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Property rights protection and access to bank loans

*Evidence from private enterprises in China**

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Abstract

Poor protection of private property has limited the access to bank loans by private enterprises in developing and transition economies. Under those circumstances, private entrepreneurs have resorted to various ways of enhancing the *de facto* protection of private property. Using a dataset of 3,073 private enterprises in China, this paper empirically investigates the impact of political participation and philanthropic activities – informal substitutes for the lack of formal protection of private property – on the access to bank loans.

JEL classifications: D23, O16 and P23.

Keywords: Access to bank loans, private enterprises, property rights protection, political participation, philanthropic activities.

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1. Introduction

Academic research and policy experimentation over the past 25 years have led to an increasing consensus on the importance of private sector development in developing countries (Perotti, 2004). Private entrepreneurs have played a central role in the transition of formerly planned economies to market economies (McMillan and Woodruff, 2002). Both the International Monetary Fund and the World Bank have made their assistance to the developing and transitional economies conditional on the privatization of the state sector.

Despite its importance, however, private sector development has been hampered by limited access to external finance.¹ In general, private firms first use internal capital (such as retained profits) for development because this does not involve the information asymmetry problem associated with external finance. But, as internal capital is often limited, especially for entrepreneurial firms, external finance provides a much-needed additional source of capital. More importantly, external finance facilitates efficient allocation of capital (Levine, 1997).² External finance is crucial to the development of private firms that are short of internal capital but have good investment prospects, and it also increases and illuminates the opportunity cost of misallocation of capital for private firms that are rich in internal capital but have poor investment prospects.

Access to bank loans by private enterprises in developing and transitional economies has been plagued not just by the standard information asymmetry problem but, more crucially, by the poor protection of private property. A common feature of developing countries is the lack of formal protection of private property, which could well be the reason for the underdevelopment of those countries.³ In the transition economies, private sector development was not even permitted until some 25 years ago, and legal protection of private property has yet to stand the test of time. Private property, when poorly protected, is subject to expropriation by various parties in the society, and access to bank loans by private enterprises is adversely affected. Furthermore, private enterprises also face discrimination. This is because in many developing and transition economies the public sector remains dominant (Todaro and Smith, 2003). Mindful of its inefficiency vis-à-vis the private sector, the public sector may lobby the government to enact discriminatory policies, in lending for example, against the private enterprises (Johnson, McMillan and Woodruff, 2002).

¹ In most developing and transition economies financial markets are rudimentary and external finance is often restricted to bank loans.

² See Johnson, McMillan and Woodruff (2002), and Cull and Xu (2005) for the importance of external finance in transition economies.

³ There is a large literature on the importance of property rights protection for economic growth (Acemoglu, Johnson and Robinson, 2001; Claessens and Laeven, 2003; Knack and Keefer, 1995; Mauro, 1995; Svensson, 1998).

A case in point is China. Before China initiated economic reform in 1978, its economy was virtually all state owned. Unlike some formerly planned economies in Eastern Europe and the former Soviet Union that had mass privatization of state-owned enterprises, China has taken a gradual approach to reforming its state-owned enterprises⁴ (Bai *et al.*, 2000; Bai, Lu and Tao, 2006). By 2000, after 22 years of economic reform, China still had a sizeable public sector. Throughout China's reform process, there has been favouritism toward the state sector and persistent ideological biases against the private sector. In fact, protection of private property was not formally written into China's constitution until March 2004. In the absence of formal protection of private property, private entrepreneurs face risks of expropriation as well as discrimination (see, for example, Bai *et al.*, 2004; Brandt and Li, 2003; Wei and Wang, 1997). Consequently, private enterprises have had difficulty in accessing external finance. The percentage of loans made by state-owned financial institutions to private enterprises was almost zero (0.09 percent) in 1990 and remained low (0.59 percent) in 2001 (China's statistical yearbook, various years). The percentage of loans made by all financial institutions to private enterprises was not much better, moving from 0.23 percent in 1990 to 0.77 percent in 2001; this was because of the dominance of state-owned financial institutions and the politicization of the non-state-owned financial institutions.

What is interesting and puzzling is that, despite the poor formal protection of private property, China's private sector has grown spectacularly in the last 28 years; its share of industrial output leaping from almost zero in 1978 to 14.75 percent in 2003.

Anecdotal evidence suggests that China's private entrepreneurs have found various ways of enhancing the *de facto* protection of private property – what McMillan and Woodruff (2002) called informal substitutes for the lack of market-supporting institutions. In particular, private entrepreneurs with higher social status seem to enjoy better protection of their private property, and private entrepreneurs can improve their social status through political participation and philanthropic activities. The focus of this paper is to investigate, using a dataset of 3,073 private enterprises, how political participation and philanthropic activities, which enhance the *de facto* protection of private properties, alleviate the access to bank loans.

