Private Firms and Informal Lending in China:  
*Determinants for family and friends lending?*

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Abstract

China has had an unbelievable economic development over the last 25 years. Their gross domestic product (GDP) has increased by more than 9% yearly. Since the middle of the 1980’s this trend has become more and more dependent on China’s private firms. China’s private firms are much more effective than their counterpart state-owned enterprises. Despite this fact, private firms are still treated very unfairly. They get discriminated against by both the government and individuals. Among other things, this results in private firms having a difficult time finding formal capital to finance their new investments and working capital.

A major problem is that the four state-owned commercial banks own most of the assets and they favour the state-owned enterprises. This creates a crowding-out effect against the private firms and also often forces the private firms to seek finance from informal sources. What are other determinants of private firms that force them to lend money from the informal sector?

This thesis will test if any of the following determinants: political, economic, risk, relationship and size have any significant impact in the case private firms have to borrow money from family and friends. The different determinants will be represented of chosen proxies that will be tested against a dependent variable in a liner regression.

The results show that political connections and the size of the firms make a significant difference in the relationship between private firms having to borrow money from family or friends. Better political connections and larger firms reduce the lending from family and friends. The result from the paper could not establish any significant relationships between informal lending and the determinants risk, economic and relationship variables.

Keywords: China, Informal financing, family and friend lending
List of Abbreviations

BAMC       Bank assets management companies
CGF        Credit guarantee facilities
FDI        Foreign direct investments
GDP        Gross domestic product
ICS        Investment climate survey
NOBS       Number of observations
NPL        Non-performing loan
PCBC       The Peoples Bank of China
PR         Probability
SME        Small and medium enterprises
SOCB       State owned central bank
SOE        State Owned Enterprises
TVE        Township village enterprises
WTO        World Trade Organisation

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1 Introduction

Since 1978 China has introduced different reforms to promote a free market economy and the changes in the system have led to remarkable economic growth. China’s GDP grew on average more than 9% annually from 1978 - 2000\(^1\). Private firms have been the driving force of this economic growth for many years and this is because private enterprises tend to be more efficient and have the capability to create more jobs than state-owned enterprises (SOEs). When the reforms started in 1978, there were not many private firms, but by 1997 there were over 6.1 million privately owned firms. These private enterprises account for more than 77% of the industrial firms and 36% of the total industrial output\(^2\). But yet are the majority of the private firms excluded from the formal financial system. The total lending from banks to the private sector in China was less than 1% in 1999\(^3\). The private firms in general have to start with internal or informal financing.

The bank loan control issue makes it very difficult for private firms to obtain funding and results in a host of problems because access to credit is very important to all enterprises\(^4\). This phenomenon occurs since the four state-owned commercial banks are the largest credit institutions and control more than 70% of total assets available (mainly deposits and loans) and the asymmetric information problem associated with external finances. For China to continue its economic growth, it needs to continue to develop the existing private firms and create more new private enterprises. A study conducted in 1999 showed that around 80% of private firms thought the lack of access to finance were a large obstacle in the plan to develop and expand. China’s private firms have relied so far on informal financing to develop their businesses and accordingly it has played a very important role. China has a substantial informal credit sector. A survey recently conducted on 20 provinces in China showed that the size of the informal financial sector stood between 740 and 830 billion Chinese yuan\(^5\). For private firms to grow further, they need external funding. Some of the reasons for this is that it often takes credit to invest in fixed capital that requires large lump sum funds or when private firms need to adopt and install new and better technology.

\(^{4}\)This is among things that China has very high demand of working capital to support large inventories and receivables.
1.1 Purpose

Which firms get access to formal capital and who has to rely on informal capital? The purpose of this thesis is to establish and explain the key determinants of private firms that have to borrow money from family and friends. The categories that will be tested are political, economic, risk, relationship and size. Is it that firms cannot get a formal loan and do not have any other choice than to get financed through the help of family and friends? Or do private firms get discriminated by the commercials banks for the reasons that they lack the connection with the party or that the private firm does not have a close relationship with someone at the bank, which can influence the decision for approval of a bank loan? The answer is very important for both private firms and the Chinese economy.

Private firms are important for China’s economy, since Chinese growth the last two decades has been due to the rise of private enterprises. The reason for economic growth is that the amount of credit allocated towards private enterprises is strongly correlated with the economic rate of physical capital accumulation and improvement in the efficiency of capital allocation\(^6\). Secondly, it is important for the banks themselves. The banks are perhaps not aware of this pattern and if they notice these flaws in the system they can do something about it. The measures from the bank will hopefully lead to more efficient bank organization and create a better and more professional reputation. This can lead to more business opportunities for the banks and hopefully also increase their profit.

This development is very central to strengthen the financial situation in China. There will also come up with some minor effects. These include an increase in tax revenue both from banks and private companies and lower costs for the subsidies from the state to the unemployed. These effects are direct, but there are also secondary effects. For example, the crime rate is lower when people have jobs\(^7\) and this leads to less expenses for the government in many diverse fields. Additional recoil is that when people have jobs or the state has better finance they can finance education which will lead to an increase in economic growth\(^8\).

To sum up the discussion, it is very important for China and the people of China for the economy to continue to grow. One important factor that can affect this outcome is that the

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private firms get access to credit from banks instead of just get financial resources from the informal sector. This can happen if the players in the game understand what determines the decision for credit. After this banks and the private firms can adapt and adjust to the rules of the game that increase the lending.

1.2 Method and Data
The method used in the paper is quantitative. The writer uses a linear regression to test the theory. With one dependent variable: working capital financed by family and friends. This dependent variables are regressed upon a group of independent variables (political, economic, risk, relationship and size) hypothesized to have an effect on the choice. The result can establish if there are any significant correlations between the regression and the dependent variables.

The information in this report comes from articles and secondary sources. The data for the regression is obtainable by the World Bank Investment Climate Survey for China 2003. The World Bank developed the survey to investigate and develop a better understanding of the conditions in the local investment climate of China. The survey is developed and strengthened through the use of objective quantitative data\(^9\). The World Bank Investment Climate Survey for China 2003 consists of 2400 companies’ responses from 18 different cities. Literary studies have been carried out to obtain an overall understanding of the existing situation of the bank sector, the access to formal capital and the informal lending in China.

1.3 Limitations
The ICS has some limitations. When there is a risk of prevailing the identities of the enterprises in the surveys, ICS will exclude them from the test. This is not preferred in a study but as we know China is a dictatorship and this course of action is important to get participant to the survey and that they answer honestly. The measurements of ICS do not have any effect on the outcome

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\(^9\) This means that the survey doesn’t ask subjective questions to the respondent, the survey instead asks questions and collects data that later can be interpreted. For example instead of asking if there is any corruption in China, the survey asks “What is the total travel and entertainment cost spent in 2003 by the firm”. The answer to this question (the amount of money spent) gives an indication of how large the corruption is in the branch/city/country.
1.4 Earlier research

The informal lending market is often illegal and this makes it hard for researchers to investigate into the field. This has made the framework of family and friend lending very limited. To my knowledge there has been no earlier theoretical or empirical study done on this subject in China and few in the rest of the world. However, there are some studies that are related to this topic and can be applied to explain the informal lending determinant. In general, there are two major views addressing the area of informal financing and why it exists. First, informal financing is a reaction of distortion in policies. Secondly, the informal sector has comparative advantages\(^\text{10}\). One such study shows variables for informal lending at Kenyan manufacturing firms. This shows that informal lending is used for a source of a low interest rate, less formalities, and no required collateral\(^\text{11}\). This confirms from another study conducted among Chinese farmers and their need for credit. They could not lend money from formal credit sector because they could not meet the mortgage and the guarantee requirements. A second reason was lack of mutual trust between the parts\(^\text{12}\). A case study from Zimbabwe shows that manufacturing firms have problems accessing external finance because of their size, ethnic background, their owners/managers and their rate of expansion\(^\text{13}\).

Another way to find out determining factors of informal lending is to look at what variables influence banks to reject borrowers. The borrowers that do not get a formal loan have to go to the informal market. This means that the informal lender caters to the borrower that cannot get a bank loan. There are some studies on the credit constraints on U.S. households that show that variables like permanent earnings, net worth, age, race, family size, residential area, geographic regions and concentrations of credit outlets influence the outcome of the chances for credit\(^\text{14}\). Collateral is very important for the banks to judge if the borrower is creditworthy. The less the collateral, the harder it is to get access to a bank loan\(^\text{15}\). Size of the firm is often correlated with the quantity of collateral and research has shown that the larger the firm is the easier it is to get bank credit\(^\text{16}\). A last study confirms that the age and size variables are

important for obtaining bank credit, it also showed that foreign-owned firms have less financing obstacles\textsuperscript{17}.

