



**Bank Finance for Private Firms in China: Does Political Capital
Still Pay off?**

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Abstract:

This paper investigates whether political connections help private firms in China gain access to commercial bank loans. Based on data from the 2012 Nationwide Survey of Private Enterprises in China, it finds that (1) politically connected firms were more likely to have access to commercial bank loans; (2) political connections were more important for smaller private firms and for private firms in industries where state-owned enterprises had a stronger presence; (3) political connection was less important in provinces where private sector development was more advanced; and (4) loan allocation based on political connections did not appear to be inconsistent with commercial principles as politically connected firms were also more profitable.

Keywords: bank lending, private firms, political connection, China

JEL Classification Numbers: G21

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Bank Finance for Private Firms in China: Does Political Capital Still Pay Off?

1. Introduction

The growth of the private sector is regarded as the driving force of China's successful transition from a centrally planned economic system to a market-oriented one (Lardy, 2014). Today, the private sector is the main contributor of China's output and employment. As shown in Table 1, private sector's share in total gross industrial output increased from 22.4% in 1978 to 71.6% in 2008. In 1978 private enterprises employed about 21.7% of the total urban workforce; by 2013 that figure had risen to 83.4%. The fast growth of China private sector throughout the reform era has been achieved despite minimum support from formal financial institutions. Before the late 1990s, the private sector was virtually denied access to bank lending. It was not until 1997 when the government explicitly allowed banks to extend loans to private enterprises. Although subsequent government policies and competition from new entrants to the banking sector have helped to improve loan access in general, the private sector still very much lags behind the state firms in bank financing. Statistics quoted by Firth et al. (2009) indicates that the private sector only accounted for 7% of the total bank lending. The private sector's share of short-term loans is even lower: as of 2009, private firms received only 4.85% of total short-term loans (see Table 1).

In the face of limited access to bank credit, private enterprises relied on retained earnings (Lardy, 2014) and informal channels of finance such as trade credits and inter-personal loans (Allen et al., 2005). This however does not imply that firms do not consider bank lending as an important source of external finance. In fact survey data cited in Zhou (2009) suggest that bank financing was more important than informal finance for many private firms. In order to obtain bank loans, firms have employed various strategies to make themselves stand out in the crowd of businesses seeking the same financial resource. Firms may resort to bribery (Chen et al., 2013), or even try to obtain significant holdings of bank ownership (Lu et al., 2012) to overcome their financial constraints. However the most well-known and frequently-practiced strategy is probably to build

political connections to influence lending decisions of bank managers (Brandt and Li, 2003).

There are at least two reasons why political connections may be perceived as a good investment for private entrepreneurs aiming to improve their access to bank loans. First, the dominance of state-ownership in the banking sector and the incentives faced by bank managers mean that political considerations are likely to feature prominently in loan decisions. Second, even if loan decisions are made on mostly commercial basis, strong political connections can be used as a signal of credit-worthiness which helps to overcome the problem of information asymmetry. Does private entrepreneurs' political capital in fact pay off? To answer this question, we analyze data from the 2012 Nationwide Survey of Private Enterprises in China to see whether political connections helped private firms obtaining loans from commercial banks.

Our main findings are (1) politically connected firms were more likely to have access to commercial bank loans; (2) political connections were more important for smaller private firms and for private firms in industries where state-owned enterprises had a stronger presence; (3) political connections were less important in provinces where private sector development was more advanced; and (4) loan allocation based on political connections did not appear to be inconsistent with commercial principles as politically connected firms were also more profitable. We also find that for those firms that were able to borrow from commercial banks, political connections did not have a significant effect on the size of their bank loans relative to total loans. This seems to suggest that political connections were useful in gaining access to bank finance, but other factors were more important in determining the extent to which a firm can rely on commercial banks for their borrowing needs. Our analysis shows that a firm tended to have a larger share of commercial bank loans in its total loans if it was located in a province that had a more developed private sector.

Our paper relates to the broad literature on the use of political connections as a tool for gaining economic advantages. Generally speaking political connections are more useful in countries where the existing institutions are weak – the legal system may not

provide adequate protection for private property rights; contracts may not be enforced and government policies and bureaucracy may discriminate private businesses (McMillan and Woodruff, 2002; Guriev, 2004). When entrepreneurs cannot rely on formal market-supporting institutions to provide a secure environment conducive to fair competition and business growth, they look for substitutes. Establishing close ties with the government seems to be an obvious alternative that firms turn to, not just in China but also in many other countries. Faccio (2006) studies over 20,000 listed companies from 47 countries and finds that larger shareholders or top officers are more likely to have strong political connections (i.e., are members of parliament, ministers, or closely related to a top politician or party) in countries with weak institutions. With strong political connections, firms may enjoy better protection of property rights (Hay and Shleifer, 1998), more favorable regulatory conditions (Agrawal and Knoeber, 2001), and easier access to resources that are not effectively allocated in the marketplace. This paper focuses on the relationship between political connections and private firms' access to bank finance in China.