The rest of the paper is organized as follows. In Section 2, we describe our dataset, and construct the variable to measure access to bank loans by private enterprises. In Section 3, we develop the main hypothesis about how political participation and philanthropic activities – informal substitutes for the lack of formal protection of private property – may improve access to bank loans. The impacts of

⁴ The number of state-owned enterprises declined from 1.547 million in 1992 to 1.17 million in 2002 at an annual rate of 2.73 percent.

formal protection of private property and the information asymmetry between lenders and borrowers are controlled for. In Section 4, we present the main results of the empirical analysis. Section 5 draws some conclusions.

2. Access to bank loans by China's private enterprises

Our data come from a survey of private enterprises in China conducted in 2000 jointly by the United Front Work Department of the Central Committee of the Communist Party of China, the All China Industry and Commerce Federation and the China Society of Private Economy at the Chinese Academy of Social Sciences. The sampling method of the survey was multistage stratified random sampling, with the aim of achieving a balanced representation across all regions and industries. First, the total number of private enterprises to be surveyed was decided. Second, for each of the 31 regions in China, six cities/counties were selected; these included the capital city, one district-level city, one county-level city, and three counties. Third, the number of private enterprises to be surveyed in each region was the product of the region's number of private enterprises as a percentage of the national total and the total number of private enterprises in the survey. The same method was used to decide the number of sample firms in every city/county, and economic sector. Finally, after the determination of the number of private enterprises in every subsample, private enterprises were sampled randomly. The survey covered 3,073 private enterprises (about 0.2 percent of the total private enterprises in China at the end of 1999) with representation in all 31 regions and all economic sectors (excluding the sector of government, parties and social organizations).

The survey questions were answered by the owners of the private enterprises. They covered personal information about the entrepreneurs and information about the private enterprises. Of particular interest to this study is that private entrepreneurs were asked to indicate the degree of difficulty in obtaining bank loans (denoted by *Difficulty in access to bank loan*) using a scale between 1 and 5, with 1 being the easiest access and 5 the most difficult. In total, 2,854 out of 3,073 entrepreneurs answered this question, and the percentages of entrepreneurs choosing 1, 2, 3, 4 and 5 are 2.59, 12.02, 22.07, 32.13 and 31.19 percent, respectively. It is clear that access to bank loans is difficult for most private enterprises in China. In what follows, we shall use this assessment of difficulty (*Difficulty in access to bank loan*) as the dependent variable in a regression analysis about the determinants of access to bank loans.⁵

⁵ Beck *et al.* (2006) also use subjective evaluations on the degree of difficulty for the access to bank loans.

3. Determinants for the access to bank loans

3.1 *Political participation and philanthropic activities*

Throughout the economic reform in the past 28 years, the Chinese government has refrained from privatizing its inefficient state-owned enterprises on a massive scale. One rationale for this gradual reform approach is that maintaining inefficient state-owned enterprises is a second-best way of providing social stability, which is beneficial to all firms operating in the national economy (Bai *et al.*, 2000; Bai, Lu and Tao, 2006). Along with the gradual reform approach, however, there has been favouritism toward the state sector and persistent ideological biases against the private sector. It was only in the 1988 amendment to the Constitution of the People's Republic of China (approved by the First Plenary of the Seventh People's Congress on 12 April 1988) that private sector development was permitted but considered to be supplementary to the working of the socialist economy. The role of the private sector was then elevated to being important to the socialist market economy in the 1999 amendment to the Constitution (approved by the Second Plenary of the Ninth People's Congress on 15 March 1999). Finally, in the 2004 amendment to the Constitution (approved by the Second Plenary of the Tenth People's Congress on 14 March 2004), private sector development was encouraged, and formal protection of private property was enacted.

Protection of private property depends on both good laws and strong enforcement.⁶ In the case of China, although the constitutional amendment protecting private property was enacted in 2004, its enforcement varies from province to province (Cull and Xu, 2005). In the absence of formal protection of private property, there should be risks of expropriation and discrimination, making it difficult for private entrepreneurs to secure bank loans. Although the ultimate cause for the difficulty in access to bank loans is the lack of formal protection of private property, entrepreneurs can alleviate the problem by enhancing the *de facto* protection of their property. As pointed out by McMillan and Woodruff (2002), in transition economies, laws are often non-existent or not enforceable, and entrepreneurs cannot rely on the legal system to secure protection of private properties. Instead, they resort to informal substitutes for the missing market-supporting institutions.

Causal observations in China suggest that entrepreneurs with higher social status enjoy better *de facto* protection of their private properties. Presumably, expropriation of and discrimination against private enterprises would cause much more bad publicity and increase costs for the instigators in cases where the owners of the private enterprises have higher social status. It is also possible that entrepreneurs

⁶ La Porta *et al.* (1998) show that strong enforcement is not a substitute for poor laws on the books, while Pistor, Raiser and Gelfer (2000) find the reverse is also true: good laws cannot substitute for weak enforcement.

with higher social status have more opportunities to interact with government officials, directly and indirectly influencing the implementation of government policies with respect to the protection of private property.

