are estimated to tackle heteroskedasticity.

Results

Figure 1 summarizes the results. For each line representing a *separate* regression, the black dots are the estimated coefficients for the Bo Xilai 2012 event, and the white dots represent the same for the Chen Liangyu 2006 event.²⁵ The lines represent the 95 % confidence intervals, and the small bars the 90 % confidence intervals. As the figure shows, around the time when Bo was removed, connected firms experienced a 5-day cumulative abnormal return of -2.91% compared to firms not connected to the *national* government, and this difference is significant at the 0.05 level. Surprisingly, firms' connections with the Chongqing *local* government did not affect their cumulative abnormal returns. Other types of connections, including those with parliament and the PLA, did not matter as much.²⁶

Conversely, around the time when Chen was removed, *locally* connected firms were affected: firms connected to the Shanghai local government experienced a 5-day cumulative abnormal return of -2.29% , and this effect is significant at the 0.05 level. Other types of connections are not significant at this level.²⁷

²⁴The procedure and simple t tests are presented in Section 3 in the [web appendix](#).

²⁵I also estimated a "fully loaded" model that includes all the connection variables, but because of a low degree of freedom ($N = 27$, # of variables = 11), none of the connection variables is significant.

²⁶I did not show the results of firms connected to the CCP Congress because there are so few cases. Results are available upon request.

²⁷The null results of these other connections might be due to two reasons. First, according to my theoretical expectations, parliament and military connections are robust to leadership changes. Second, the null results might be caused by the low degree of freedom, because few firms were connected to parliament or the PLA. I argue that the null results are more likely to be due to substantive, rather than statistical, explanations, because with only seven firms connected to the national government in Chongqing, the variable NATIONAL GOVERNMENT is still significant; the low degree of freedom of these other connection variables should not prevent them from being significant if they are substantively important.

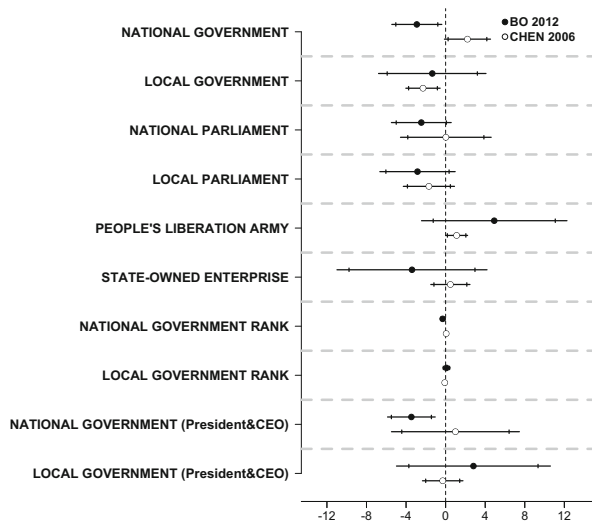


Fig. 1 The value of political connections. *Notes:* Each line represents a *separate* regression. The dependent variable is the 5-day cumulative abnormal return. National Government, Local Government, National Parliament, Local Parliament, and People's Liberation Army are all dummy variables that indicate whether a firm is connected to these organizations. State-Owned Enterprise is a dummy variable measuring whether the state was the ultimate shareholder of a firm. National Government Rank and Local Government Rank are continuous variables measuring the ranks of positions according to the 15-level hierarchy specified in China's Civil Service Code. National Government (President&CEO) and Local Government (President&CEO) are indicators measuring whether the firm's chairman or CEO used to work in the national or local government. Every regression controls for AGE and industry fixed effects. The *black dots* are estimates using the Chongqing sample; the *white dots* are estimates using the Shanghai sample. *Lines* represent the 95 % confidence intervals, and the *small bars* 90 % confidence intervals, both of which are based on robust standard errors. The results that generate this graph are presented in Tables 13 and 14 in the [web appendix](#)

How substantively important are these effects? Taking into account the market capitalization of the affected firms and the size of the local economies, during the five trading days around Bo's removal, the Chongqing economy experienced a negative connection-induced shock of \$311 million, which represents 0.17 % of the city's GDP at that time. In Shanghai in 2006, during the 5 days around Chen's removal, connected firms lost \$829 million—or 0.64 % of the city's GDP. The magnitude of the shock is almost equal to how much Hitler's rise added to the value of firms connected to the Nazi movement in 1933 (Ferguson and Voth 2008). These numbers do not, however, measure the full value of connections, the estimation of which would require a complete regime change.