There is much international evidence that establishes a positive link between political connections and access to finance. Dinc (2005) demonstrates the prevalence of substantial political influence on lending by government-banks in emerging markets. Khwaja and Main (2005) show that between 1996 and 2002, politically connected firms in Pakistan borrowed 45% more and had 50% higher default rates than firms with no political connections. Leuz and oberholzer-Gee (2006) suggest that firms with strong political connection are more likely to receive funding from the domestic market in Indonesia. Classessens et al. (2008) find that firms with political connections in Brazil have preferential access to bank loans.

In the Chinese context, three related themes regarding bank finance emerge from the empirical literature. First, state-owned enterprises (SOEs), by their strong political connections through ownership, enjoy preferential access to bank loans (Brandt and Li, 2003; Gordon and Li, 2003; Lu et al. 2005; Li et al, 2008; and Poncet et al., 2010). Second, regardless of ownership structure, a firm that is headed by someone with strong

political connections is more likely to obtain external finance. For instance, based on 2005-07 data of publicly listed Chinese firms, Chan et al. (2012) find that firms without politically connected CEO or Chairman were financially constrained, whereas politically connected firms were not. Cull et al. (2015) came to a similar conclusion in their analysis of the World Bank's 2005 Enterprise Survey of Manufacturing firms. Third, political connections appear to be especially useful for private firms. Based on the 2000 Nationwide Survey of Chinese Private Enterprises (NSPE), Zhou (2009) finds that having a politically connected owner was associated with lower self-reported difficulty in gaining bank finance and a higher probability of actually obtaining bank loans. An analysis of the 2002 NSPE also suggests that owners who were Communist Party members were more likely to get bank loans (Li et al., 2008). For large privately controlled listed companies, Wang (2015) shows that the appointment of politically connected independent directors on the board of a privately controlled company improved the company's access to both bank finance and government subsidy.

Our paper contributes to the empirical literature by analyzing the latest available data, namely the 2012 NSPE to see whether political capital still paid off in terms of enhancing private entrepreneurs' access to bank finance. Apart from finding an updated answer in the affirmative, the paper also investigates certain conditions under which political connections play a more significant role. In particular, it finds that political capital had greater utility for smaller firms and firms in industries more heavily dominated by state-owned enterprises. In contrast, the role of political capital is weaker where private sector development is more advanced. This is consistent with the conjecture that private firms use political connections as an effective tool for overcoming discrimination by the predominantly state-owned banks, and as a signal of credit worthiness. Finally the paper provides some evidence which suggests that allocating bank loans based on political connections did not necessarily violate commercial principles because politically connected firms were also more profitable.

The rest of the paper is organized as follows. Section 2 provides some institutional background that helps to explain the willingness of private entrepreneurs to

invest in political capital. Sector 3 describes our hypotheses, estimation method and data. Section 4 presents the empirical results. Section 5 concludes.

2. Institutional background

2.1. Discrimination against private firms in the Chinese loan market

Bank lending to the private sector in China is a relatively recent phenomenon. It was not until 1997 when the government allowed banks to extend loans to private enterprises (Park and Sehart, 2001). In subsequent years, the government has introduced various regulations in an attempt to improve loan access by private firms (Chen et al., 2013). Nevertheless, as statistics cited in the introduction section indicate, the private sector still receives a very small share of the total bank credit, in comparison to the contribution it makes to the economy. Why are private firms discriminated against in the loan market?

One explanation is that Chinese banks are predominantly state-owned and loan decisions have traditionally been heavily influenced by the government which until recently had a strong bias in favor of the state sector. In the 1980s and most of 1990s, the central bank had annual credit plans that determined the interregional allocation of funds. In addition, the State Planning Commission determined credit targets for each bank branch in each province. Both the credit plan and the targets were designed to meet policy goals of the government; neither took into account the financing demand from the private sector. When central's bank finally abandoned the credit plan in 1998, policy lending remained important for banks and overall loan decisions were found to be inconsistent with economic fundamentals (Park and Sehart, 2001). From late 1990s, the government initiated a long process of commercializing state banks. Commercialization were considered to be complete for the top-tier banks (the big-5 banks plus 12 joint-stock commercial banks) by 2010 when all of them were listed on the stock market (Chen et al., 2013; Elliott and Yan, 2013). While the government has gradually moved away from directly dictating allocation of loans during the commercialization process, its majority

ownership of the listed banks means that it still has substantial power to influence loan allocations.

In addition to state-ownership of banks, the incentives of bank managers also create a lending bias against the private sector. This is because by lending to state firms, a bank manager can establish good relations with government officials who are in a position to confer private benefits to the bank manager (Brandt and Li, 2003). Even if banks make their loan decisions on commercial basis, they would still likely to favor state-owned firms for at least two reasons.