Private entrepreneurs can improve their social status through political participation and philanthropic activities. We first focus on the effect of private entrepreneurs' political participation on their access to bank loans.⁷ Here, political participation includes membership of the Chinese People's Congress (CPC), the highest organ of state power in China, or the Chinese People's Political Consultative Conference (CPPCC), the advisory body to the Chinese People's Congress and the government. Two dummy variables are thus constructed based on entrepreneurs' personal information. One is *CPC member*, which takes the value of 1 if an entrepreneur is a member of the People's Congress and 0 otherwise, and the other dummy variable is *CPPCC member*, which takes the value of 1 if an entrepreneur is a member of the Chinese People's Political Consultative Conference and 0 otherwise. We also focus on the effect of private entrepreneurs' philanthropic activities, such as donating money to social welfare programmes, on their access to bank loans. A variable, denoted by *Donation*, is constructed, which is the logarithm of the amount of donations the enterprise has made throughout its history.

Through political participation and philanthropic activities, an entrepreneur increases his social status, and enjoys better *de facto* protection of his private property, which in turn leads to easier access to bank loans. Thus, we have our main hypothesis: *Private enterprises whose owners have more political participation or which conduct more philanthropic activities face less difficulty in getting access to bank loans.*

There is an emerging literature regarding the impact of political connections on firm performance (Faccio, 2006; Faccio, Masulis and McConnell, 2006; Fisman, 2001; Johnson and Mitton, 2003; Khwaja and Mian, 2005). A general finding of this literature is that politically connected firms enjoy better yet undeserved treatments from governments or financial institutions than those without political connections. In the case of China, however, private enterprises are in general discriminated against, and we expect that those private enterprises whose owners are more politically active have better and more justifiable access to bank loans. Regarding the impact of firms' philanthropic activities on their access to bank loans, the theoretical analysis of Shleifer and Vishny (1994) suggests possible backdoor deals between politicians and firms: firms donate money to projects favoured by politicians in return for easy access to bank loans. Our hypothesis posits that disadvantaged private entrepreneurs in China donate money to achieve higher social status and secure better *de facto* protection of their private property, thereby having better and more justifiable access to bank loans.

⁷ Using Chinese data, Li *et al.* (2005) examine how entrepreneurs' political participation may affect their enterprises' financial performance.

3.2 Protection of private property

There is a large literature regarding the impact of property rights protection on access to external finance (see, for example, Cull and Xu, 2005; Johnson, McMillan and Woodruff, 2002; La Porta *et al.*, 1998). Although the main hypothesis of this study is about the impact of political participation and philanthropic activities on access to bank loans, it is important to control for the effects of property rights protection.

Private property, when poorly protected, is subject to expropriation by various parties in the society and particularly by government officials (Bai *et al.*, 2004). In China, local government officials may impose informal levies on private enterprises to supplement their fiscal revenues, and may even extort bribes for personal gains.

In general, when private enterprises face higher risks of expropriation, banks are less willing to lend them money, thereby making their access to bank loans more difficult (the supply-side effect).⁸ The demand-side story is more complicated. On the one hand, private enterprises with higher risks of expropriation have less incentive for investment and hence lower demand for bank loans. On the other hand, as Johnson, McMillan and Woodruff (2002), and Cull and Xu (2005) argue, in the presence of expropriation risks, private enterprises prefer external finance to internal finance for further development, although the incentive for further development itself is weakened. Overall, the supply-side effect seems to be the dominant effect for private enterprises in China,⁹ and we thus have the following control for the empirical study: *Control 1: It is more difficult for private enterprises to get bank loans if they face greater risk of expropriation (for instance, they may have to pay higher informal levies and/or face more serious corruption problems).*

Two variables are constructed to capture the risks of expropriation faced by private enterprises. The first one is a dummy variable, denoted by *Informal levy*, which takes a value of 1 if the answer to the survey question about whether a private enterprise has paid any informal levies is 'yes' and 0 otherwise.¹⁰ The second variable is also a dummy variable, denoted by *Corruption*, which takes the value of 1 if the answer to the survey question about whether it is necessary to

⁸ Although most China's banks are state-owned, they have undergone restructuring including the use of incentive contracts for managers, and have become increasingly profit-oriented (Cull and Xu, 2003).

⁹ The dependent variable for this study is a subjective score given by private entrepreneurs on the degree of difficulty for the access to bank loans. It reflects the entrepreneurs' ease of access to bank loans, conditional on their demand for bank loans. In addition, our data enable us to further construct a sub-sample in which only those firms who wish to borrow from banks are included, and our main results still hold in this sub-sample. See Section 4 for details.

¹⁰ Although both informal levies and donations are cash flows from enterprises without direct paybacks, they are different in nature. In general, private enterprises involuntarily pay out informal levies, but are voluntary in making donations.

apply stricter anti-corruption policies than the existing ones is 'yes' and 0 otherwise.

