

I. Introduction

In this dissertation I am going to discuss two important features of emerging markets that have a great impact on corporate finance: namely, property rights protection and political connections. The reason I focus on these two issues is because of their intensity and extent. Firstly, these two features are among the most widespread problems across emerging markets. A glance at the latest Property Rights Protection Index published by the Property Rights Alliance reveals that the majority of emerging market countries are associated with weak property rights protection. Faccio (2006) documented that political connections between firms and the government exist for 35 out of 47 of the countries he sampled, equal to 74%. More importantly, these two issues have a great impact on the investment and financial behavior of corporations. For instance, Field (2005), among others, finds that when property rights protection was strengthened in Peru, there was a 66% percent increase in household investment. Meanwhile, Hsieh and Klenow (2009) noted that in China and India, the two largest emerging markets, any potential measures to correct financial resource misallocation would probably lead to a substantial increase in the total output, at around 2%-3% per annum.

Property rights protection has long been proposed as a major determinant of investment and economic growth (Smith, 1976). The difficulty associated with empirically establishing the causality between rights protection and investment is an endogeneity problem: namely, the strengthening of property rights protection and investment cannot be assumed to have a causal relationship in which the former brings about the later. The causation can go either way. It is possible that the two effects both come from a third, omitted variable in this case, technological improvements. Moreover, it is not completely impossible that the investment may also bring about property rights protection (Besley, 1995). I make attempts to overcome this endogeneity issue by exploring some unique institutions in China, the largest emerging market in the world.

In this dissertation I employ two different institutional set-ups to tackle the endogeneity issue between property rights protection and investment: a natural experience and an instrumental variable. In the first paper, I use natural experiments that occurred in Shenzhen as an instrument to disentangle the causation connecting property rights and investment from other causes. On November 13, 2009, the Shenzhen government announced that it would grant land titles to all land

users of previously untitled, allocated land. In essence, this natural experience was an exogenous strengthening of the property rights protection of certain firms with allocated land (a treatment group), while it did not impact other firms (a control group). I argue that this strengthening is exogenous for the following two reasons: firstly, it has nothing to do with the investment opportunities of those firms, because it is just a by-product of a policy that has few economic intentions. Secondly, there is no selection bias in regard to the treatment or the control group. The separation between the treatment group and the control group was mainly determined by a policy that was implemented ten years ago and it is not likely to be related to the current investment opportunities.

I use the difference-in-difference methodology to study both the stock market reaction and the real effect of that strengthening of property rights protection. I find a 7.8% increase in stock prices in the two following trading days, and a 63% increase in the following three years. To further consolidate my results, I find that there are differing effects on the market reaction. Those firms that are subject to a higher risk of being expropriated are associated with a large increase in both stock market price and real investment. This result is not likely to be caused by the difference in the unobserved characteristics between the treatment and control groups. I explore the time series heterogeneity and find that those firms that are mostly likely to behave differently from each other because of a large gap in their listing year, are actually demonstrating similar market reactions.

However, there are two main limitations in respect of the first paper. Firstly, its sample is relatively small, with the total number of firms amounting to 83. Although focusing on one single event is helpful when seeking to understand the institutional background and to avoid potential contamination from the unrelated events, the downside of a small sample is the partial loss of statistical significance. The second problem is that I only utilize the listed firms in the first study, mainly because the identification strategy requires detailed information about each firm, and this information can only be found for listed companies. The compromise, therefore, is between rich information and less representativeness. The listed firms are large in scale and are granted various forms of favourable treatment, including much better access to financial markets, compared with numerous unlisted firms. A study of listed firms, despite the contribution to the theoretical literature, can hardly reflect the financial constraints faced by mostly small-scaled unlisted firms.

I solve these two problems in the second paper. In this paper I utilized a dataset consisting of 5,000 unlisted firms from 300 cities in China. The total firm-year observations amounted to 26,000.