Relations and networks are factors that affect the ability to get a loan. Firms that have social attachments are more likely to receive a bank loan and get a lower interest rate\textsuperscript{18}. The relations variable is influenced by the age aspect. Studies show that “The length of borrower – lender relationships measure by age of the oldest loan has a positive effect on the amount borrowed and negative effect on interest rates paid”\textsuperscript{19}. Small and medium sized companies have less access to finance through bank loans because of the limited information banks have about the firms. Reliable information for small and medium enterprises is most important since lack of reliable information leads to higher interest rates for the enterprises\textsuperscript{20}. Bank concentrations creates obstacles for firms to access bank loans and the better and stronger institutions the country has, the fewer obstacles are created by the concentrations of banks towards lending to the firms\textsuperscript{21}.

Another angle of the problem that has been investigated is that poorer protection of private properties in transitional economies leads to the fact that it becomes more difficult for private firms to gain access to external financing\textsuperscript{22}. This is because when private properties are poorly protected they are vulnerable and pressure results from various societal parties. It also leads to discrimination against private enterprises since the public sector is the dominant player. For example the public sector has more resources and better connections to lobby for policies that discriminate against private firms.

This section of established research sheds light on some of the angles that have been debated around informal lending and a firm’s access to credit. It is important to mention that all research in the field is not homogeneous and there are papers that do not support the claims

\textsuperscript{19} http://ideas.repec.org/p/edj/ceauch/146.html, 2006-05-03.
presented above. On the other hand, the claims above may serve as a benchmark of the majority of the established research in the world today.

1.5 Disposition
The paper is organized in the following way. Section 2 will speak about informal lending in China and its general characteristics. The chapter also includes a section that explains why informal lending exists. Chapter 3 explains the past/existing situation of private firms in China and their access to formal capital. It explains the reason why it can be hard for private firms to get financing through the bank sector and other formal financial institutions. Lastly, this chapter offers a section that describes the World Trade Organziation’s (WTOs) effect on the financial system. Chapter 4 presents five different hypotheses. It also explains how this is done and what has been motivated by earlier research. Chapter 5 contains method presentation, model building and test variables, which are introduced and motivated. This section also contains pieces on multicollinearity tests and dummy variables. Both of these factors help to simplify the analysis. Chapter 6 presents and offers an analysis of the results of the regression test. Finally chapter 7 concludes the thesis.
2 Informal lending

In many transaction economies it is difficult to obtain credit from formal institutions. The starting point for this is often the formal credit institutions way of thinking. Formal credit institutions often demand collateral from the borrower to minimize the chances of losing the capital. This has created an unorganized money market known as informal lending. The informal activities are basically a market response of the economic agents to their economic environment. At the present there isn’t a recognized definition of informal finance in academia but the Asian Development Bank defines informal finance as: “Informal finance is the finance sector that is not restricted by the government in capital, reserve, liquidity, interest rate of deposit and loan, target of compelling credit and requirement of audit report etc”23. Informal lending has no legal standing and is not subject to regulation by the government. This informal market in China is not small. In a study from 1994 they estimated that ¼ of all commercial financial transactions in China occurred beyond the state banking system. Another study pointed out that over 20% of all Chinese people have participated in informal financing24. This market is so common that even large SOEs loan money from the banks to further lend out informally to smaller enterprises25. The government tries to regulate away informal market activities by making them illegal and that is the main reason why it is very hard to gather information about these markets. But borrowing by private enterprises from individuals is accepted and they have legal protection up to an interest rate equal to four times the rate charged on a similar bank loan26. Informal lending consists of a number of different activities all in the form of unregulated transactions and traditionally the formal financial sector has served the government and the informal sectors have served the private sector. This ranges from professional and non-professional money lenders to landlords, family, and friends. But the friends and family lending is the most common form of informal lending in many developing countries27. The informal market is very important both for short-term working capital purposes and for long-term fixed capital formation. This paper looks at the informal loan market where small private firms are borrowing money from family and friends.

26 OECD (2005), OCED Economic Surveys: China, pp. 144.
Loans from family and friends often come up when small businesses cannot get consumer credit or a bank loan and when stable legal environments are missing. In this way, these relationships work as a substitute for the absent rule of law. People that have an identity with the borrower as family and friends help out with the lending of money or recommendations from a previous client. The terms of the family and friends loan often depend on the nature of the relationship. This means that terms such as repayment rate, collateral demand, and interest rate are very different for every situation. Informal loans are also generally characterized by a high interest rate. The terms do not always seem rational when the decisions are made with the heart and the brain. The friends and family lending has benefits in that it is usually quickly agreed upon and arranged with little transaction cost since there are no process to appeal for the loan, little or no paper work or travel time and the terms of the transaction are not complex. These loans often get used as consumption-smoothing purposes.

Informal lending has existed in China throughout the reform period but the informal sector has grown the most in recent years as a result of the difficulties for small, medium enterprises (SME) and farmers to get access to the credit from the formal sector. Tony Wang, president of HKE Electronic CO says “The informal lending sector is the key for companies’ survival” and Zhou Yi, founder of industrial design house S.Point Design says “It is almost impossible for a company like mine to get money from a banks because we are private.” Different parts of China have different shares of informal lending. The less developed and rural areas are over 60% of SME financing from informal sources. On the other hand the more developed coastal province areas represent only 30% of financing from the informal sector. Below is a graph of a study made on Chinese firms. It shows that larger firms get more of their capital from financial institutions while smaller firms get there capital form insider equity.

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28 The rule of law is the principle that governmental authority is legitimately exercised only in accordance with written, publicly disclosed laws adopted and enforced in accordance with established procedure.
31 OECD (2005), OCED Economic Surveys: China, pp. 144.
2.1 The reason why informal finance exists

Most researchers that explain the existence of informal lending in developing countries state that the major reason for informal financing is due to an underdeveloped financial system. Further, the heavily regulated finance system cannot meet the demand for borrowing. Put simply this means the borrowing demand is greater than the lending supply. There is more to it because in western countries the financial instruments are not underdeveloped and the formal institutions work well, yet there is still a large-scaled informal financial system. The explanation is that the informal lenders have some advantage compared to formal lenders that causes the formal lenders to not be able to compete with the informal lenders.

Informal lending has an information advantage. There is asymmetric information between the lender and borrower that can lead to moral hazard and an adverse selection problem that is decisive for approval of the loan. The adverse selection problem comes up before the loan when the people least likely to repay the loan are most urgent to get a loan. Moral hazard comes up after the loan when borrowers are very likely to change their behavior causing them to be less able to repay the loan. These two effects make it harder and less likely for the lenders to be able to get back their capital or interest. The informal lenders have an advantage in collection of information about the borrower compared to the formal lender, which decreases their losses. The private firms in this case have very little “hard information,” or
verifiably documented information such as credit rating, income statement balance sheets and so on. To best deal with this information problem the lender has is to “be able to collect soft information or information that is difficult to be approved to and cannot be directly verified by anyone other than the firm who produces it”\textsuperscript{32}. To be able to obtain such information often requires a close relationship between barrowers and lender. The formal institutions have a difficult time creating such relationships because of their hierarchical structure and government intervention. But the informal lenders often have a relationship with the borrower through reputation, family or friends. This makes it easier for the informal lender to obtain soft information from the borrowers. This results in informal lenders having more information about the borrowers which leads to a comparative advantage over the formal lenders. Therefore informal lenders can sometimes lend out money when formal lenders cannot. The information eliminates or decreases the problem of adverse selection caused by asymmetric information. The informal lenders also have an advantage in supervising the development of the loan. Through the close relationship that often exists with the relation of regions, occupation and consanguinity. This leads to close contact so that the lenders can take action if they start to notice that the borrowers will not be able to repay in time.

For lenders to be able to loan money from a formal financial institute, they need to be able to present collateral to increase the probability to be able to take back the capital and interest from the borrower if he/she cannot repay the loan in time. Informal lenders often do not demand collateral and if they do they are much more flexible than the formal institutions. This means that many things cannot count as collateral in the formal financial market that can be regarded as collateral in the informal financial market. This improves the chances for a loan in the informal sector since most of the private small and medium sized firms in developing countries do not have things that count as collateral in the formal market. An example of this is land or buildings. There are other kinds of collateral that work in the informal sector that do not work in the formal sector. First there are interlinked contracts\textsuperscript{33}. Interlinked contracts mean that the loaner and borrowers have relations between each other in other markets beside the credit market. They incorporate the information about other trades into the credit contract and this provides the qualification and solvency for the borrower. It increases the cost of default to borrowers, makes the loaner keep certain control of the borrowers and stipulates


borrowers to use the loan correctly and repay the loan in time. Second, important collateral that is invisible but often accepted in the informal sector is the relationship between the borrower and the lender. The relationship is looked upon as a kind of resource. The ties between lender and borrower are built-up over the years and are usually very strong. These ties work as an effective enforcing power for the loans and a safeguard mechanism that formal credit institutions do not have with their customers. If the borrower pays back in time the relationship can grow stronger, but if the borrower does not repay the loan the relationship will become weakened or be destroyed. The relationship between borrower and lender minimizes the monitoring cost. The lender can raise more money at a lower cost from the informal sector since the span of collateral that small firms have are more accepted.