In addition to the risks of expropriation when private property is not securely protected, private enterprises may also encounter all kinds of discrimination as compared with their state-owned counterparts. As argued by McMillan and Woodruff (2002), an inefficient yet dominant state sector has both incentives and means to lobby for discriminatory policies against the private sector. The scope of discrimination can be very broad, covering almost all aspects of business operation, such as restrictions on market entry and exit, limited access to infrastructure services and lack of detailed information on government policies. Thus we have the following control for the empirical study: *Control 2: It is more difficult for private enterprises to get bank loans if they encounter more or severer discriminatory restrictions in business operations.*

An index (denoted by *Discrimination*) is constructed to reflect the risk of discrimination faced by private enterprises. The survey had 13 questions regarding whether private enterprises are treated similarly to their state-owned or foreign-invested counterparts in various aspects of business operation. One of the questions is about external borrowing, and it is excluded from our construction of the index because the degree of difficulty in access to bank loan is the dependent variable in our study. There are three possible answers to each question: 'the same', 'basically the same' and 'differently'. Generally, when a private enterprise is said to be treated differently from state-owned or foreign-invested enterprises, it means being treated unfairly or discriminated against. The answer to each of the remaining 12 questions is then given a value of 1 if it is 'differently' and 0 otherwise.¹¹ The index for the risk of discrimination is the sum of the values corresponding to the 12 survey questions.

We control for the risks of expropriation (Control 1) and discrimination (Control 2) because protection of private properties is an important determinant of the access to bank loans. Given that banks in China are mostly state-owned, however, one may argue that ease of access to bank loans, degree of discrimination, and risk of expropriation are various measures of the government's attitude toward the private sector. When the government is positive toward the private sector, then there is less discrimination, lower risk of expropriation and easier access to bank loans. Thus, in order to focus on the impacts of political participation and philanthropic activities, we will also carry out regressions without Control 1 or 2.

¹¹ In the survey, questions about discrimination were asked and answered using both state-owned and foreign-invested enterprises as references. Thus, two indices could be constructed. However, the correlation between these two indices is 0.72, which shows that private enterprises in China are discriminated against as compared with both state-owned and foreign-invested enterprises. In our analysis, for any particular aspect of business operation, a private enterprise is said to be discriminated against if the entrepreneur of this enterprise replied affirmatively to the survey question with regard to either state-owned or foreign-invested enterprises.

3.3 Information asymmetry between lenders and borrowers

It is well known that access to bank loans is complicated by the problem of information asymmetry between lenders and borrowers. The information asymmetry problem, which is generic to financial markets in both developed and developing countries, is especially severe for private enterprises in China. It was only 25 years ago that China's private sector started to emerge with newly established and privatized state-owned enterprises. Thus, most of China's private enterprises are smaller and younger than their state-owned counterparts and are at higher risk in the eyes of lenders. In addition, with weak protection of private property, private enterprises in China tend to disguise their actual performance, making it difficult for lenders to screen loan applications (Cai, Liu and Xiao, 2004). Thus, it is desirable to control for the information asymmetry problem in our analysis on the access to bank loans.

Three methods have been identified for solving the information asymmetry problem. The first method is that of appraisal by means of an objective evaluation by experts. One of the most commonly used appraisal schemes in the financial markets is the rating of firms by independent credit rating agencies. If the rating is objective then it should help firms to get access to bank loans. There could be some self-selection bias, however, because only those private enterprises that have a chance of getting bank loans may choose to have independent credit rating. To control for the self-selection bias, we can focus on a subsample consisting only of private enterprises with credit ratings, and examine whether the level of rating has any effect on the access to bank loans. To summarize: *Control 3 (appraisal): (i) Access to bank loans is easier for private enterprises that are rated by independent credit rating agencies. (ii) Among private enterprises that are rated by independent credit rating agencies, those with higher credit ratings are expected to have easier access to bank loans.*

Two independent variables are thus constructed. The first variable is a dummy variable (denoted by *Independent credit rating*) regarding whether the enterprise has independent credit rating, and it takes the value of 1 if the answer is 'yes' and 0 otherwise. The second variable, denoted by *High on credit rating*, is a dummy variable, restricted only to those firms that have independent credit rating, and it takes the value of 1 if the credit rating is 'A' and 0 otherwise.

The second method for dealing with information asymmetry is signalling, meaning those actions taken by more informed parties to credibly demonstrate the superior information they possess. In the case of securing bank loans, a private enterprise can signal its capability of carrying out projects successfully and its willingness to repay loans by adopting a better financial and management control system. Other characteristics of the enterprise also contain useful signals about the enterprise's ability and willingness to repay loans: for example, the size of its operation, the years of managerial experience of its owner, the capital-labour ratio (a proxy for collateral), and the return on assets. Although these characteristics are not necessarily chosen by the enterprise for the purpose of sending signals about

its private information, we still classify them as signals to facilitate our exposition. To summarize, we have: *Control 4 (signalling): (i) Access to bank loans is easier for private enterprises that adopt higher-quality financial and management control systems. (ii) Access to bank loans is easier for private enterprises that have a larger scale of operation, or are managed by entrepreneurs with longer managerial experience, or have higher capital-labour ratios, or enjoy higher return on assets.*

Five independent variables are constructed accordingly. The first variable relates to the enterprise's financial and management control system. The survey asked whether the enterprise has a formal financial control system or a corporate charter. Because answers to these two questions are highly correlated, we combine them into one dummy variable (*Internal control*), which takes the value of 1 if the answer to either question is 'yes' and 0 otherwise. Second, the logarithm of employment of a private enterprise, denoted by *Size of establishment*, is constructed as a proxy for the scale of operation. The third variable, defined as the logarithm of entrepreneur's management experience in years and denoted by *Managerial Experience*, indicates the quality of management. The fourth variable is the enterprise's capital-labour ratio (*Capital-labour ratio*), which indicates the amount of physical investment the firm has made and indirectly reflects the amount of collateral it can pledge. The last variable is the return on assets, defined as the net profit to total assets ratio and denoted by *ROA*.