First, banks consider loans to state sector borrowers to be safer. For example, some state-owned enterprises have strong financial performance as they operate in profitable sectors (e.g., telecommunication, oil and petrochemicals) which restrict entry by private sector competitors. State-owned enterprises also get preferential treatment in government investment projects which give them a competitive edge over private firms. Perhaps most importantly, loans to the state owned enterprises carry an implicit government guarantee. If the borrower experiences financial difficulty, the bank can reasonably expect that the government can use fiscal resources to ensure that the lending bank does not suffer a loss from loan default.

Second, the problem of asymmetric information is more serious in lending to the private sector. As noted earlier, lending to the private sector was not officially permitted until 1997, which means that banks have not had sufficient time to accumulative “soft” information on private firms to establish a trusting relationship with them. The information asymmetry problem is exacerbated by the private entrepreneurs’ reluctance or inability to reveal financial information to outsiders. Since many private entrepreneurs perceive the protection of private property rights in China to be weak and are uncertain about future government policies, they tend to be very cautious about disclosing true financial information to banks (Zhou, 2009). Moreover, many private firms, especially small and medium enterprises (SMEs) practice informal accounting, which makes it difficult for them to provide relevant information that banks can rely on (Berger and Udell, 2006).

2.2. The utility of political connections in China

To overcome discrimination in the loan market (and in other areas where politics has a strong influence on business affairs) private entrepreneurs attempt to build political connections. The definition of political connection varies in the existing literature. A firm may be considered politically connected if its CEO or chairman is a member of the Communist Party (Li et al., 2008), a member of the People's Congress (PC) or a member of the Chinese People's Political Consultative Conference (CPPCC) (Zhou, 2009), or is or was a government official or a military officer or someone with a political ranking at the provincial or ministerial level (Wang, 2015). In this paper, we follow Zhou's (2009) in defining a firm to be politically connected if its (majority) owner is a member of PC or CPPCC.

The People's Congress (PC) is the legislative body in China and is, according to its official website, "the supreme organ of state power in China". The main functions of PC include constitutional amendments, legislation, appointments of top officials and determination of major state issues.¹ PC members are elected for a term of five years. The Chinese People's Political Consultative Conference (CPPCC) is a body of multi-party cooperation and political consultation. CPPCC members are selected through recommendations by a wide variety of organizations. CPPCC members also have a term of five years. Members are selected to "represent all areas and sectors of society of China, have social influence and are capable of participating in the deliberation and administration of state affairs."²

From the perspective of a private entrepreneur, becoming a PC or CPPCC member means joining the political elite, which provides opportunities to build personal networks with other people with similarly high political status and power, including government officials, bankers and other people with specific bureaucratic powers. In the current political environment, important political figures have considerable influence over banks' loan allocation and personnel decisions at banks. Executives in the large state

¹ http://www.npc.gov.cn/englishnpc/Organization/node_2846.htm

² <http://www.CPPCCc.gov.cn/zxww/2012/07/03/ARTI1341301557203107.shtml>

banks are effectively high-level government officials in terms of their political ranks and method of appointment (Elliot and Yan, 2013). As a member of the power elite, the politically-connected private entrepreneur can trade favors with other powerful people to obtain preferential access to bank finance. Moreover, through his/her social network, the private entrepreneur can directly or indirectly build a personal relationship with a banker which can form the basis for commercially viable relationship lending. Such personal relationship helps curtail opportunistic behavior because both parties have an incentive to maintain an established relationship.

Another utility of having political connections for a private entrepreneur is that it can be used as a clear signal of credit-worthiness. The highly selective membership to PC or CPPCC is a token of recognition by the state of the entrepreneur's contribution to society (Zhou, 2009). Such social contribution may take the form of promoting local economic growth, providing employment opportunities, creating high-quality product brands, philanthropic contributions and so on, which are typically correlated with past commercial success. In addition, since a PC or CPPCC member is likely to have connections with other political elite, he/she can be expected to receive preferential treatment in other areas, for instance, lighter regulatory burden, favorable taxes and other government support (Li et al., 2006). This will enhance the firm's future profitability. Therefore given the asymmetrical information problem, it would be commercially sensible for a bank to favor politically connected private firms over those with no political connections.

3. Empirical model and data

3.1. Hypotheses and estimation strategy

We have argued above that private firms are discriminated in the Chinese formal loan market and building political connections (in the form of becoming a member of PC or CPPCC) can be an effective way of overcoming such discrimination. This suggests our first hypothesis:

Hypothesis 1: Politically connected private firms are more likely to obtain access to commercial bank loans.

As a tool for overcoming loan market discrimination, political connections are likely to be more important in situations where discrimination is more severe. Since smaller private firms and private firms that compete more intensely with state-owned enterprises tend to face worse discrimination, we have:

Hypothesis 2: Political connections are more important to smaller firms.

Hypothesis 3: Political connections are more important in industries with higher levels of SOE involvement.