The nature of informal lending leads to lenders not being exposed to an interest rate ceiling. This has been a problem for China since the inflation has been higher than the interest rates. This means that the customers have been losing money when they have had their capital deposited at the bank. This has resulted in that people have been spurred to lend out their money to the informal market instead of depositing them at the bank. Leading to that they have been able to receive much higher returns\(^{34}\). They are also not subject to taxation, which leads to a comparative advantage over institutions in the formal sector. Since the informal sector does not have any regulations, it is more efficient than the formal sector.

3 The situation of private firms in China

There were only around 1,500,000 established individual business households in China by the end of 1978\textsuperscript{35}. This has drastically changed and over 30 million private businesses have been established in China since and still was the majority of private firms excluded from the formal financial system\textsuperscript{36}. The private sector has been an important part of China’s economic development after the reforms 1978. When China started to reform they did not have a blueprint and the reforms were in many cases approached gradually. The starting point for many of the reforms was experimental and started by the people, not the government. This is an example of the bottom-up approach\textsuperscript{37}. This resulted in privatization being uneven throughout the different institutions and provinces in China. If private firms were a bottom-up case, the people took the initiative and started to use the new ownership form without the government’s formal recondition. China legalized individual firms (less than 7 employees) during the period 1978-83 and private firms (more than 7 employees) between 1984 and 1992. The private firms were/are often labour intensive small industries. One big step forward for private firms was Ding Xiaopings famous “southern tour” where he proclaimed that he liked what he saw (more of a market economy). During the 1990’s, the government encouraged the SOE and the collective firms to be privatized. In 1993, private firms were legalized by the constitution. The industrial output by non-state enterprises changed from 22\% of the total share in 1978 to 56.9\% in 1993\textsuperscript{38}. The domestic private sector stands for 27\% and foreign private sector stands for 6\% in 1998\textsuperscript{39}. As higher productivity in the different sectors has created unemployment the new private firms have been more accepted because they have both employed people and paid government revenues. A recent study showed that 9 of 10 new jobs created by private firms and in many local regions in China tax revenue from private firms stands for over 80\% of local government revenue\textsuperscript{40}. Even though the private sector had a very positive impact on China during this time, the private sector was regarded as a source of economic disorder and social evil. The private firms were often under attack resulting in too that financial institute was unwilling to grant loans to private firms. Many private firms had to take the shape of a township village enterprise to get access to loans (the so-called red hat

\textsuperscript{36} Tsai, Kelle, “Beyond banks: The local logic of informal finance and private sector development in China”, (sep 2001), p. 4.
\textsuperscript{37} Lin, Justin, Cai, Fang, Li, Zhou, ”The lessons of China’s Transition To Market Economy”, (1996).
\textsuperscript{38} Lin, Justin, Cai, Fang, Li, Zhou, ”The lessons of China’s Transition To Market Economy”, (1996).
\textsuperscript{40} Huanxin, Zhao, “Private firms powering China economy”, (2006).
phenomenon). The private firms had to pay fees to the government to be able to do this. In September 1997 the National congress admitted that the non-public economy is very important for China and the coexistence of different ownership form is a key factor of the basic economic system. This was the starting point for the government to take measures to protect the legal income of private firms, protect the legal rights and start working for fair competition among the different ownership forms. This change in the view of the government shall help clear the channels by which private firms get loans from state-owned commercial banks and the government have taken some concrete steps. For example the government has developed a loan guarantee system and removed most restriction on the investments field of private environment to encourage commercial bank to lend out money to small and medium businesses. The government also started to clean up NPL in the four major commercial banks by establishing bank asset management companies (BAMC). These BAMC should take on some of the NPLs and try to reduce them with more flexible means. Substantial effort has been put into a new upgraded loan classification method that is more forward looking in identifying possible problems in loans instead of the old more backward looking system. This has started to change the lending and investment climate in some way. Despite this, private firms still have a hard time being accepted by society and they still get discriminated against. The view is rooted in all parts of the society and in many cases it is dependent on ideology and political concerns. This leads to a number of problems that private firms still face. The private firms still lack legitimacy and a weak legal status leading to inadequate property rights protection. As a result, private firms can be heavily discriminated against at any time from the government. Other examples are barriers to entry (access to premises, licensing and so on) and a disadvantage in securing raw materials. There is also a discriminating measure from individuals toward the private firms. This ranges from illegal fees, to taxes and corruption. Related problems to this are the heavy and complicated bureaucracy that private firms meet. This creates a slow process with many different layers of authority to go through. This increases the opportunity for governmental corruption. The access to get formal financing is very hard both through banks loans and other sources.

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41 Township and Village Enterprises (TVEs) are entrepreneurial communities based in townships and villages in rural areas of the People's Republic of China.
3.1 Private firms in China and their access to formal capital

Many of the aspects of China’s financial system are very similar to other developing countries. Meaning most of the formal credit is extended from domestic financial intuitions and the state-owned banks are the absolutely most important intuitions. The capital market, non state-owned banks and non-bank sources are less important. In 2002 the loans from financial institutions accounted for 76% of the funds raised by non-financial businesses and 93% of them were from domestic sources\(^{45}\). As a result, the financial institutions in China have a great power over who will get access to formal credit. The commercial banks are the most dominant factor in the finance institutions sector. Below is a table that shows the allotment of the major financial institutions in China and their main source of funds, main loans customer and how many of them there are.

Figure 1. Major financial institutions in China

<table>
<thead>
<tr>
<th>Institution type</th>
<th>Number of entities</th>
<th>Main source of funds</th>
<th>Main loan customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peoples Bank of China (Central bank)</td>
<td>1</td>
<td>Government</td>
<td>Commercial banks</td>
</tr>
<tr>
<td>Policy banks</td>
<td>3</td>
<td>Government deposits</td>
<td>SOE</td>
</tr>
<tr>
<td>Commercial banks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● State commercial banks</td>
<td>4</td>
<td>Individual, enterprises deposit</td>
<td>SOE</td>
</tr>
<tr>
<td>● Other commercial banks</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban co-operative/commercial banks</td>
<td>n.a.</td>
<td>Individual, enterprises deposit</td>
<td>Urban collective enterprises, small SOE</td>
</tr>
<tr>
<td>Urban and rural credit co-operatives</td>
<td>5200 (urban) 50000 (rural)</td>
<td>Individual deposit</td>
<td>SOE, large state enterprises</td>
</tr>
<tr>
<td>Trust and investments companies</td>
<td>240</td>
<td>Government entities and foreign borrowings</td>
<td>Local government, SOE</td>
</tr>
<tr>
<td>Securities companies</td>
<td>97</td>
<td>Enterprise</td>
<td>enterprizes</td>
</tr>
<tr>
<td>Finance, leasing and insurance companies</td>
<td>n.a.</td>
<td>Enterprise and individuals</td>
<td>Local governments, enterprizes</td>
</tr>
<tr>
<td>Foreign banks</td>
<td>162</td>
<td>Foreign deposits</td>
<td>Foreign-founded enterprizes</td>
</tr>
</tbody>
</table>

(n.a. = not available)

Source: OECD 2000

3.2 Bank loans

Small and medium size enterprises account for more than half of the GDP in China but receive less than 10 % of total bank loans. The difficulty private firms have obtaining financing depends partly on the financial system and partly to the nature of Chinese private enterprises.

There is a large problem for private firms to get access to loans from the commercial banks and it depends much on how the bank system was/is built up. Before 1978, the Peoples Bank of China acted both as a central bank and commercial bank. In 1979, China started to build new institutions which divided the People’s Bank of China from The Ministry of Finance. There were four banks created between 1979 and 1984: The Agriculture Bank of China, The People’s Construction Bank of China, the Bank of China and the Industrial and Commercial Bank of China. The new commercial banks were responsible for handling different sectors of the economy. They could theoretically compete with each other, but the banks were working under the government and acted mainly as policy-lending conduits where the competition between one another was very limited. In the middle of the 1990s, there were three new policy banks established and the Chinese government introduced a new commercial bank law. This law was formulated to protect the legal rights and interest of the commercial banks depositor and other clients. Article one also clearly says that it will “promote the growth of socialism market economy”. This was the starting point for the entrance of additional bank and other credit institutions. By 1999 there were twelve joint-equity commercial banks, four state owned commercial banks and ninety city commercial banks. There were other financial institutions created such as trust and investments companies and networks of rural credit cooperatives. This increased the competition within the financial sector. Despite the increased competition, the state-owned commercial banks remained the largest and most dominant. The share of total assets has declined, but the four state-owned commercial banks stand for three-quarters of the commercial banks assets. All banks are expected to operate under market principle and maximize the profit that can be seen in articles four and nine in the commercial banks law, but the banks are still pressured from the central and local governments to engage