It should be pointed out that the main hypothesis may have some endogeneity problems. For example, successful business operation in the past can create the opportunity of political participation by private entrepreneurs and increase the capacity for philanthropic activities of private enterprises. At the same time, successful business operation in the past could also make it easy for private enterprises to convince bankers and secure bank loans. *Control 4 (ii)* concerns the past performance of private enterprises (such as the size of operation, years of managerial experience, and return on assets), and to some extent it mitigates the endogeneity problem in the main hypothesis.

The third method of resolving information asymmetry is screening, meaning those actions taken by the less informed parties to infer what information is held by the more informed parties. Many screening devices have been developed and adopted by financial institutions around the world. However, in the case of China, the issue lies not in the availability of screening devices but in the incentives for banks to use available screening devices. Compared with dominant state-owned banks, non-state-owned financial institutions, which have emerged since the economic reform in 1978, are more profit-oriented and therefore have a stronger incentive to screen private enterprises regarding their financing needs. The presence of non-state-owned financial institutions varies from region to region; and within each region, they are mostly located in small cities and counties. Therefore, we have: *Control 5 (screening): Access to bank loans is easier for private enterprises that are located in smaller cities or counties and for those located in regions with higher percentages of non-state-owned financial institutions.*

Table 1. Summary statistics

Variables	N	Min	Max	Mean	SD
Difficulty in access to bank loan	2,854	1	5	3.77	1.09
CPC member	3,070	0	1	0.16	0.37
CPPCC member	3,070	0	1	0.40	0.49
Donation	2,813	0	16.12	9.48	3.45
Informal levy	3,070	0	1	0.39	0.49
Corruption	3,063	0	1	0.56	0.49
Discrimination	1,483	0	12	5.07	3.94
Independent credit rating	2,647	0	1	0.24	0.43
High on credit rating	635	0	1	0.95	0.20
Internal control	3,070	0	1	0.85	0.35
Size of establishment	2,857	0	9.90	4.07	1.34
Managerial experience	3,030	0	3.82	2.25	0.69
Capital-labour ratio	2,896	0.77	1,290.32	8.14	32.80
ROA	1,950	0.00065	0.84	0.21	0.22
Percentage of loans by non-state banks	3,070	0.046	0.32	0.21	0.06
Located in small city	3,070	0	1	0.58	0.49

Two independent variables are constructed accordingly. The first one is the percentage of loans issued by non-state-owned banks in a region in 1999 (*Percentage of loans by non-state banks*).¹² The second variable, denoted by *Located in small city*, is a dummy variable regarding whether a private enterprise is located in a small city or county as opposed to a large or medium city. It takes the value of 1 if the answer is affirmative, and 0 otherwise.

Banks in smaller cities/counties or regions with higher percentages of non-state-owned financial institutions may discriminate less against private enterprises, which makes access to bank loans easier for those private enterprises. However, because we control for policy discrimination faced by private enterprises (Control 2), the endogeneity problem in Control 5 can be mitigated to some extent.

Summary statistics of the dependent variable and the independent variables used in this study are listed in Table 1. Table 2 shows the correlation between these variables.

¹² State-owned banks include People's Bank of China, State Development Bank of China, Agricultural Development Bank of China, Export-Import Bank of China, Industrial and Commercial Bank of China, Bank of China, China Construction Bank, Agricultural Bank of China, Bank of Communications, CITIC Industrial Bank, and Post Savings of China. All others are non-state-owned banks. *Source: China Finance Statistics, 1997-99.*