To test Hypotheses 1-3, we estimate the following equation:

$$Access = \alpha_0 + \alpha_1 PC + \alpha_2 (PC)(Size) + \alpha_3 (PC)(SOEInd) + \gamma' X + \varepsilon \quad (1)$$

where *Access* measures whether a firm has access to bank loans; *PC* is political connections, $(PC)(Size)$ measures the interaction between political connections and the size of the firm (*Size*), $(PC)(SOEInd)$ measures the interaction between political connections and the degree of SOE involvement in the industry that the firm belongs to (*SOEInd*). *X* is a vector of control variables that falls into three categories: (1) firm characteristics: the firm's age (*FAge*), Size (*Size*), and the industry it belongs to (*Ind*); (2) owner's characteristics: the owner's age (*Age*), gender (*Gender*), and education (*Edu*); (3) the firm's operating environment: private sector development in the province the firm is located (*PriDev*), and SOE presence in the industry the firm operates (*SOEInd*).

Our hypotheses suggests that α_1 , α_3 would be positive, and α_2 would be negative. Apart from testing our hypotheses 1-3, we also perform two further tests. The first looks at whether political connections affected the degree to which a firm can rely on commercial banks for their external financial needs measured by the ratio of bank loans to total loans (*BL/TL*). Since *BL/TL* is not observable for those firms that did not have commercial bank loans, we apply the Heckman two-step procedure to correct for sample selection bias (Heckman, 1976). The first-step regression equation explains a firm's reliance on commercial bank loans:

$$BL/TL = \beta_0 + \beta_1 PC + \beta_2 FAge + \beta_3 PriDev + \beta_4 SOEInd + \mu_1 \quad (2)$$

The second-step selection equation describes access to commercial bank loans:

$$Access = \lambda_0 + \lambda_1 PC + \lambda_2 Age + \lambda_3 Gender + \lambda_4 FAge + \lambda_5 Size + \lambda_6 PriDev + \lambda_7 SOEInd + \mu_2 \quad (3)$$

In an attempt to shed some light on whether political connections can be used as a signal of credit-worthiness, we also look at the relationship between political connection and profitability of the firm:

$$Profit = \theta_0 + \theta_1 PC + \theta_2 Age + \theta_3 Gender + \theta_4 Edu + \theta_5 FAge + \theta_6 Size + \theta_7 PrivDep + \theta_8 SOEInd + \theta_9 (PC)(PrivDep) + e \quad (4)$$

where *Profit* is profitability of the firm measured by the ratio of profit to sales. Ideally we would want to test whether current political connections are associated with good profitability in the past which may be used as an indication for future profitability. Since only have profit data for 2011, we cannot directly test the relationship between political connection and past performance. However because membership to PC and CPPCC in the 2012 survey are for a term of 5 years from 2008-2012, we can perform a thought experiment by asking: from the vantage point of 2012, were political connections associated with higher past profitability in 2011? The answer to this question would be yes if the estimate for θ_1 is positive.

3.2. Data

The data used in this study come mainly from the 10th Nationwide Survey of Privately Owned Enterprises in China. We also supplement the survey data with official statistics characterizing the operating environment of the private firms. The survey was jointly conducted in 2012 by four organizations: the United Front Work Department of the Central Committee of the Chinese Communist Party, the All China Industry and Commerce Federation, the State Administration for Industry and Commerce, and the China Society of Private Economy at the Chinese Academy of Social Sciences.

The survey sampled 5073 private firms, which is about 0.052% of the population of 9.677 million private firms registered at the end of 2011. To achieve a balanced representation across regions and industries, the survey used a multistage-stratified random sampling method. At the first level, the survey group decided on the total number of private firms to be surveyed and selected the participating cities/counties for each of the 31 provinces. The number of firms to be surveyed in each province is proportional to its share of private firms in the national total. The same method was used to decide the number of participating firms in each city/county and industry sector. Once it's determined how many firms to survey in each subpopulation, the participating firms were then randomly selected from the subpopulation.

The survey of each firm involved a face-to-face interview with the firm's main owner (the "owner"), and the questionnaire was filled by a trained survey team member during the interview. The survey collected information about the owner, the firm, and the firm's business environment. As most questions about the firms pertain to 2011, we focus our analysis on that year and have excluded firms in the financial intermediation industry and firms with missing information required for our analysis.

3.3. Variables

The definitions of all variables used in our analysis and their summary statistics of the variables in our analysis are presented in Table 2 and Table 3, respectively. We briefly explain the variables below beginning with dependent variables. We use two binary variables to gauge a firm's bank access: *Access1* measures whether a firm has a positive balance from a commercial bank at the end of 2011, if yes, *Access1* equals 1; otherwise it is 0. *Access2* measures whether a firm has a positive share of total loans from a commercial bank, if so, *Access2* equals 1; otherwise it is 0. *Access1* includes firms that had zero loan balance at the end of 2011. In contrast, *Access2* only includes firms that had a positive loan balance (either from a commercial bank or from informal sources). We have 4293 observations for *Access1*, but only 1941 for *Access2*. We also look at the degree to which a firm relies on commercial bank loans to meet its external financial needs. This is measured by the ratio of a firm's commercial bank loan balance to its total

loan balance (*BL/TL*), both at the end of 2011. Another dependent variable is the profitability of the firm (*Profit*) measured by the ratio of net profit to sales.