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49 OECD (2005), OCED Economic Surveys: China, p. 140.
in policy lending and they do not have the autonomy to choose their customers\textsuperscript{50}. This is mainly because the state is the majority owner of the banks and the chief executive of the state-owned central banks (SOCBs) is government appointed. This can be penetrated through looking at the commercial bank law article number 34 that says “\textit{A commercial bank should issue loans in accordance with the need of the national economy and social development and under guidance of the state industrial policies}”. Furthermore there are very close ties between local governments and bank officials creating culture giving the local government influence over bank lending decisions. This becomes a corporate governance problem\textsuperscript{51}. The state sector has not always had the same goals compared to a shareholder, board or manager. For example, the shareholders’ goal is to maximize profits with hard budget constraints while the state values other issues with soft budget constraints\textsuperscript{52}. This also results in the state pressuring banks to lend out money to SOE effecting in a crowding out effect making it hard for private firms getting access to the bank loans. This widespread and inefficient way of allocating credit from the commercial banks to SOE have lead to that these banks having a higher ratio of non-performing loans (NPL). In 1998, the NPL was 25-30\% of the deposits in deposit taking banks\textsuperscript{53}. High levels of NPL’s have resulted in declining profits for the banks. This has created a very tough environment for the private firms since it has left less room for private firm’s to obtain credit from the banks and the system is more vulnerable to the credit risks. This problem is reinforced by the thought that, “\textit{banks still don’t think that a bad loan to a SOE is as serious as a bad loan to a private enterprise}.”\textsuperscript{54} Experience indicates that the state will bail them out if the SOE fails to pay back the money, private firms do not have that luxury. As long as the banks perceive it to be riskier to lend out money to private firms, the private firms will be discriminated against. The outcome of the situation becomes a negative spiral. China has created a great progress in the situation with government interference in bank lending and the banks NPL by recent reforms. Does continuing the operation of a large number of loss-making SOEs suggest that the commercial banks are not free from the government? A survey by the WTO in 2005 showed that one fifth of the respondents thought that discrimination was a large reason in not obtaining a bank loan\textsuperscript{55}.

\textsuperscript{51} Corporate governance is the set of processes, customs, policies, laws and institutions affecting the way a corporation is directed, administered or controlled.
\textsuperscript{52} Soft budget constraints are when the government gives subsides for losses of a firm and hared budget constraints are the opposite.
\textsuperscript{55} OECD (2005), OCED Economic Surveys: China, p. 142.
The banks need more incentive to lend out money to the private firms. If there is a higher risk of losing their capital there will be greater returns. The higher returns would normally increase the interest to lend out money to private firms. There are three factors that work against this in the Chinese system: First, the new economic reforms that minimizes the losses of the banks by reducing the accumulation of NPL. This results in the banks being less interested in taking risks even if the profit increases. The central bank tries to impose a rule that makes credit officers personally responsible for bad loans, which makes them very careful to give loans to the private sector. Furthermore there is a tendency that they are even less likely to get blamed for a bad loan to a SOE than a SME. Secondly, the banks have limited competition, resulting in a low profit incentive. Thirdly, the banks do not have any tools to increase their returns because the interest rates and transition fees have been controlled by the government. This problem has diminished as the restriction from the government has gradually relaxed especially since joining the WTO in 2001. But problems remain. For example, in 2004 banks were able to give lending rates to SMEs up to 70% above regulated rates. Banks were allowed to lend out money to borrowers at a rate between 4.80% and 9.00%. At the same time customers deposited money at the banks at an interest rate of about 2%. This results in up to a 7% spread to cover all their expenses and still post a reasonable profit. Other factors that affect the chances for private firms to get access to capital are: the cost for processing and administering often are higher with smaller loans. Also, the banks do not have any prepared work routine for loans to private firms. This makes it seem more risky to lend out money to them and the loan approval procedures are complicated and discourage lending to private firms.

There are different factors concerning private firms that make it hard for the formal institutions to do analysis of the risks to give private firms credit. This creates obstacles in the way for the private firms to get formal credit. First the banks have a hard time screening the private firms as they are not very transparent and their ownership forms are sometimes exceptionally blurred. For example, it is very common for private firms to use two or three sets of financial records, one for the owner, one for the bank and another for the tax authorities. Furthermore, audits of financial statements can be unreliable since the auditors often are willing to accept bribes to improve the firm’s numbers. This makes it very hard for

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57 For example in Guizhou and Guangxi must all loans (apart from firm’s with the highest credit rating) be approved by the banks provincial headquarter.
the banks to monitor and trust the private enterprises. Additional causes for this is poor credit history records and scarcity in the enforcement of bankruptcy legislation which increases the credit risk with private firms. The last problem mentioned means that it can be hard to enforce the contract through the Chinese court system\textsuperscript{58}. As a result, collateral becomes a very important instrument for the banks. It is especially difficult for private firms to present collateral, even if there are a number of assets that qualify. Collateral most often applied are real estate assets. It is forbidden for non-Chinese entities or private enterprises to own land in China, resulting in many private firms not having land-use rights for buildings which subsequently can be used as collateral. In the rare instance when a company possesses collateral, they must establish a value for that collateral every year, which is a very costly process. OECD presented a study in 2005 showing that half of the private firms that had a problem receiving formal financing found the lack of collateral to be the major barrier\textsuperscript{59}. For many years, private enterprises have been discriminated against and have just recently been given the same official footing as state owned enterprises. Due to the discrimination against private firms, many of these enterprises have tried to change or lie about their legal status to get better treatment from the government. This results in a lack of clear ownership, management structure for private firms, and dilutes the problems of trust and transparency with the banks.

3.2.1 City commercial banks and local financial institutions

Many of the problems described above can be limited or reduced on lower levels through the use of city commercial banks and local financial institutions. This reduction of problems can be accomplished due to the fact that city commercial banks and local financial institutions have better access to grassroots information. This makes it easier to construct an analysis of the company which in turn reduces the credit risk for the lenders. To further help the loan processes there are fewer layers of authority at the local level and the credit approval process is less complicated. The major problem facing city commercial banks and local financial intuitions is the fact that they do not have sufficient means to lend out. The demand is much greater than the supply\textsuperscript{60}. Also is the different creditors influenced by altered governmental authorities.

\textsuperscript{59} OECD (2005), OCED Economic Surveys: China, p. 142.
\textsuperscript{60} World Bank, 2004d, “Investment Climate for Small and Medium Enterprises (SMEs) In southwest China” (2004), p. 42.
3.3 **Stock market**

Another way for private firms to potentially collect capital in the Chinese financial system is to list their enterprise in the stock market. Although the stock market has expanded significantly since the interdiction in the early 1990s, few if any private sector companies have used it to finance their businesses. This lack of development of the stock market has been caused by its lack of transparency and underdeveloped legal and regulatory framework. A second reason for the lack of development has been the dependence on the antiquated Chinese quota-system. Between 1993 and 2002 the system was built up in a way that annual quotas of initial public listings were decided in baring process between central agencies and regional governments\(^\text{61}\). Each province was given a quota of new listings and the firms chosen were heavily influenced by provincial politics. The central government also gave recommendations of which firms should get listed\(^\text{62}\) to further complicate matters. These policies resulted in abject discrimination towards private firms and only SOE were recommended. Specifically in 1999, only one percent of companies listed on the Shanghai and Shenzhen stock exchanges were non state firms\(^\text{63}\).

3.4 **Non-bank sources**

As already explained, the state commercial banks dominate the market when it comes to lending out money. Quite simply they possess most of the assets. This has resulted in other financial sources such as equity financing and leasing companies not being developed enough to be real competition for the state commercial banks in terms of lending power. It is also very difficult to start up new financial firms to help alleviate the state bank stranglehold of monetary access because the complicated regulations and strict laws. It should be mentioned that these non-bank sources of capital are in varying degrees of development depending upon which part of China they are located. The coastal and more populous regions are far more developed than the Western and sparsely populated parts of China.

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\(^{61}\) State Council more or less decided the number of firms to be listed and the amount of capital to be raised.


3.5 Credit Guarantee Facilities

To their credit, the Chinese government has tried to establish different tools to increase the access to capital for private firms. Among them are credit guarantee facilities (CGFs). The “Credit guarantee systems are intended to shift the banks risk-reward frontier so that loans to smaller scale borrowers, for longer terms, and/or with no or lesser collateral requirements can be included as additional items in the development of profitable business”\textsuperscript{64}. This results in banks reducing their potential losses and encourages them to lend money to riskier investments like private firms. Though these tools have not worked out as well as planned, they have enhanced the access to capital for SME but only to a limited extent. The problem that most often occurs is the CGF is a much smaller amount of capital compared to what is needed. There is a much larger demand of lending from SME than the CGF has the resources to lend out. There is also a problem when the CGF steps because the private firm often lacks the qualifications and necessary experience to carry out the work in a correct and profitable manner. An example of this is for a private firm to put the right value on intellectual capital. There is also an incentives problem when the CGF workers do not get anything to actually make guarantees to SMEs\textsuperscript{65}.

3.6 The World Trade Organization

In December 2001, China entered the World Trade Organization. They had to adopt different regulations with their adoption period lasting up to five years. One example of the regulation demands on China from the WTO is the country has to liberalize their interest rate as well as to let foreign banks lend out foreign currency to local firms. Through the WTO demands for regulation, China should stimulate foreign entry and increase competition between their domestic banks and foreign banks. This should provide an incentive for the domestic banks to broaden their lending to private enterprises and for the government to increase the speed in which there are new reforms. An example of this is to pressure firms to have international accounting standards, clearer ownership form and the banks to establish standards for credit rating and lending conditions. Experience so far suggests that the foreign bank shares of the domestic market have not risen significantly faster than they did in the years before the 2001 entrance into the World Trade Organization.