To test whether state-owned enterprises (SOEs) were affected disproportionately, I also regress CUMULATIVE ABNORMAL RETURN on STATE-OWNED ENTERPRISE, an indicator measuring whether the state was the ultimate shareholder of a firm.²⁸ As Fig. 1 shows, that variable does not have a significant effect at the 0.05

²⁸The share data are from CSMAR.

level on firm value. As some earlier studies suggest, political connection might play a different role in SOEs and private companies. For example, Fan et al. (2007) argue that since SOE managers appointed by the government oversee the operation of the company, they have a negative effect on firm performance. In contrast, connections benefit private companies by “greasing the wheels.” To test this possibility, I interact my connection variables with SOE, but I find no interactive effect between political connections and SOE.²⁹

Does it matter if a board member was a high-ranking official? I coded the connected board members’ ranks according to the Chinese Civil Service Code.³⁰ NATIONAL GOVERNMENT RANK and LOCAL GOVERNMENT RANK measure the total ranks of all the connected board members of each firm.³¹ As Fig. 1 shows, NATIONAL GOVERNMENT RANK is significantly negative in Chongqing but not in Shanghai, and LOCAL GOVERNMENT RANK is insignificant everywhere. In Chongqing, a firm with, say, a former minister would experience a greater -0.30% cumulative abnormal return than one with a deputy minister, holding everything else constant. This suggests that the power associated with the position can also make a difference to firm value.

Some recent studies also use the political connections of major managers, such as the president and CEO, rather than board members to measure a firm’s connectedness (Fan et al. 2007). I argue that the board approach is a more accurate measure in the Chinese context, because many retired officials become independent directors (board members but not major managers) who play a very important bridging role between their firms and their former government organizations. To test whether the events affected firms that had politically connected presidents or CEOs, I create two new variables—NATIONAL GOVERNMENT (President&CEO) and LOCAL GOVERNMENT (President&CEO)—to measure whether a firm’s president or CEO used to work in the national or local government. This new set of connected firms is a subset of those coded using the board approach. The last two rows in Fig. 1 show the results using these two new variables as independent variables. The only significant result is that firms in Chongqing that had presidents or CEOs who used to work in the national government were affected by Bo’s downfall, which is consistent with earlier findings. Shanghai firms that had connected presidents or CEOs were not affected.

The Betting

How should we interpret the opposite findings: national connections mattered in Chongqing, whereas local connections mattered in Shanghai? There are three possible explanations: (1) national connections were more important to firms in Chongqing than in Shanghai (regional variation), (2) national connections were more important to firms in 2012 than in 2006 (temporal variation), and my preferred explanation: (3) Bo Xilai had central government experience, while Chen Liangyu spent his entire career in Shanghai (individual variation).

²⁹Tables 21 and 22 in the [web appendix](#) present the results.

³⁰<http://alturl.com/tedj4> (Accessed August 8, 2013).

³¹For more details about these two variables, please see Tables 5 and 6 in the [web appendix](#).