The variable of our main concern is political connections (*PC*). It is measured by a binary variable which equals 1 if the main owner of a firm is either a member of the People's Congress (PC) or a member of the Chinese People's Political Consultative Conference (CPPCCC); and 0 otherwise.

As for the control variables, firm size (*Size*) is measured by the number of (full-time equivalent) employees in the firm. Private sector development (*PriDev*) is measured by private sector employment as a proportion of total employment in a province. The degree of SOE involvement in the industry that the firm belongs to (*SOEInd*) is measured by employment in SOE and collectively-owned enterprises as a proportion of total employment in the industry.

4. Empirical Results

4.1. Hypotheses testing

We test hypotheses 1-3 by estimating equation (1) using two measures of bank loan access: *Access1* which applies to all firms; and *Access2* which applies to only firms with positive loan balances (from commercial banks or other sources). For each measure, we report in Table 4 results with and without including industry dummies.

As shown in Table 4, the coefficients of political connections (*PC*) are positive and significant in all estimations, which support our hypothesis 1 that politically connected firms have better access to commercial bank loans. The coefficients of the interactive term (*PC*)(*Size*) are negative and significant in all estimations, which means that the effects of political connection are larger for smaller firms. This is consistent with our hypothesis 2 that political connections are more important to smaller firms. The interactive term (*PC*)(*SOEInd*) is positive and significant in estimations 1, 3, and 4, but not significant in estimation 2. Thus we have some evidence in support of our hypothesis 3 that political connection is more important to firms in industries with higher levels of SOE presence. Thus overall, our analysis shows that, consistent with our hypotheses,

private firms for overcoming discrimination in the formal loan market; and that the payoff was larger where discrimination was stronger.

In addition to political connections, our analysis has identified other factors that had significant positive effects on bank loan access, namely, *Gender* (estimations 1 and 2), *Edu* (estimations 2-4), *Age* (estimations 1-4), *Size* (estimations 1-4) and *PrivDep* (estimations 3 and 4). *SOEind* (estimations 1 and 3) is found to have had a negative impact on bank loan access. In other words, male owners and owners with higher education attainment were more likely to obtain bank loans; older, larger firms and firms located in provinces with higher levels of private sector development were more likely to obtain bank loans. In contrast, firms operating in industries with stronger SOE presence had worse access to bank loans. These findings are largely consistent with literature on bank lending (Berger and Udell, 1998; Beck et al., 2004). Notably the industry dummy variables are mostly insignificant (not reported in Table 4), which suggests that there was little variation of loan access across industries.

4.2. Further tests

Having confirmed our hypotheses that political connections did enhance private firms' access to commercial bank loans, we test whether the political connections affect the degree to which a firm can rely on commercial bank loans for their external financial needs. For this test, we apply the Heckman procedure to correct for sample selection bias and then look at the relationship between political connections and a firm's commercial bank loans as a share of its total loans (*BL/TL*). The estimation results, with and without including industry dummy variables, are presented in Table 5.

Consistent with our hypotheses testing results, the selection equation of Table 5 shows that political connections had a significant positive effect on a firm's access to commercial loans. However, after controlling for the sample selection bias, the regression equation shows that the effect of *PC* on *BL/TL* was insignificant, that is, political connections had no significant impact on the degree to which a firm can rely on commercial bank loans for its external financial needs. In our estimation, *BL/TL* was positively influenced by *PrivDep*, which means that a private firm could rely on

commercial bank loans to a greater degree if the firm was located in a province that had more advanced level of private sector development. Thus it appears that political connections enhanced a firm's chance of getting a commercial bank loan, but did not increase the firm's share of bank loan in its total loans.

To get a deeper understanding on possible channels through which political connections may improve a private firm's access to bank loans, we also investigate the relationship between profitability and political connections. As noted earlier, while we only have profit information for 2011, political connections as measured by membership to PC or CPPCC were for a five-year term from 2008-2012, so we can interpret our estimation as revealing the relationship between political connections (in 2012) and past profitability (of 2011). The estimation results, with and without including industry dummy variables, are shown in Table 6. From Table 6, we see *PC* is positive and significant, and the interaction term (*PrivDep*)(*PC*) was negative and significant. In other words, political connections was positively correlated with profitability, but the correlation was weaker in provinces where private sector development was more advanced. It appears therefore that political connections did send a true signal of creditworthiness. The signal value was higher in provinces with less developed private sector probably because the information asymmetry problem was more severe due to banks having less experience of lending to private firms.

5. Conclusion

In this paper, we have studied the relationship between political connections and private firms' access to bank finance in China. Based on data from the 2012 Nationwide Survey of Private Enterprises in China, we have come to four main conclusions.