Table 2. Correlation between variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Difficulty in access to bank loan	1																
Informal levy	2	0.081 <i>0.000</i>	1														
Corruption	3	0.063 <i>0.001</i>	0.164 <i>0.000</i>	1													
Discrimination	4	0.114 <i>0.000</i>	0.258 <i>0.000</i>	0.041 <i>0.114</i>	1												
CPC member	5	-0.099 <i>0.000</i>	0.068 <i>0.000</i>	0.063 <i>0.000</i>	0.017 <i>0.500</i>	1											
CPPCC member	6	-0.052 <i>0.005</i>	0.049 <i>0.005</i>	0.073 <i>0.000</i>	-0.008 <i>0.749</i>	0.016 <i>0.367</i>	1										
Donation	7	-0.135 <i>0.000</i>	0.055 <i>0.003</i>	0.108 <i>0.000</i>	-0.023 <i>0.383</i>	0.168 <i>0.000</i>	0.272 <i>0.000</i>	1									
Independent credit rating	8	-0.205 <i>0.000</i>	0.001 <i>0.979</i>	-0.006 <i>0.733</i>	-0.063 <i>0.020</i>	0.161 <i>0.000</i>	0.113 <i>0.000</i>	0.168 <i>0.000</i>	1								
High on credit rating	9	-0.105 <i>0.000</i>	-0.006 <i>0.882</i>	0.002 <i>0.968</i>	-0.022 <i>0.674</i>	0.069 <i>0.079</i>	0.085 <i>0.000</i>	0.088 <i>0.032</i>	-	1							
ROA	10	0.005 <i>0.800</i>	-0.015 <i>0.502</i>	-0.046 <i>0.042</i>	-0.051 <i>0.085</i>	-0.001 <i>0.938</i>	0.008 <i>0.713</i>	0.023 <i>0.313</i>	0.027 <i>0.250</i>	0.008 <i>0.847</i>	1						
Size of establishment	11	-0.185 <i>0.000</i>	0.096 <i>0.000</i>	0.039 <i>0.034</i>	-0.003 <i>0.900</i>	0.264 <i>0.000</i>	0.242 <i>0.000</i>	0.405 <i>0.000</i>	0.355 <i>0.000</i>	0.126 <i>0.001</i>	0.050 <i>0.006</i>	1					
Managerial experience	12	-0.077 <i>0.000</i>	0.009 <i>0.624</i>	0.087 <i>0.000</i>	-0.005 <i>0.837</i>	0.108 <i>0.000</i>	0.194 <i>0.000</i>	0.229 <i>0.000</i>	0.112 <i>0.000</i>	0.078 <i>0.047</i>	-0.015 <i>0.494</i>	0.149 <i>0.000</i>	1				
Capital labour ratio	13	-0.019 <i>0.291</i>	0.008 <i>0.677</i>	0.003 <i>0.060</i>	-0.031 <i>0.007</i>	0.019 <i>0.271</i>	0.052 <i>0.003</i>	0.079 <i>0.000</i>	0.044 <i>0.022</i>	0.039 <i>0.326</i>	-0.023 <i>0.307</i>	-0.017 <i>0.363</i>	0.017 <i>0.350</i>	1			
Internal control	14	-0.068 <i>0.000</i>	0.066 <i>0.000</i>	0.036 <i>0.044</i>	-0.011 <i>0.652</i>	0.070 <i>0.000</i>	0.122 <i>0.000</i>	0.142 <i>0.000</i>	0.146 <i>0.000</i>	-0.048 <i>0.221</i>	0.029 <i>0.102</i>	0.272 <i>0.000</i>	0.011 <i>0.547</i>	0.048 <i>0.007</i>	1		
Percentage of loans by non-state banks	15	-0.072 <i>0.000</i>	-0.052 <i>0.004</i>	-0.080 <i>0.000</i>	-0.138 <i>0.000</i>	-0.028 <i>0.120</i>	-0.073 <i>0.000</i>	-0.003 <i>0.894</i>	-0.001 <i>0.997</i>	-0.020 <i>0.607</i>	-0.050 <i>0.024</i>	0.051 <i>0.006</i>	0.019 <i>0.281</i>	-0.011 <i>0.560</i>	0.029 <i>0.102</i>	1	
Located in small city	16	-0.076 <i>0.000</i>	0.013 <i>0.462</i>	0.002 <i>0.917</i>	-0.021 <i>0.415</i>	0.062 <i>0.000</i>	-0.042 <i>0.019</i>	-0.073 <i>0.000</i>	0.039 <i>0.040</i>	-0.025 <i>0.523</i>	-0.016 <i>0.470</i>	-0.036 <i>0.049</i>	0.068 <i>0.000</i>	-0.099 <i>0.000</i>	-0.088 <i>0.000</i>	0.013 <i>0.454</i>	1

Table 3. Regressions about difficulty in access to bank loans (ordered logistic regression)

Independent variables	(1)	(2)	(3)	(4)
CPC member	-0.39*** (0.10)	-0.441*** (0.14)	-0.13** (0.07)	-0.222* (0.13)
CPPCC member	-0.05 (0.07)	0.044 (0.11)	0.02 (0.10)	0.165 (0.13)
Donation	-0.06*** (0.01)	-0.053*** (0.02)	-0.028* (0.016)	-0.025 (0.02)
Informal levy		0.415*** (0.11)		0.444*** (0.13)
Corruption		0.353*** (0.11)		0.265** (0.13)
Discrimination		0.031** (0.01)		0.035** (0.02)
Independent credit rating			-0.579*** (0.09)	-0.639*** (0.14)
Internal control			-0.07 (0.16)	-0.102 (0.20)
Size of establishment			-0.16*** (0.05)	-0.144** (0.06)
Managerial experience			0.03 (0.07)	0.014 (0.09)
Capital-labour ratio			-0.008*** (0.002)	-0.021*** (0.01)
ROA			-0.006 (0.02)	-0.265 (0.26)
Percentage of loans by non-state banks			-0.023*** (0.01)	-0.039*** (0.01)
Located in small city			-0.43*** (0.10)	-0.345** (0.14)
Industry and region dummies	Yes	Yes	Yes	Yes
<i>N</i>	2,413	1,296	1,473	914
χ^2	197.32	63.78	121.1	118.46
Probability	<0.0001	<0.0001	<0.0001	<0.0001

Note: ***, **, *, + indicate significant at 1 percent, 5 percent, 10 percent and 15 percent levels, respectively. Standard errors are in parentheses.