To examine these possibilities that mix time, space, and individuals, I collected panel data for all listed firms in Shanghai and Chongqing from 2000 to 2012.³² I followed the same procedure of coding the biographies of board members to identify connected firms. The data enable me to rule out the first possible explanation: if national connections were more important to firms in Chongqing than in Shanghai, we should expect to see more nationally connected firms in Chongqing. However, Shanghai had more nationally connected firms than Chongqing (26 vs. 22 %, respectively) in 2012.³³ For explanations (2) and (3), I find that from 2006 (1 year before Bo's arrival) to 2012 (the year of his removal), Chongqing experienced an abnormally rapid increase in the number of firms connected to the national government (100 % growth rate) compared to Shanghai (41 % growth rate). However, during the same period, the percentage of firms connected to the Chongqing local government only increased by 20 %, whereas in Shanghai this percentage grew by 51 %. Chongqing's change is not only abnormal compared to Shanghai; it is also unprecedented: in 2000, Chongqing had 0.09 % firms connected to the national government, and the growth rate from 2000 to 2006 was 50 %.³⁴

Considering the many differences between Chongqing and Shanghai—such as geographic, historic, economic structure, and population—this comparison might not be insightful. I thus conduct a “most-similar system design” test to compare Chongqing to its neighboring province Sichuan. Several facts make this comparison more convincing: both Chongqing and Sichuan are located in Southwest China,³⁵ both regions share a similar history and culture, and more importantly, Chongqing was a municipality within Sichuan Province before becoming a provincial-level city in 1997. I then collected a panel dataset of listed firms in Sichuan from 2006 to 2012.³⁶ The percentage of nationally connected firms in Sichuan increased by only 15 % in these 6 years. Table 2 summarizes all of the comparisons.

These results cannot completely rule out possibility (2), because in all three provinces the number of nationally connected firms increased. However, the abnormal growth of such firms in Chongqing makes possibility (3) more sensible: firms were strategically betting on Bo by hiring people in his extended network, and Bo's prior job as Minister of Commerce and his family connections might make him a bridge between Chongqing firms and the national government. There is some anecdotal evidence suggesting that this is the case. A recent corruption scandal involving Jiang Jiemin—the former director of the State Assets Commission and manager of PetroChina (a large state-owned oil company)—revealed that Jiang helped Bo obtain licenses for Chongqing firms and establish oil plants in Chongqing while Bo was

³²For more information about these panel datasets, please see Tables 7 and 8 in the [web appendix](#).

³³The higher percentage of nationally connected firms in Shanghai is not because Shanghai had more SOEs: in 2012, only 3 % of Shanghai firms were SOEs, compared to 19 % of Chongqing firms.

³⁴The leaders of Chongqing before Bo had no major central government experience.

³⁵This rules out the possibility that Chongqing's outcome was caused by the national “go west” policy to promote development in the western provinces.

³⁶For the panel data on Sichuan firms, please see Table 9 in the [web appendix](#).

Table 2 Comparisons of Chongqing, Shanghai, and Sichuan

Region	Period	Growth rate of firms connected with local government (%)	Growth rate of firms connected with national government (%)
Chongqing	2000–2006	50	50
	2006–2012	20	100
Shanghai	2006–2012	51	41
Sichuan	2006–2012	0	15

the party chief.³⁷ Bo's removal broke the ties between Chongqing firms and Beijing, which caused the stock market reaction.³⁸

The findings suggest that some firms in Chongqing were betting on Bo Xilai, hoping that he would be promoted to the Politburo Standing Committee—the peak of China's power hierarchy—in 2012 during the party's 18th Congress. And Bo was indeed a very ambitious political star because of his charismatic personality and princeling status.³⁹ However, the odds turned against him, and against the political “gamblers.”

Channels

What are the channels through which connections help businesses? I first employ an *ad hoc* approach to identify causal channels by collecting information on the former bureaucrats' roles while in government, and then subject the data to regression analysis to compare firms with and without a particular sort of bureaucrat.