First, there is strong evidence to suggest that political connections still paid off for private firms in that politically connected firms were more likely to obtain commercial bank loans. However political connections did not appear to have changed the degree to which a firm could rely on commercial bank loans to meet their external financial needs. Second, it appears that political connections were used as a tool to overcome discrimination against private entrepreneurs in the formal loan market, accordingly, the

impact of political connections is higher where discrimination is more severe. Specifically, political connections were more important to small firms and firms operating in industries that had stronger SOE presence. Third, the development of the private sector had the apparent effect of lowering the utility of political connections for gaining bank finance. This is probably because in provinces with more advanced private sector development, banks might have had more experience dealing with private firms, which reduced the severity of information asymmetry problem. Finally, there is evidence to suggest that politically connected firms were also more profitable. It is possible therefore that political connections were (correctly) perceived as a true signal of credit worthiness, in which case, there were good reasons for private entrepreneurs to invest in political capital and for banks to allocate loans (partly) based on political connections. Loan allocation based on political connections need not be inconsistent with commercial principles.

Our results point to two areas where improvements are vital to continued growth of China's private sector. The first is further development of market-supporting institutions that protect private property rights and remove political interference in commercial decision making. As long as private entrepreneurs feel insecure about their political and social status, they will be compelled to devote time and other resources to building political capital as a substitute to unsatisfactory institutions. This would not only result in a waste of real resources and entrepreneur talent, but also contribute to promoting a particular kind of business leaders whose success may depend more on their ability to please the political elite rather than their customers. Secondly, since small and medium enterprises are the main contributors to the real sector of the Chinese economy, the financial sector should be structured in such a way as to meet the needs of the real sector. Currently the Chinese bank sector is dominated by large state-owned banks with limited capability, incentive and experience in lending to private firms. To better serve private firms, more small banks should be allowed to enter and compete in the credit market (Lin and Sun, 2009). If smaller banks can play a much larger role in the loan market, the credit constraints faced by many private firms would likely to ease because smaller banks have a comparative advantage in collecting and utilizing soft information

for relationship lending. The ease in credit constraint would reduce the payoff of political capital for some private entrepreneurs, which hopefully would have the effect of focusing entrepreneurial energy more sharply on value creation instead of rent seeking.

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Table 1. Private sector development and access to bank short term loans

Year	(1) Urban Employed Persons (10 000 persons)	(2) Employed Persons of non State-owned Urban Units (10 000 persons)	(3) share: (2)/(1)*100 (%)	(4) Gross Industrial Output Value (100 million yuan)	(5) Gross Industrial Output Value of State-owned Enterprises (100 million yuan)	(6) share: [1-(5)/(4)] *100 (%)	(7) Financial Institutions Short-term Loans (year-end) (100 million yuan)	(8) Loans to Private Enterprises and Self-employed Individuals (year-end) (100 million yuan)	(9) share: (8)/(7) *100 (%)
1978	9514	2063	21.68	4237.00	3289.18	22.37			
1980	10525	2506	23.81	5154.00	3915.60	24.03			
1985	12808	3818	29.81	9716.00	6302.12	35.14			
1986	12809	3476	27.14	11194.00	6971.12	37.72			
1987	13783	4129	29.96	13813.00	8250.09	40.27			
1988	14267	4283	30.02	18224.00	10351.28	43.20			
1989	14390	4282	29.76	22017.00	12342.91	43.94			
1990	17041	6695	39.29	23924.00	13063.75	45.39			
1991	17465	6801	38.94	26625.00	14954.58	43.83			
1992	17861	6972	39.03	34599.00	17824.15	48.48			
1993	18262	7342	40.20	48402.00	22724.67	53.05			
1994	18653	7439	39.88	70176.00	26200.84	62.66			
1995	19040	7779	40.86	91894.00	31220.00	66.03			
1996	19922	8678	43.56	99595.00	36173.00	63.68			
1997	20781	9737	46.86	113733.00	35968.00	68.38			
1998	21616	12558	58.10	67737.14	33621.00	50.37	60613.20	471.60	0.778
1999	22412	13840	61.75	72707.04	35571.00	51.08	63887.60	579.10	0.906
2000	23151	15049	65.00	85674.00	40554.37	52.66	65748.10	654.60	0.996
2001	24123	16483	68.33	95449.00	42408.49	55.57	67327.20	918.00	1.363
2002	25159	17996	71.53	110776.48	45178.96	59.22	74247.90	1058.80	1.426
2003	26230	19354	73.79	142271.22	53407.90	62.46	83661.15	1461.59	1.747
2004	27293	20583	75.42	187220.70	65971.10	64.76	86840.60	2081.59	2.397
2005	28389	21901	77.15	251619.50	83749.92	66.72	87449.20	2180.75	2.494
2006	29630	23200	78.30	316588.96	98910.45	68.76	98534.40	2667.60	2.707
2007	30953	24529	79.25	405177.13	119685.65	70.46	114477.90	3507.66	3.064
2008	32103	25656	79.92	507448.30	143950.00	71.63	125215.83	4223.82	3.373
2009	33322	26902	80.73				146611.00	7117.00	4.854
2010	34687	28171	81.21						
2011	35914	29210	81.33						
2012	37102	30263	81.57						
2013	38240	31875	83.36						

Note: The national data used are from *China Compendium of Statistics 1949-2009*, and 2010-2014 issues of *China Statistical Yearbook*.