Graph 2. Number of New Foreign Banks Branches Established 1999-2003

Source: People’s bank of China: Quarterly Bulletin

This graph suggests that the slow growth of foreign banks occurs because foreign banks continue to believe the Chinese market is still too risky of an investment. The thought of increased competition from foreign lenders for the state controlled banks has been enough to improve their production and raise their efficiency. The banks have also succeeded to be more independent from the institutions, but improvements still need to be made. Foreign banks have created positive contributions to the Chinese marketplace by their interest in alliance with domestic banks. This has supplied China with outside experience and has given them access to new technology and business methods. Basic customer service levels have also improved greatly.

4 Hypotheses

The lack of access to capital markets is a very serious problem for the private enterprises in China. Today the private firms rely deeply on self financing. A study completed in the year 2000 showed that more than 90% of the initial capital for private firms was raised from the principal owners, the start–up fees and their families”67. It is most important for the Chinese to be able to change the system, hence when the private firms grow to be large and cannot finance the investment with their own capital, that they have the opportunity to seek capital from a formal institution. Both the banks and the private firms have to feel safe about their future so they can act on a long horizontal view and invest rather than just think of the short-term benefits. This is absolutely crucial for China to continue on the road to improved welfare. This paper will attempt to find out statistically if it can be proven that there are some key determinants for China’s private enterprises that forces them to lend money from family and friends instead of banks. It will not be possible to test all of the earlier in theory proven correlations between family lending and different variables because of lack in the data. This paper will try five different hypotheses. The different hypotheses shall try to prescribe if lending from family and friends is affected by following areas: risk, liquidity restrings, political connections, size and relationships. The hypotheses are as follows:

Hypothesis 1

The lower degree of political connections the private firms have, the higher frequency of lending from family and friends.

First, China is a developing country with imperfect protection of private properties. It was as late as March 2004 that formal protection of private properties was formally written into the Chinese constitution. If private properties are not protected properly, they are subject to expropriation by various parties throughout society, particularly by government officials68. The government officials may impose informal levies and bribes for personal gain or increase their revenues. This makes it risky for banks to lend out money to private firms69. If the private firms have good connections with political and government officials, these connections will help the private firms avoid discrimination from the government. Thus they

are a less risky object to the banks and result in having easier access to banks loans\(^{70}\). The private firms that do not have these official connections have to then turn to the informal sector.

Secondly, the commercial bank shall be independent and be able to make their own choice regarding lending according to the commercial bank law\(^{71}\). In reality this is not the case, as the majority of the banks are under the influence of both central and local government. The government is the majority owner of the four larger banks and the local politicians influence the selection of senior appointments at the local banks, resulting in banks extending loans according to government preferences\(^{72}\). This is also a variable way private firms that have close contact with the government more often get their loan applications approved from the banks than the private firms that don’t have the necessary political connections. This results in the less connected private firms having to turn to the informal sector to get a loan.

**Hypothesis 2**

The higher degree of liquidity restrings the private firms have the higher frequency of lending from family and friends.

Private firms are often small and relatively new, thus they often have little collateral and high levels of debt\(^{73}\). These are two examples of what makes private firms less capital strong. When the firms are less capital strong they convey the message that it is harder to obtain money from the formal institution. For example, formal banks often use a credit scoring model to determine if the borrower shall be qualified to borrow money or not. The credit scoring model screens the application submitted from a particular company by looking at different variables. The variables that the credit scoring model uses attempts to measure the financial status of the firm. The variables have the characteristics such as liquidity, profitability, leverage and activity. If the loans receive two poor scoring points they are considered bad loans and they are not further treated in the process to receive a loan\(^{74}\). This is one way in which the bank tries to minimize their capital losses. When the private firm cannot receive a loan from the formal sector, they have to turn to the informal sector. The informal

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sector in this situation has a comparative advantage over the formal sector in the situation outlined by the hypothesis. Exactly the same argument applies here (look for more information in the hypothesis above for more information).

Hypothesis 3

_The higher degree of risk the private firms face, the higher the frequency of lending from family and friends._

The financial formal market is less willing to lend out money to relatively risky categories of borrowers. In a developing country with many poor people and a weak legal system, the private firm’s economic situations can change drastically. Areas that are important to private firms, like agricultural activity, are very dependent of factors that can not be changed by human beings. The credit market is less developed in dealing with risk especially in the rural areas, and the imperfect information about the firm does not help. When you have entered a contract, it can be difficult to enforce it since the legal system is weak. This would cause the banks to be wary of lending out money to private firms which have uncertain amount of assets or large amounts of debt. The larger these risks are, the fewer banks will lend out money to private firms. On the other hand, the non market institutions will be able to lend out money since they have a comparative advantage in the monitoring of the private firms as the lender and the borrower tend to know each other well. This results in that the informal market can lend out money when the formal cannot. The informal sector also has a comparative advantage in the enforcement capacity through their often close relationship to the lender. There are social controlling mechanisms that punish the lender if they are not able to repay the lenders money. An example of this social controlling mechanism is a borrower’s reputation resulting whether or not that they can get into a particular non formal network.

Hypothesis 4

_The higher the degree of the relationship private firms has with banks, the lower the frequency of lending from family and friends._

Many private firms in transaction economies are not transparent. The lack of transparency restricts the banks from lending out money since they have too little information about the

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company to determine the value of the risk of the firm defaulting on the loan. Consequently, banks lend out less capital to private firms. If a bank and a private firm have a relationship that over time allows the bank to obtain “soft information” or private information about the firm, this information will create a higher degree of trust than most firms can hope to achieve. If the bank can also obtain information about the character and reliability of the firm’s owner, information that does not exist on paper or in some other place, that too can easily help the status of the private firm. This soft information creates trust, fills in missing caps which makes it easier to find financing solutions between the two parties. This private association builds bridges beyond those possible through strictly market relations. This quality relationship between the bank and the private firm results in a better chance for a formal bank loan, and the private firm does not have to seek finance in the informal sector.

**Hypothesis 5**

*The smaller the private firms are, the higher the frequency of loans from family and friends will be undertaken.*

First, small enterprises have a tendency to experience high failure rates. The high failure rate increases the likelihood that the client will default on a loan, which is the bank’s most important criteria when determining the creditworthiness of an enterprise. Resulting in that the smaller the private firm is the smaller the chance they have to be able to borrow money from a formal financial institution. This leads to smaller enterprises having to turn to informal lending where the relationship is valued more than the creditworthiness.

Secondly, it is difficult to know the ability of entrepreneurs and the viability of the enterprises. Formal credit institutes have to depend heavily on an entrepreneur’s track record and available collateral. Smaller firms often have less collateral and a shorter track record. This results in information asymmetries likely to be large for smaller firms. Leading to that larger firms have a better opportunity to obtain bank loans, while smaller firms have to turn to some alternative funding sources such as informal lending. Informal lenders are willing to lend out money more readily since the informal lenders often have a personal connection to the borrower. This also makes it easier for the informal lender to obtain soft information from the

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borrower, due to their personal connection. This in turn results in informal lenders having more information about the borrowers, which can lead to a comparative advantage over the formal lenders. An obstacle that cannot count as collateral in the formal finance market can be regarded as collateral in the informal finance market, which in turn widens the supply of collateral greatly and improves the chances for a loan in the informal sector.

Thirdly, banks prefer to lend to larger firms since the cost for processing and monitoring small loans exceeds the same costs of large loans issued to large enterprises. A study of financing provided to small enterprises in Ghana showed that banks estimated that they took an average of 24 staff-days to gather information and process an application for a small enterprise compared to 16 days for a large-scale firm. Another problem for small firms that inhibits them from formal lending is the cost of completing bank forms correctly, a cost which does not exist in informal lending and which large firms can more easily handle.

5 Method, model and Data
I have chosen to use a linear regression to test the theory. The dependent variables are working capital financed by family and friends. These dependent variables are regressed upon a group of independent variables (political, economic, risk, relationship and size) hypothesized to have an effect on the choice. The result can establish if there is any correlation between the regressions and the dependent variables. The correlation level determines of how significant the values are. The significant codes are the following: Three stars (*** ) shows that 99.9% of the time the test is done the result is accurate and to 0.001% times the test will be wrong. In the same way will (** ), (*) and (.) show that 99%, 95% and 90% times the tests is done the result is accurate and test will be wrong 0.01%, 0.05% and 0.10% times.

The information in this report comes from articles and secondary sources. The data for the regression is presented by the World Bank Investment Climate Survey for China 2003. The World Bank developed the survey to investigate and develop a better understanding of the conditions in the local investment climate of China. The World Bank Investment Climate Survey for China 2003 consists of 2400 companies’ responses. Literature studies have been carried out to obtain an overall understanding of the existing situation of the bank sector and the informal lending in China.