To identify possible channels, I focus on firms that experienced negative cumulative abnormal returns during these two events and collect information about their business activities, which is important because it enables me to match firms and politicians. For example, if a trade company hires a retired official from the Ministry of Commerce, I can infer that the official was responsible for making regulations for the company. For the officials-turned-board members, I code their previous governmental positions into eight categories: Generalist, Regulator, Banker, Tax collector, Law enforcer, Licenser, Labor official, and Other.⁴⁰ Generalist is an official who has broad contacts in the political system, including party chiefs and executives (governors, mayors, heads of party organization departments). Regulator is an official who previously worked in a government organization that directly regulates the industry in which the firm conducts business (“revolving door”), for example, a former land

³⁷For more information about the case, please see <http://alturl.com/z2p4h> (Accessed September 12, 2012), and for the Jiang-Bo connection, please see <http://alturl.com/ooz9c> (Accessed September 12, 2012).

³⁸Table 10 in the [web appendix](#) presents the positions of former bureaucrats in affected Chongqing firms.

³⁹Many observers believed so. Please see <http://alturl.com/re8pi> (Accessed September 12, 2012).

⁴⁰I appreciate that these categories are rather crude and might miss some of the nuances of services an official can offer a firm, but a more disaggregated categorization would decrease the degree of freedom for each variable and undermine its statistical power.

Table 3 Positions of former government officials in affected firms

Position	Shanghai	2006	Chongqing	2012
	Frequency	%	Frequency	%
Generalist	26	24.53	10	11.49
Regulator	62	58.49	40	45.98
Banker	3	2.83	7	8.05
Tax collector	5	4.72	10	11.49
Law enforcer	3	2.83	9	10.04
Licenser	0	0.00	0	0.00
Labor official	0	0.00	0	0.00
Other	7	6.60	5	5.75
Total	106	100.00	81	100.00

bureau official working in a real estate company, or the aforementioned example of a former commerce official working in a trade company. Banker is an official who worked in the People's Bank of China—China's central bank—or its local branches or finance departments that coordinate loans. Tax collector is an official who worked in the tax or audit bureau. Law enforcer is an official who worked in public security, the courts, procuratorate, or legal bureau.⁴¹ Licenser is an official who worked in the industry and commerce administration that is responsible for issuing licenses and permits for new businesses.⁴² Labor official is someone who worked in the labor bureau. Other includes officials who do not belong to any of the above categories.⁴³

Table 3 lists the percentages of these categories in Shanghai and Chongqing. “Revolving door”—a regulator taking a position in a regulated firm—is the most common form of connection. A “captured” regulator can do various things to help a firm, including granting exclusive entry, making favorable policies, sanctioning competitors, approving new projects, and manipulating prices (Stigler 1971). The second-most important connection is Generalist, who can provide an “umbrella” to protect a business. Banker, Tax collector, and Law enforcer are also important. I did not find roles played by Licenser or Labor official, but this does not mean that they are not important. Connections with licensing authorities are critical for investors who want to start a new business; the zero appearance in my data is probably because these firms are already well established. Connections with labor officials are important when a collective labor dispute occurs, but most labor disputes are settled internally (Gallagher 2005).

I then conduct regression analyses to compare the cumulative abnormal returns of firms with and without a particular type of former bureaucrat. Each line represents a

⁴¹In a recent study, Ang and Jia (2014) showed that politically connected firms are more likely to go to court when having a dispute.

⁴²It is sometimes difficult to differentiate Licenser from Regulator, because some government organizations, such as the National Development and Reform Commission, can both regulate and license. Here, I define Licenser as a government function that issues permits for new businesses, which is exclusive to the industry and commerce administration.

⁴³For the positions of former bureaucrats in each firm, please see Tables 11 and 12 in the [web appendix](#).