Table 2. Variable definitions

Abbreviation	Variable name	Definition
<i>Dependent variables</i>		
Access1	Access to Commercial bank loans including all firms	Dummy variable, = 1 if a firm has a positive loan balance from a commercial bank at the end of 2011, zero otherwise.
Access2	Access to Commercial bank loans including only firms with a positive loan balance	Dummy variable, = 1 if a firm has positive loan balance and a positive loan balance from a commercial bank; = 0 if a firm has a positive loan balance, but zero loan balance from a commercial bank at the end of 2011.
BL/TL	Commercial bank loans/total loans	Balance of loans from commercial banks /(balance of loans from commercial banks + balance of loans from small financial institutions + balance of interpersonal loans) All loan balances are at the end of 2011
Profit	Profitability	Net profits of 2011/sales of 2011
<i>Independent variables</i>		
PC	Political Connections	Dummy variable, = 1 if the owner is a member of the People's Congress or a member of the Chinese People's Political Consultative Conference at any level, and 0 otherwise
<i>Owner attributes</i>		
Age	Owner age	Owner's age in 2011
Gen	Gender	Dummy variable, 1 = male, 0 = female
Edu	Education	Years of schooling: primary school=5; junior high=8; senior high= 11; college =13, university =15; graduate school = 18
<i>Firm characteristics</i>		
FAge	Firm age	Years of operation in 2011
Ind	Industry	19 dummy variable indicating the industry sector to which a firm belongs
Size	Size	Number of full-time equivalent persons employed (a person employed for the full-year counts as 1, a person employed for more than 6 months but less than 1 year counts as 0.5, and a person employed for less than 6 months counts as 0.25.)
<i>Operating environment</i>		
PrivDep	Private sector development	Private sector employment as a proportion of total employment in a province's urban areas
SOEind	SOE presence	Employment in SOE and collectively-owned enterprises as a proportion of total employment in an industry.

Table 3. Summary statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Access1	4293	0.375495	0.4843069	0	1
Access2	1941	0.6275116	0.4835921	0	1
BL/TL	1941	55.39142	45.95324	0	100
Profit	4212	11.13579	55.64035	-957.1429	2000
PC	4803	0.4232771	0.49413	0	1
Age	4979	44.91504	8.964497	15	83
Gen	5018	0.8367876	0.3695962	0	1
Edu	4949	12.87048	2.603709	5	18
FAge	4790	8.077035	5.308888	0	22
Size	4605	228.1107	1072.441	0	53150
PrivDep	5039	18.38473	13.92252	5.34	55.795
SOEind	4933	37.36345	29.58815	12.7657	99.14679

Table 4. Empirical results: Effects of political connections on bank loan access

<i>Dependent variable</i>	Access1		Access2	
PC	0.555*** (0.077) [0.000]	0.565*** (0.078) [0.000]	0.354*** (0.115) [0.002]	0.336*** (0.117) [0.004]
Age	-0.001 (0.003) [0.720]	-0.003 (0.003) [0.348]	-0.003 (0.004) [0.528]	-0.003 (0.004) [0.494]
Gender	0.208*** (0.065) [0.001]	0.175*** (0.067) [0.009]	0.061 (0.103) [0.554]	0.066 (0.104) [0.527]
Edu	0.006 (0.009) [0.477]	0.016* (0.009) [0.085]	0.028** (0.013) [0.033]	0.035*** (0.013) [0.009]
FAge	0.033*** (0.005) [0.000]	0.031*** (0.005) [0.000]	0.032*** (0.007) [0.000]	0.030*** (0.007) [0.000]
PrivDep	0.001 (0.002) [0.552]	0.001 (0.002) [0.401]	0.008*** (0.003) [0.004]	0.007** (0.003) [0.015]
SOEind	-0.006*** (0.001) [0.000]	0.007 (0.019) [0.726]	-0.007*** (0.002) [0.000]	-0.015 (0.030) [0.626]
Size	0.001*** (0.000) [0.000]	0.001*** (0.000) [0.000]	0.001*** (0.000) [0.000]	0.001*** (0.000) [0.000]
(PC)(SOEind)	0.003*** (0.002) [0.032]	0.002 (0.002) [0.157]	0.005** (0.002) [0.032]	0.005*** (0.002) [0.047]
(PC)(Size)	-0.001*** (0.000) [0.000]	-0.001*** (0.000) [0.000]	-0.001*** (0.000) [0.001]	-0.001*** (0.000) [0.004]
Ind	No	Not reported	No	Not reported
_cons	-1.006*** (0.190) [0.000]	-2.308 (1.840) [0.210]	-0.498* (0.284) [0.079]	0.310 (2.963) [0.917]
Pseudo R2	0.1146	0.1389	0.0958	0.1030
Number of obs	3589	3589	1657	1651

Note: Figures in () are standard errors. Figures in [] are probability values associated with the obtained T-ratios. *, **, *** indicate statistical significance at 10%, 5%, and 1% levels respectively.