The ICS has some limitations. When there is a risk of prevailing the identities of the enterprises in the surveys, ICS will exclude them from the test. This is not preferred in a study but as we know China is a dictatorship and this course of action is important to get participant to the survey and that they answer honestly. The measurements of ICS do not have any effect on the outcome.

5.1 The Model
The linear regression writes as:

\[ y_i = \beta_1 + \beta_2 x_i + e_i \]

The \( y_i \) is the dependent variable, \( \beta_1 \) is an intercept, \( x_i \) is an explaining variable that is not random and \( e_i \) is a random term. The variation of \( y_i \) is divided into one systematic part and
one random part. The systematic behaviour of $y_i$ in the equation above concludes of the parameter $\beta_1$ and $\beta_2$ and estimator with $b_1$ and $b_2$ according to\textsuperscript{82}:

$$b_2 = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sum (x_i - \bar{x})^2} = \frac{N\sum x_i y_i - \sum y_i \sum x_i}{N\sum x_i^2 - (\sum x_i)^2}$$

$$b_1 = \bar{y} - b_2 \cdot \bar{x}$$

$$y_i = \beta_1 + \beta_2 \cdot x_{i1} + \beta_3 \cdot x_{i3} + \ldots + \beta_n \cdot x_{in} + e_i$$

To be able to estimate $\beta_1$ and $\beta_2$ with $b_1$ and $b_2$ it is very important that the spot checks are sufficient and informative.

The linear regression can be rewritten and developed to contain endless with variables:

$$y_i = \beta_1 + \beta_2 \cdot x_{i1} + \beta_3 \cdot x_{i3} + \ldots + \beta_n \cdot x_{in} + e_i.$$

It is not easy to estimate $\beta_1$, $\beta_2$, ..., $\beta_n$ as in the model above, because the model generates an equation system with the same amount of unknown terms as there are parameters, and that is $n$ pieces. This equation system can be solved with a matrix. This is usually very hard to do by hand and that is why different programs can be utilized to assist in creating the matrix. The World Bank Investment Climate Survey has provided the function to solve the linear regression equation.

In this case the variables $x_1$, $x_2$, ..., $x_n$, where $n$ is fourteen, in the case of percent of working capital financed by loans from family and friends. The estimation of the parametrical will show how the different variables will affect the informal lending to working capital in private firms.

5.2 Variables

This thesis will test the significance of political, economic, risk, relationship and size variables that determine working capital to private firms in China. The variables chosen are limited because the variables presented in the survey from the World Bank investment climate survey are scarce.

\textsuperscript{82} Westerlund Joakim, "Introduktion till ekonometri, Studentlitteratur", 2005.
5.2.1 Dependent Variables

This paper will test the one dependent variable that describes the market of loans from family and friends. The dependent variable is: percent of working capital financed by loans from family and friends. The variable working capital financed by loans from family and friends needs explanation. Working capital is current assets minus current liabilities. It is the cash and other liquid assets needed to finance the everyday running of enterprises such as the payment of paychecks and the purchase of raw materials. Working capital measures the amount in liquid assets a company has available to build its business. In the survey, 1342 of the total firms surveyed in 2004, claimed that they had borrowed money for new investments from family and friends. Of the 1342 firms, 1091 had the current legal status: private, non-listed company. A total of 1919 enterprises said they had borrowed money from family and friends to use as working capital, of which 1550 had the current legal status: private firms. From this, you can draw the conclusion that most of the companies which lend money from family and friends are private enterprises.

5.2.2 Political variables

As discussed in earlier sections in this paper, the government has an important roll in who gets access to the formal financing. In a statement from an entrepreneur in China 2006 “As entrepreneurs we are condemned either to being the concubines of the state enterprises or the mistresses of multinationals” shows that the state still favours state-owned enterprises and foreign investors. This behaviour reflects that it is harder for private firms to get formal credit when they have less political connections. Indirectly, the government affects the banks to prioritise firms that are knotted with the government and the firms that are not have to seek financing from other sources. The government helped large ineffective SOE with artificial birthing instead of supporting the effective smaller firms. To measure the political influence over the financial system and see if they directly affect the move to more informal lending, the following proxies are used. First is “what is the position of the general manager in the party”. Where the question can be answered with different status from non party member to the party secretary. The second and final political proxy is “Is the government represented on the Board”. As before will having the government represented on the board open up doors and create relationships that will give the private firms the possibility of getting bank loans.

5.2.3 Economic variables

The economic variables are important since they explain in what condition the firms are in and in what direction they are going. In financial theory, shall any enterprise with positive economic net, present value and obtain credit at a competitive price.\textsuperscript{85} This implies that the better economic result the private firms can show or if they are on a upward trend, it should lead to less informal lending considering they can than use more formal credit players. The economic variables are represented of: “Total profit one year ago“.

5.2.4 Risk variable

There are some variables that identify the risk that the creditor will not be able to pay back the loan. A very good proxy to look at is from the World Banks investment climate survey, “What is the banks credit rating of the firm”. This is a key because the banks have to look at the different variables that are important to pass out a credit rating and that is very straight for what this proxy shall investigate. Even if the down side of the proxy it is that countries use different measures for what variables are important in a credit rating. This paper will not be able to calculate with this proxy since there are only 283 numbers of observations which makes the sample too small in the combination with the other variables. Instead, this paper does bring up questions from the survey that could be good proxies for the risk factor. The questions are “Total liabilities 1 year ago” which for obvious reasons tells something about the risk of lending out money to the firms. The same situation is with the question of “Total assets” The last proxy for risk is “Percent of net profit re-invested last year”. This variable says something about how much the firm believes in themselves and the future. The more the firm re-invests, the better chance the lender has to make good on a loan.

5.2.5 Relationship variables

There is asymmetric information between borrowers and lenders. Relationships can diminish such problems by the generation of information between the two actors that built over the informational problem. The lenders get easier access to the borrower’s financial status, which can be very hard in China because of that the private firms do not want to show any information that the government can use against them. One of the more important variables that creates a close relationship is time. The longer a relationship with a formal institution, the greater chance the lenders can borrow money. The World Bank investment climate survey

\textsuperscript{85}Uzzi, Brian, ”Embeddedness in the making of financial capital How social relations and networks benefit firms seeking financing”, (1999) , p. 481.
contains two proxies that measure the time. First, and straightforward, “What is the length of
time you have done business with your primary institution/bank”.

5.2.6 Size variables
The last section of variables that this paper will investigate is if the size of the firm matters in
their choice between formal or informal lending. The size variable will be measured by the
proxy and question “What is the average number of total employees that work at a given time
in your plant”.

And the variable “size” is already incorporated in the World investment climate survey. This
variable defines as the sum of permanent total employment and a permanent equivalent of
temporary employment. To see how they categorize the size of the firms see appendix last in
the paper.

Figure 2. Chosen variables number of observation and mean

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>NOBSs</th>
<th>Mean</th>
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</thead>
<tbody>
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<td>Party secretary</td>
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<td>22.63</td>
</tr>
<tr>
<td>Deputy party secretary</td>
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<td>6.72</td>
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<td>Party member</td>
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<tr>
<td>Size of the Firms (Large)</td>
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<td>n.a</td>
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<tr>
<td>Size of the Firms (Medium)</td>
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<td>n.a</td>
</tr>
<tr>
<td>Size of the Firms (Micro)</td>
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<td>n.a</td>
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<td>Government represented in the border (Yes)</td>
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<td>29.62</td>
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<td>Average no. of total employees 1 year ago</td>
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<td>Total profits 1 year ago (yuan)</td>
<td>2393</td>
<td>-4360</td>
</tr>
<tr>
<td>No. of years the firm has business with bank</td>
<td>2317</td>
<td>10.12</td>
</tr>
</tbody>
</table>

n.a= not available

Source: World Bank Investment Climate
5.3 Multicollinearity Test

There is a risk of multicollinearity when a linear regression model is used. The multicollinearity is caused by a too strong correlation between variables. This means that there are linear inter-correlations among variables. Different variables simply describe the same information. This can result in lack of statistic significance and wrong signs, magnitudes of the regression coefficient estimates, resulting in that the reader will draw wrong conclusions about the relationships between independent and dependent variables. A model with lower multicollinearity will be more statically robust. A correlation larger than 0.70 suggests there is an existence of linear multicollinearity. If this is the case one of the variables has to be excluded from the test. For example, the total liabilities variable form different years can’t be used (total liabilities one year ago, total liabilities two years ago and total liabilities three year ago).