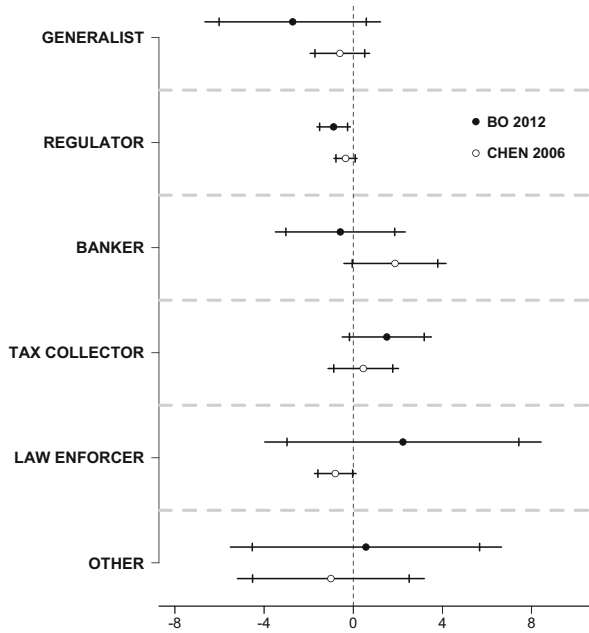


Fig. 2 Testing causal channels. *Notes:* Each line represents a *separate* bi-variate regression. The dependent variable is the 5-day cumulative abnormal return. Generalist, Banker, Tax collector, Law enforcer, and Other are all continuous variables measuring how many of these former bureaucrats a firm has. The *black dots* are estimates using the Chongqing sample; the *white dots* are estimates using the Shanghai sample. *Lines* represent the 95 % confidence intervals, and the *small bars* 90 % confidence intervals, both of which are based on robust standard errors. The results that generate this graph are presented in Tables 15 and 16 in the [web appendix](#)

separate regression; Fig. 2 presents the results. The regressions confirm the findings in the descriptive analysis: firms with former generalists and regulators experienced higher negative returns 2 days before and after the event date, although the effect of Generalist is insignificant in both events, and the effect of Regulator is insignificant in Shanghai. The effects of other channels are not significant, except that firms with former law enforcers had significantly negative returns in Shanghai.⁴⁴

These results are only suggestive, because they are strongly associated with the feature of the event (for example, Chen’s dismissal might only have affected the legal organizations but not the Bureau of Labor in Shanghai). The wide range of “captured” agencies resonates well with the “buying supermajorities” (Groseclose and Snyder 1996) and “fragmented authoritarianism” arguments (Lieberthal 1992; Mertha 2009) that firms must build over-sized coalitions.

⁴⁴Again, there is a trade-off between statistical significance and power because of the small number of cases in some of the categories. However, the fact that firms were not interested in hiring licensers and labor officials itself reveals the less important role these positions can play.

Robustness Checks

I conduct five robustness checks. First, one might be concerned that the information about the purges might be leaked before the event dates, or wonder what happened to the firms after the event window. I extend the event window to $[-10,10]$ and see how the results change every day using daily Abnormal return as the dependent variable. No significant results are found outside the original $[-2,2]$ event window. The results also imply that these shocks were transient.⁴⁵

Second, one might worry that the Wang Lijun incident (visiting the US consulate in February), which predated Bo's removal, might "suppress" part of the Bo effect. To see whether the Wang incident had any impact in Chongqing, I specify February 9, 2012—the date of the first official report of Wang's treason—as a new event date and conduct an event study following the same procedure. This did not change the results.⁴⁶

Third, one might think that there were some confounding events near the time they were purged. I searched major newspapers to see whether there were major national or local events around September 25, 2006 or March 14, 2012.⁴⁷ No major events happened in Shanghai. However, on March 14, 2012, in then-Premier Wen's press conference he announced a tightening of control over the real estate market.⁴⁸ It is possible that this remark influenced the stock prices of real estate companies. I therefore excluded all the real estate companies in the Chongqing sample, and the results changed little, except that the effect of National Government became less significant, but it still exceeds the 0.1 level. This implies that Wen's remark might have contributed to the overall effect, but it does not change my basic conclusions.⁴⁹

Fourth, one might ask whether—since Bo Xilai spent his early political career in Liaoning Province, first in the city of Dalian (1985–2000) and then as governor of Liaoning (2000–2004)—his downfall had any impact on Liaoning. To answer this question, I collected data on firms registered in Liaoning Province and tested whether they were affected by Bo's removal. Neither firms connected to the national government (coefficient = -0.03 , robust standard error = 1.64) nor those connected to the Liaoning local government (coefficient = 1.16, robust standard error = 1.39) were affected by this event. A dummy variable indicating firms registered in Dalian—the "launch pad" of Bo's political career—has no significant effect either (coefficient = 0.37, robust standard error = 1.60).