Table 5. Empirical results: Degree of reliance on commercial bank loans

<i>Dependent variable</i>	BL/TL		BL/TL	
PC	0.884 (2.787) [0.751]	-0.256 (2.874) [0.929]	-2.657 (2.287) [0.245]	-2.946 (2.210) [0.183]
FAge	0.218 (0.218) [0.317]	0.138 (0.215) [0.521]	-0.056 (0.202) [0.781]	-0.073 (0.193) [0.707]
PrivDep	0.181*** (0.055) [0.001]	0.173*** (0.056) [0.002]	0.133** (0.063) [0.034]	0.126** (0.063) [0.046]
SOEind	-0.021 (0.033) [0.515]	0.579 (0.627) [0.356]	0.013 (0.030) [0.666]	0.703 (0.655) [0.283]
Size	0.000 (0.000) [0.624]	0.000 (0.000) [0.771]	0.000 (0.000) [0.748]	0.000 (0.000) [0.711]
Ind _cons	No 80.002*** (8.902) [0.000]	Yes (Not reported) 27.053 (61.912) [0.662]	No 92.783*** (6.806) [0.000]	Yes(Not reported) 28.178 (63.053) [0.655]
	Access1		Access2	
PC	0.530*** (0.051) [0.000]	0.509*** (0.052) [0.000]	0.388*** (0.069) [0.000]	0.367*** (0.071) [0.000]
Age	0.001 (0.003) [0.835]	-0.001 (0.003) [0.707]	-0.002 (0.004) [0.698]	-0.002 (0.004) [0.630]
Gender	0.281*** (0.071) [0.000]	0.238*** (0.073) [0.001]	0.084 (0.102) [0.414]	0.086 (0.104) [0.406]
Edu	0.008 (0.010) [0.430]	0.018** (0.010) [0.075]	0.031** (0.013) [0.017]	0.039*** (0.013) [0.004]
FAge	0.035*** (0.005) [0.000]	0.033*** (0.005) [0.000]	0.034*** (0.007) [0.000]	0.032*** (0.007) [0.000]
PrivDep	0.003 (0.002) [0.131]	0.003* (0.002) [0.087]	0.008*** (0.003) [0.003]	0.007** (0.003) [0.010]
SOEind	-0.005*** (0.001) [0.000]	-0.002 (0.020) [0.931]	-0.004*** (0.001) [0.000]	-0.019 (0.030) [0.528]
Size	0.000*** (0.000) [0.000]	0.000*** (0.000) [0.000]	0.000*** (0.000) [0.000]	0.000*** (0.000) [0.000]
Ind _cons	No -1.29 (0.200) [0.000]	Yes (Not reported) -1.73 (1.904) [0.363]	No -0.617 (0.279) [0.027]	Yes (Not reported) 0.721 (2.889) [0.803]
Mills Lambda	2.579 (6.013) [0.668]	-0.285 (6.626) [0.966]	-10.274 (7.325) [0.161]	-12.127* (7.256) [0.095]
Wald chi2	13.78	32.37	10.35	29.37
Number of obs	3300	3300	1657	1657
Censored obs	2232	2232	589	589
Uncensored obs	1068	1068	1068	1068

Note: Figures in () are standard errors. Figures in [] are probability values associated with the obtained T-ratios. *, **, *** indicate statistical significance at 10%, 5%, and 1% levels respectively.

Table 6. Empirical results: Political connection as a signal of credit-worthiness

<i>Dependent variable</i>	Profit	
PC	5.971* (3.268) [0.068]	5.432* (3.292) [0.099]
Age	-0.415*** (0.115) [0.000]	-0.402*** (0.115) [0.000]
Gender	-1.963 (2.578) [0.446]	-2.087 (2.602) [0.423]
Edu	-0.443 (0.376) [0.238]	-0.461 (0.380) [0.226]
FAge	-0.100 (0.199) [0.614]	-0.111 (0.201) [0.580]
PrivDep	0.079 (0.088) [0.366]	0.069 (0.089) [0.438]
SOEind	0.027 (0.032) [0.402]	-0.008 (0.272) [0.976]
Size	0.000 (0.001) [0.772]	0.000 (0.001) [0.753]
(PC)(PrivDep)	-0.295** (0.137) [0.031]	-0.285** (0.137) [0.038]
Ind	No	Yes (Not reported)
_cons	34.659*** (7.704) [0.000]	32.148*** (12.287) [0.009]
R-squared	0.0045	0.0046
Number of obs	3501	3501

Note: Figures in () are standard errors. Figures in [] are probability values associated with the obtained T-ratios. *, **, *** indicate statistical significance at 10%, 5%, and 1% levels respectively.