Figure 3. Correlation between total liabilities from different years

<table>
<thead>
<tr>
<th></th>
<th>Total liabilities one year ago</th>
<th>Total liabilities two years ago</th>
<th>Total liabilities three years ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total liabilities one year ago</td>
<td>1</td>
<td>0.9861</td>
<td>0.9492</td>
</tr>
<tr>
<td>Total liabilities two years ago</td>
<td>0.9861</td>
<td>1</td>
<td>0.9741</td>
</tr>
<tr>
<td>Total liabilities three years ago</td>
<td>0.9492</td>
<td>0.9741</td>
<td>1</td>
</tr>
</tbody>
</table>

(World Bank Investment Climate Survey)

The result shows legible evidence for multicollinearity. All of the correlations are higher than 0.90 %. For this reason the test will only contain the total liabilities from 1 year ago. The reason why the variable “total liabilities 1 year ago” is chosen is because the date is nearest to the real date when the respondent on the survey (Investment Climate Survey) responded to if he/she borrowed money form family or friends.

Below are all the variables that this paper will use in a correlation system. As can be been seen is there no value above 0.70 % which shall mean no risk for multicollinearity.

Figure 4. Correlation between all chosen variables

| Government represented in the border (Yes) | Party member | Deputy party secretary | Size on firm (Micro) | Size on firms (Medium) | Size on firms (Large) | Size on firms (Very large) | Average no. of total employees 1 year ago | Net value of total fixed assets 1 year ago | Percent of net profits re-invested last year | Total liabilities 1 year ago | Total profits 1 year ago | No. of years the firm has business with bank |
|------------------------------------------|--------------|------------------------|----------------------|-----------------------|----------------------|--------------------------|------------------------------------------|---------------------------------------------|---------------------------------------------|-------------------------------------------|----------------------------------------|----------------------------------------|------------------------------------------------|
| Government represented in the border (Yes) | 1            |                        |                      |                       |                      |                          |                                          |                                             |                                            |                                           |                                        |                                          |                                           |
| Party member                             | 0.04         | 1                      |                      |                       |                      |                          |                                          |                                             |                                            |                                           |                                        |                                          |                                           |
| Deputy party secretary                   | 0.19         | 0.15                   | 1                    |                      |                      |                          |                                          |                                             |                                            |                                           |                                        |                                          |                                           |
| Size on firms (Micro)                    |              |                        |                      | 0.03                  | 0.16                 | 1                        |                                          |                                             |                                            |                                           |                                        |                                          |                                           |
| Size on firms (Medium)                   | 0.08         | 0.02                   | 0.01                 | 0.09                  |                      |                          |                                          |                                             |                                            |                                           |                                        |                                          |                                           |
| Size on firms (Large)                    | 0.06         | 0.05                   | 0.11                 | 0.16                 | 0.18                 | 1                        |                                          |                                             |                                            |                                           |                                        |                                          |                                           |
| Size on firms (Very large)               | 0.27         | 0.05                   | 0.06                 | 0.24                 | 0.28                 | 0.47                     | 1                          |                                             |                                            |                                           |                                        |                                          |                                           |
| Average no. of total employees 1 year ago| 0.17         | 0.06                   | 0.10                 | 0.14                 | 0.11                 | 0.25                     | 0.50                      | 1                          |                                             |                                            |                                        |                                          |                                           |
| Net value of total fixed assets 1 year ago| 0.11         | 0.07                   | 0.24                 | 0.06                 | 0.04                 | 0.11                     | 0.18                      | 0.33                      | 1                          |                                             |                                        |                                          |                                           |
| Percent of net profits re-invested last year| 0.02         | 0.00                   | 0.04                 | 0.00                 | 0.05                 | 0.01                     | 0.03                      | 0.06                      | 1                          |                                             |                                        |                                          |                                           |
| Total liabilities 1 year ago             | 0.03         | 0.03                   | 0.07                 | 0.05                 | 0.15                 | 0.09                     | 0.22                      | 0.66                      | 0.06                     | 1                          |                                        |                                          |                                           |
| Total profits 1 year ago                 | 0.08         | 0.05                   | 0.15                 | 0.05                 | 0.05                 | 0.00                     | 0.11                      | 0.35                      | 0.06                     | 0.35                      | 1                          |                                        |                                           |
| No. of years the firm has business with bank| 0.15         | 0.19                   | 0.02                 | 0.09                 | 0.06                 | 0.07                     | 0.29                      | 0.22                      | 0.02                     | 0.01                     | 0.02                      | 0.04                     | 1                          |                                           |

Source: World Bank investment climate survey
5.4 Dummies

In the World Banks investment climate survey are there both questions that are qualitative and quantitative. Some questions are defined in a way that is not relevant for this papers’ target. If they are used, it can result in a distortion from the real outcome. This would make it very hard to interpret the results. To improve and simplify the analysis, some of the questions will be redefined as dummies by the author. For example, it is not interesting to split up the proxy “size” in four different groups and this is because earlier investigations have shown that there is only a correlation between small and large firms and informal lending. Another aspect is of the question “Government represented in the board”, the only thing that is interesting to measure is if there is any government represented. This is because the paper tries to establish if the political connections influence the need to seek money from the informal sector.

The dummies created for this papers model are from following proxies: “What is the position of the General Manager in the Party”, “Size of the firm”, “if the government is represented in the border”. To see definition of the dummies look in the appendix at the end of the paper.
6 Results and Analyses

The linear regression between the dependent variable “percent of working capital financed by loans from family and friends” and the fourteen variables from all the different blocks (political, economic, risk, relationships and size) is there are only three variables that show a significant effect (one is the intercept with a significance of 2.53e-08). The variables that are significant are from the block that measure political connections, and size. Specifically, the variables “is the government represented in the border” and the “size, large”. The first variable mentioned has a strongly significant with a probability value (Pr value) 0.00288 % while the second variable is close to significant pr value of 0.08434 % (see figure 4). There are some other variables that have an outcome that is not very far from the area where the results are marked as significant. The variables are the following: General Manager’s position in the party (party secretary) pr 0, 12706 and Size (Very large). The rest of the results represent very little significance (see figure 4). These results are very surprising due to the earlier theory suggested all variables in the model should have an affect on if capital to the private firms are financed by loans from family and friends.

Figure 5. Percent of working capital financed by loans from family and friends

| Coefficient | Estimate | Pr(>|t|) | Sig |
|-------------|----------|--------|-----|
| 1 Intercept | 8.647e+00 | 2.53e-08 | *** |
| 2 Party secretary | -2.475e+00 | 0.12706 | |
| 3 Deputy party secretary | -3.485e+00 | 0.20538 | |
| 4 Party member | 4.372e-01 | 0.79366 | |
| 5 Size of the Firms (Very large) | -2.898e+00 | 0.12914 | |
| 6 Size of the Firms (Large) | -3.273e+00 | 0.08434 | |
| 7 Size of the Firms (Medium) | -2.324e+00 | 0.31294 | |
| 8 Size of the Firms (Micro) | -3.591e+00 | 0.15939 | |
| 9 Government represented in the border (Yes) | -4.176e+00 | 0.00288 | ** |
| 10 Average no. of total employees 1 year ago | -1.641e-04 | 0.73460 | |
| 11 Net value of total fixed assets 1 year ago | 5.479e-08 | 0.97094 | |
| 12 Percent of net profits re-invested last year | -2.273e-03 | 0.90012 | |
| 13 Total liabilities 1 year ago | -4.067e-07 | 0.67691 | |
| 14 Total profits 1 year ago | -1.194e-07 | 0.96808 | |
| 15 No. of years the firm has business with bank | -9.356e-02 | 0.22471 | |

Number of observations 598, Multiple R-Squared 0.04395, Adjusted R-Squared 0, 02099, P-value 0,002252

Source: World Bank Investment Climate Survey
If the Pr value is not significant, that usually means the result should be ignored. By the estimate you can see if the variables affect percent of working capital financed by loans from family and friends positive or negatively.

Even if the results are not verified by all the proxies that measure respectively, this blocks the model’s hypothesis that “The lower degree of political connections the private firms have, the higher frequency of lending from family and friends” and “The smaller the private firms are, the higher the frequency of loans from family and friends will be under taken”. The reason that not all the proxy’s within the same block show a significant result follows (both generally explanations for the variables and individual explanations will be discussed). One reason for all the proxies not being significant in the same block is if they do not measure what the writer intends them to measure or they do not measure the same thing. This obviously leads to the proxies that do not show any relation to each other. Looking at the block size, the explanation can be that the definition of the different categories was incorrectly made. For example there may be too few firms in some of the groups to establish accurate results for the real-world situation in China. It can also be that the size of the firms only influence if private firms borrow money from family and friends if they are of a certain size. When the firms are medium to large, there is no clear-cut path. Resulting in that the companies must be large or small to have an effect on if the firms must borrow money from the informal market. Irrespective of the position of the general manager if the party does not seem to have an effect on if the private firms have to borrow capital from family or friends. For the category party member this outcome can be caused since most of the private firm’s leaders are members in the party. This condition would lead to that it would be hard to measure if this political connection influences the firms not to have to borrow money from the informal sector. For the categories deputy party secretary and party secretary it can be hard to appoint a relationship in the model because they may choose if they want to borrow money form the formal or the informal sector. They both have the connections to open up doors in the formal sector (banks) and the informal sector with their great contact net. The different alternatives have altered benefits. For example informal lending from family and friends often results in a very low interest rate without any time for the handling process whereas the banks often can offer a larger loan without any strings attached.
The hypothesis: “The higher the degree of the relationship private firms have with banks, the lower the frequency of lending from family and friends,” “The higher degree liquidity restrings the private firms have the higher frequency of lending from family and friends” and The higher degree of risk the private firms face, the higher the frequency of lending from family and friends does not get any support from the proxies and the model in this paper (the economic, risk, and relationship sectors). This might be because the proxies do not measure what the writer intends them to measure. The responder can also have misunderstood or misinterpreted the questions. Or they could have deliberately answered the questions incorrectly because they wanted to mislead the survey or they were afraid to answer truthfully because they did not think the study was anonymous. This would lead to the survey not corresponding with the reality and the result from the linear regression would be wrong.