Last, one interesting extension would be to investigate whether firms connected to the "winners" of the purges experienced positive returns. While there was no obvious winner in the Chen event, some pundits believed that Wang Yang—then party chief of Guangdong Province—was Bo's political rival and might have benefited from his

⁴⁵The results are presented in Tables 17 and 18 in the [web appendix](#).

⁴⁶Table 19 in the [web appendix](#) presents the results.

⁴⁷I searched national media websites, including [xinhuanet.com](#), [china.com.cn](#), and [sina.com.cn](#), and I searched [shanghaidaily.com](#) for Shanghai local news and [cqnews.net](#) for Chongqing local news.

⁴⁸<http://alturl.com/tzxab> (Accessed August 7, 2013).

⁴⁹Table 20 in the [web appendix](#) presents the results.

purge.⁵⁰ I collected information on all 247 listed firms in Guangdong, but found no significant effects for any type of connection in Guangdong using the same event study procedure.⁵¹

Conclusion

Political connection is an important concept that has attracted recent scholarly attention. Faccio (2006) argues that political connection complements corruption in “squeezing the state.” Wang (2015) contends that politically connected firms impede the development of effective rule of law in developing countries. Most empirical studies have focused on estimating the effect of political connections without exploring how they are formed.

My study generates three observations that differ from the findings in prior studies. First, I show that connections are not exogenous. Firms strategize about when (and with whom) to build connections, and this strategy is endogenous to politicians’ career prospects. Second, not all types or levels of connections matter. Aggregating connections (as prior research did) fails to detect the nuances of different types of connections. And there is a qualitative difference between connections in democracies and autocracies: while it is important to connect with MPs in democratic settings (Roberts 1990), it is crucial to connect with the government in autocracies. Disaggregating types and levels of connections shows that firms prefer to buy “super-majorities” rather than “minimal-winning coalitions” to tackle political uncertainties and competitions. Third, the most important channel through which firms connect with the state is by hiring former regulators.

Three broader implications can be drawn from this research. First, my findings shed light on a much less discussed type of risk to which authoritarian regimes are exposed: politically connected firms translate political volatilities into market volatilities. Although this problem is present in both democracies and autocracies, and autocracies do not have regularized political cycles and politics often operate in secrecy, politically connected firms in autocracies are more likely to be subjected to unpredictable shocks resulting from personalized and factional struggles.

Second, my focus on regime ties rather than personal ties differentiates this study from previous work that focuses on ties with individual politicians (Fisman 2001). While these previous studies show that political connections are personalized, I contend that firms can “capture” the whole regime through powerful politicians. Consistent with works that show widespread clientelism in developing countries (Stokes 2005; Gans-Morse et al. 2014), my study adds a new perspective to our understanding

⁵⁰Many believed that Wang, a liberal who encouraged the development of the private sector and foreign investment, represented a different ideology among Chinese elites than the conservative Bo. Wang was also Bo’s predecessor as party boss of Chongqing. Both were promising candidates for the Politburo Standing Committee at the party’s 18th Congress before Bo’s purge. Please see <http://alturl.com/5miyw> (Accessed July 8, 2014).

⁵¹Table 23 in the [web appendix](#) presents the results.

of clientelism by examining the broker role played by politicians in connecting the state and interest groups.

Lastly, the findings also help explain policy failures in tackling pressing issues such as pollution, corruption, violation of intellectual property rights, and food safety in developing countries, where economic and political interests are often intertwined. The fact that firms have many former regulators on their boards makes it challenging for these countries to deal with these issues simply by designing better laws and regulations on the books.

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