4. The main results

Because the dependent variable for the access to bank loans takes the values 1, 2, 3, 4 and 5, the ordered logistic regression method is used in the main regression analysis (Greene, 2003). The ordinary least square method is also used, mainly for showing the relative quantitative importance of the various determinants of the access to bank loans.

We first focus on the main hypothesis regarding the impacts of political participation and philanthropic activities on the access to bank loans. As shown in column 1 of Table 3, the coefficient of *CPC member* is negative and statistically significant at the 1 percent level, while that for *CPPCC member* is negative as predicted, but is statistically insignificant. The results show that access to bank loans is significantly easier for entrepreneurs who are members of the Chinese People's Congress, but membership of the Chinese People's Political Consultative Conference has a limited

effect. The difference between the explanatory power of *CPC member* and that of *CPPCC member* can be understood in light of the political structure in China. The People's Congress is the highest lawmaking body in China. During the reform era, its authority has been restored, and hence its superior importance. The CPPCC in China is a collection of experts in support of the policies of the Chinese People's Congress and the Government. Thus, the CPPCC does not have as much political power as the CPC. The coefficient of *Donation* is negative and statistically significant at the 1 percent level, suggesting that by conducting more philanthropic activities private entrepreneurs can have easier access to bank loans. Overall, the econometric analysis as summarized in column 1 of Table 3 lends strong support to the main hypothesis regarding the informal substitutes for the lack of formal protection of private property.

Next we control for the formal protection of private property (that is, controls 1 and 2). As shown in column 2 of Table 3, our main results on political participation and philanthropic activities remain intact, while the coefficients of the variables controlling for the formal protection of private property are as predicted. The coefficients for both *Informal levy* and *Corruption* are positive and statistically significant at the 1 percent level. They imply that private enterprises paying higher informal levies face more difficulty in getting bank loans, and so do those facing more serious corruption. These results support Control 1. The coefficient of *Discrimination* is positive and significant at the 5 percent level, which means private enterprises encountering more severe policy discrimination also have more difficulty in accessing bank loans, supporting Control 2.

Third, we control for the information asymmetry problem (Controls 3–5) and test the robustness of the impacts of political participation and philanthropic activities on the access to bank loans. As shown in column 3 of Table 3, our main hypothesis remains strongly supported, and the coefficients of those variables controlling for the information asymmetry problem are as predicted. *Independent credit rating* has a negative coefficient with a 1 percent statistical significance, suggesting that independent credit rating helps private enterprises obtain bank loans and lending support to Control 3(i). *Size of establishment* and *Capital-labour ratio* both have negative coefficients with a 1 percent statistical significance. These results suggest that access to bank loans is easier for those private enterprises with a larger scale of operation or with more physical assets that can serve as collateral for bank loans, supporting part of Control 4. Both *Internal control* and *ROA* have the predicted negative coefficients although they are statistically insignificant, which suggests that both better internal control and higher return on assets have limited effects on the access to bank loans.¹³ *Managerial experience* has a positive yet

¹³ Return on assets is an informative variable in a well-developed market. However, in the case of China, where protection of private property was not even written into the constitution until March 2004, private entrepreneurs were reluctant to reveal their rates of returns to the survey teams. Thus, this variable is not expected to have significant explanatory power.

Table 4. Regressions about difficulty in access to bank loans (ordinary least square)

Independent variables	(1)	(2)	(3)	(4)
CPC member	-0.20*** (0.05)	-0.2185*** (0.08)	-0.077* (0.044)	-0.1283** (0.05)
CPPCC member	-0.054 (0.044)	0.0144 (0.06)	-0.023 (0.058)	0.0709 (0.07)
Donation	-0.031*** (0.006)	-0.0291*** (0.01)	-0.013+ (0.009)	-0.0088 (0.01)
Informal levy		0.2303*** (0.06)		0.2952*** (0.07)
Corruption		0.1536** (0.06)		0.0897** (0.04)
Discrimination		0.0100** (0.004)		0.0115** (0.005)
Independent credit rating			-0.24*** (0.066)	-0.2170*** (0.08)
Internal control			-0.095 (0.086)	-0.0732 (0.11)
Size of establishment			-0.082*** (0.026)	-0.0997*** (0.04)
Managerial experience			-0.009 (0.042)	-0.0262 (0.05)
Capital-labour ratio			-0.004*** (0.001)	-0.0084** (0.00)
ROA			-0.003 (0.012)	-0.2350 (0.18)
Percentage of loans by non-state banks			-0.004 (0.002)	0.0081 (0.02)
Located in small city			-0.24*** (0.06)	-0.2055** (0.08)
Industry and region dummies	Yes	Yes	Yes	Yes
N	2,621	1,346	1,540	936
Adjusted R ²	0.1013	0.1304	0.1499	0.1888