Another factor could be that the regressions need more than one year to show a relationship between the informal loans and themselves. Examples of this would include profit and liabilities. These numbers are very important historically. For example, it is more important for the lenders to see average liabilities or profits five years back in time than just look at the numbers one year back. Since last year’s numbers can differ a lot depending on the prevailing circumstances.

It can also be that the variables tested in the blocks economic and risk don’t affect if the commercial state-owned banks lend out money or not. The banks may find these variables secondary to other more important variables. As a result they do not play a significant part since large risks and smaller profit do not force private firms to lend money from family and friends. For example private firms with poor profit turn to family and friends to borrow money because they have good political relations that open up doors for lending in banks. Something that speaks for this is that the commercial banks that are very influential of the government have a higher ratio of NPL. The NPL may not be created just from SOE, but also from the private firms. Another aspect can be that the banks do not have any good routines to thin out the private firms with poor economic and risk variables. The facts that the firms have different books and week trustworthiness dilute this problem even further.

The reason the relationship proxy is not significant may be because the Chinese bank system is not affected in the same way that other countries banks system are (relationship with the banks open up doors for access to capital). The reason for this can be the banks are still run by the government and its interests. The result here is that a good relationship with the banks is not sufficient enough to increase the chance for a bank loan and consequently the informal
lending increases. The private firms must have the right relationships and that is with the people that make the decision and in this case it is the people from the government not the bank.

The question is how meaningful these results are. When looking at the estimators in a group we must consider if the indicators show on weak numbers. In this model the Multiple R-Squared variance is 0, 04395 %. This number is low meaning that the model is not very accurate (the model has a low relative predictive power). Even more important are the adjusted r-squared (when both the numerator and the denominator are adjusted by their respective degrees of freedom) value that are even lower with only a value of 0.02099 %. Normally this value should be at least 10 % to get reliable and trustworthy results.

To see if the model was over specified a new model was created that cut out some of the variables in order to see if the explaining values could improve. The results are presented in the figure below.

**Figure 6. Percent of working capital financed by loans from family and friends**

| Coefficient                                      | Estimate | Pr(>|t|)     | Sig   |
|--------------------------------------------------|----------|-------------|-------|
| 1 Intercept                                      | 8.818e+00 | 1.75e-09 ***|       |
| 2 Party secretary                               | -3.288e+00 | 0.04331 *   |       |
| 3 Deputy party secretary                        | -2.876e+00 | 0.29847     |       |
| 4 Party member                                   | -3.953e-01 | 0.81006     |       |
| 5 Size of the Firms (Very large)                 | -4.137e+00 | 0.02291 *   |       |
| 6 Size of the Firms (Large)                      | -3.821e+00 | 0.04293 *   |       |
| 7 Size of the Firms (Medium)                     | -2.860e+00 | 0.21296     |       |
| 8 Size of the Firms (Micro)                      | 4.312e+00  | 0.08416     |       |
| 9 Government represented in the border (Yes)     | -4.352e+00 | 0.00209 **  |       |
| 10 Average no. of total employees 1 year ago    | -1.902e-04 | 0.69725     |       |
| 11 Net value of total fixed assets 1 year ago   | -1.984e-07 | 0.87002     |       |
| 12 Percent of net profits re-invested last year | 9.495e-04  | 0.87002     |       |

Number of observations 620, Multiple R-Squared 0.04472, Adjusted R-Squared 0, 02744, P-value 0,003211

**Source: World Bank Investment Climate Survey**

In the new model was following variables excluded: total liabilities 1 year ago, total profit 1 year ago and numbers of years the firm has business whit the bank. The results form the new model only change the multiple R-squared and adjusted R-Squared value marginally to
0.04472 respective 0.02744 (see figure 5). This means that the second model also has a low relative predictive power and is not much better than the first one. On the other hand, the second model strengthens the result from the firms on that the size aspect by making the political variables Party secretary and the both Size of the Firms (Very large) and (small) significant.

These different numbers presented above (multiple r-Squared and adjusted r-squared) suggest that the model in this paper did not work very well and that the results are weak. There can be several explanations for this. First, we must consider if the hypotheses of the model that this study tested may be wrong. All the different proxies (political, economic, relationship, size and risk) might not have an effect on if people borrow capital from family and friends. Secondly, it can be that the hypotheses are right, but the proxies chosen did not measure the different aspects they are supposed to quantify. Thirdly, we must question if the chosen econometric model might not be suited for this type of analysis. Perhaps better results would have shown up with a tobet regression model.
7 Conclusion
A very large part of a private firm’s capital in China is accumulated through informal channels. The lack of financing opportunities from the formal sector can hinder continuing development for private firms. Private firms have developed a lot over the last decade and if they do not continue to supply China with their development, China’s economic growth will be negatively impacted. The reasons for the large informal lending in China have for long been unclear.

This thesis was undertaken to try to find out and explain the key determinants of private firms that have to borrow money from family and friends. Different variables acting as proxies from political, economic, risk, relationship and size sector have been tested. Earlier studies in other countries in the world have shown that these different sectors have affected how much private firms have borrowed form the informal market.

The results of the paper have confirmed that political connections make a significant difference in the relationship between private firms having to borrow money from family and friends. This points to the fact that the lower degree of political connections a private firm has, the higher frequency of borrowing from family and friends. One example of these political connections is when the government is represented in the board of a firm. It should be mentioned that it seems that different connections in the political world leave different large marks on if the private firms borrow money from the informal sector.

Results also shows that size of the private firm is a factor that influences the outcome to what extent private firms borrow money from family and friends. It looks like the smaller the private firms are, the higher the frequency of loans from family and friends will be undertaken.

However this paper could not point at the higher risk, poorer economic, or more extensive relationship factors that influence the degree private firms borrow money form the informal sector. This is interesting since earlier research has pointed in the opposite direction. The explanations for this can be varied to include everything from the model in this paper was wrongly constructed to that these factors virtually do not have any relationship with informal lending in the case of China.
It should also be mentioned that the weak multiple r-squared value and adjusted r-squared value interpret that my pr values can be distorted which would mean that my result could be weak.

To sum up, it seems that the reason that China's private firms lend so much money from the informal sector doesn't depend (in many cases) on the same reasons as that in other countries. Yet, it can be established that one of the major reasons why private firms turn to the informal sector is the lack of political connections. The reforms to a more market-oriented economy that China has gone through haven't had that large impact on the society and its way to becoming independent of the government. It is most important that this market forces decides the rules of the game. If this happens more private firms will be able to lend money from the formal sector and expand. This will lead to that private enterprises will continue to play a large role for the continuing economic growth.
8 References

Articles


Law of the People’s Republic of China on Commercial Banks, Adopted at the 13ht meting of the standing committee of the eighth national people’s congress on May 10, 1995.


Tsai, Kelle, “Beyond banks: The local logic of informal finance and private sector development in China”, (Sep 2001).


Literature


Westerlund Joakim, (2005) ”Introduktion till ekonometri, Studentlitteratur”.

Electronic sources


9 Appendix

Dummies

- Government represented in the board

  \[ \text{DummyByCondition(mm7d=='Yes')} \]

- Size

  \[ \text{DummyByCondition(Size=='Micro')} \]
  \[ \text{DummyByCondition(Size=='Small')} \]
  \[ \text{DummyByCondition(Size=='Medium')} \]
  \[ \text{DummyByCondition(Size=='Large')} \]
  \[ \text{DummyByCondition(Size=='Very large')} \]

- General Manager’s Position in the Party

  \[ \text{DummyByCondition(mm4=='Party secretary')} \]
  \[ \text{DummyByCondition(mm4=='Deputy party secretary')} \]
  \[ \text{DummyByCondition(mm4=='Party committee member or executive member')} \]
  \[ \text{DummyByCondition(mm4=='Party member')} \]

Category of the variable size:

<table>
<thead>
<tr>
<th>Size</th>
<th>Permanent equivalent of total employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>less the 10</td>
</tr>
<tr>
<td>Small</td>
<td>More or equal to 10 but less then 50</td>
</tr>
<tr>
<td>Medium</td>
<td>More or equal to 50 but less then 100</td>
</tr>
<tr>
<td>Large</td>
<td>More or equal to 100 but less then 250</td>
</tr>
<tr>
<td>Very Large</td>
<td>More or equal to 250</td>
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