Note: ***, **, *, + indicate significant at 1 percent, 5 percent, 10 percent and 15 percent levels, respectively. Standard errors are in parentheses.

statistically insignificant coefficient, possibly because experience prior to the economic reform may not be meaningful and, furthermore, the managerial labour market has yet to be developed. *Percentage of loans by non-state banks* and *Located in small city* both have negative coefficients with a 1 percent statistical significance. That is, access to a bank loan is easier for private enterprises that are located in regions with higher percentages of non-state-owned-banks and for those that are located in small cities or counties. These results lend strong support to Control 5.

When both formal protection of private properties (Controls 1 and 2) and the information asymmetry problem (Controls 3–5) are controlled for, our main results still hold as shown in column 4 of Table 3 though the statistical significance decreases for some of the variables. To clarify the relative quantitative importance of the various determinants of access to bank loans, the ordinary least square method is used to repeat the analysis of Table 3 and the results are summarized in Table 4.

Table 5. Robustness checks (ordered logistic regression)

Independent variables	All hypotheses with firms that have credit rating	All hypotheses with firms that wish to borrow	All hypotheses with firms that had borrowed
CPC member	-0.48** (0.22)	-0.21** (0.10)	-0.10** (0.04)
CPPCC member	-0.35* (0.20)	-0.058 (0.12)	0.026 (0.12)
Donation	-0.053+ (0.034)	-0.029+ (0.019)	-0.027 (0.021)
Independent credit rating		-0.51*** (0.13)	-0.28*** (0.13)
High on credit rating	-0.037 (0.56)		
Internal control	-0.15** (0.53)	-0.41** (0.20)	-0.16 (0.20)
Size of establishment	-0.11 (0.089)	-0.14** (0.06)	-0.075 (0.058)
Managerial experience	-0.024 (0.15)	0.11 (0.09)	-0.031 (0.096)
Capital-labour ratio	-0.012 (0.005)	-0.008*** (0.003)	-0.0062** (0.0030)
ROA	-0.179*** (0.068)	-0.004 (0.022)	0.0017 (0.022)
Percentage of loans by non-state banks	-0.005 (0.08)	0.009 (0.039)	0.010 (0.049)
Located in small city	-0.48*** (0.23)	-0.33** (0.13)	-0.29 (0.13)
Industry and region dummies	Yes	Yes	Yes
<i>N</i>	403	1,094	1,008
χ^2	269.4	1,126.6	865.6
Probability	0.0001	0.0001	0.0001

Note: ***, **, *, + indicate significant at 1 percent, 5 percent, 10 percent and 15 percent levels, respectively. Standard errors are in parentheses.

Before concluding our analysis, we carry out three more sets of regressions, mainly in order to check the robustness of our main results. First, to control for the possible self-selection bias as a result of better-performing firms choosing to have an independent credit rating, we focus on the rating results as a more refined variable of appraisal. As shown in column 1 of Table 5, our main results on political participation and philanthropic activities still hold. Second, given that poor protection of private property may affect both the demand for and the supply of bank lending, we consider a subsample comprising only firms that wish to borrow money to focus on the supply side. As shown in column 2 of Table 5, our main results on both political participation and philanthropic activities still hold. Finally, to control better for the effect of information asymmetry on the access to bank loans, we focus on those private enterprises that had borrowed from the banks. Generally speaking, a successful borrowing history helps resolve information asymmetry in bank lending. Again, as shown in column 3 of Table 5, the main results on political participation remain valid, while some of the variables related to information asymmetry become less significant as expected.

5. Conclusion

Private sector development has been identified as a driving force in the growth of the developing and transition economies. Despite its importance, however, private sector development has been hampered by the lack of external finance – limited access to bank loans in particular – in those economies. Part of the problem arises from the severe information asymmetry between banks and private enterprises. But the key reason lies in the lack of formal protection of private property. Causal observations reveal that, under those circumstances, entrepreneurs have resorted to various ways of enhancing the *de facto* protection of their private property. One way of doing this is to improve social status, possibly through political participation and philanthropic activities. Presumably, expropriation of and discrimination against private enterprises would cause much more bad publicity, thereby increasing the costs for the instigators, if the owners of the enterprises have higher social status. It is also possible that entrepreneurs with higher social status have more opportunities to interact with government officials, directly and indirectly influencing the implementation of government policies with respect to the protection of private property. Using a dataset of 3,073 private enterprises in China, this paper empirically investigates the effects of formal and *de facto* property rights protection on the access to bank loans by private enterprises. We find that access to bank loans by private enterprises is reduced by poorer formal protection of private property (which raises the risks of expropriation and discrimination) but it is enhanced by better *de facto* protection of private property achieved through political participation and philanthropic activities. Those results are robust to various controls for the information asymmetry between banks and private enterprises. They have important policy implications for private sector development in the developing and transition economies.

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