The main contribution in that paper, apart from the larger sample size, is that I manage to find an instrumental variable by which to identify the causation connecting property rights protection with investment. This instrument is the replacement of city mayors. City mayors, due to their administrative resources, political connections and incentives to promote local GDP, play a pivotal role in lobbying for a higher amount of title supply, which is mainly controlled by higher levels of government via a quota system. However, the efforts of the city mayor will inevitably be interrupted if the mayor is replaced. As a result, the replacement of a city mayor is associated with a decrease inland title supply, or a slower growth of property rights protection in the local area. I demonstrate that, for a city with a mayoral replacement, its land supply decreases by 20% in year in which replacement takes place.

As an instrumental variable, the replacement of city mayors has to be proven to satisfy the exclusive restriction. That is, the city mayoral replacement must not be correlated with the economic activities in any way other than through land titles. I made several attempts to eliminate the possibility of this connection. Firstly, I demonstrate that the decision to replace a mayor is mainly a political one, rather than an economic one, meaning that the old mayor is not replaced because of poor performance in the local area. Secondly, I illustrate that in general the new mayors are not systematically anti-business, nor has there been increased political uncertainty associated with the replacement that could decrease investment. Thirdly, other channels that could relate the mayoral replacement to the investment decrease are not likely to exist. For instance, the two main public policy indicators, taxation and fiscal expenditure, do not change much, as they do not hinge on the political connections and the personal efforts of city mayors, as the land quota does.

Using the replacement of city mayors as an instrumental variable and a dataset of 5,000 private unlisted companies in China, I detect a substantial investment-promoting effect of property rights protection. For each dollar invested in purchasing land titles, there is a 1.05 dollar extra investment in the next year and a four dollar extra investment in the following four years. This result is substantial as it indicates that land-related investment accounted for 47% of the average GDP growth in China in the post-crisis period between 2008 and 2011.

The second topic of this dissertation is the impact of political connections in distorting the allocation of financial resources. The fact that politically-connected firms have better access to bank and market finance is well-established in the literature (Fisman, 2001, Khwaja and Mian,

2005, Dinc, 2005, Li, Meng and Zhang , 2006). In the third part of this dissertation, I focus on a feature of political connections that is largely ignored by the literature: the cyclicity of those connections. In particular, I am interested in how politically-connected firms perform compare with the unconnected ones during a period of monetary contraction. This question is important as it help us to differentiate two competing hypotheses regarding political connections: namely, are political connections a form of insurance provided by the government to the connected firms, which hedge the latter from any macroeconomic fluctuation, or are they a risk-sharing mechanism that leads to a larger exposure on the part of connected firms?As political connection is usually associated with financial resource misallocation, the cyclicity (counter-cyclicity) suggests a smaller (larger) distortion during the monetary contracting period.

In order to detect the cyclicity of political connections, two institutional set-ups are required. Firstly, there should be clearly-defined, stable and pre-existent political connections. These political connections are hard to find in most other countries as the closeness of political connections is inevitably affected by political cycles. I argue that the stable political connections that are required exist in China. This is because political connections in China are mainly determined by ultimate controllers and those controllers have rarely changed since the era of central planning. The difference in ultimate controllers provides me with a categorization that splits Chinese listed firms into three groups: state owned enterprises (SOEs) affiliated to the central government, which have the closest political connections, private firms with loosest connections, and, between the two, SOEs affiliated to local governments.

Another institutional set-up is that there should be an exogenous, unexpected and effective monetary shock. I argue that the monetary instrument of the Peoples Bank of China (PBoC), changes in the reserve requirements, offer an ideal case study. The reserve requirement is the portion of the deposits of commercial banks that is required to be parked in the vault of the central bank. An increase in the reserve requirement would decrease the scale of loanable assets and thus decrease the total monetary supply. This policy is exogenous to the investment opportunities of firms as it is mainly targeted at curbing the inflation rate. Moreover, the effects of the reserve requirements are usually intense. For instance, each increase of 0.5% of the reserve requirement is expected to decrease the monetary supply by 350-400 billion RMB or 59-67 billion USD. That is almost double the scale of the peak-level of open market operations.

I find an extra negative stock market reaction of those politically-connected firms when the news of monetary contraction is announced. For each increase of 0.5% in the reserve requirement, there is a 0.34% additional negative cumulated abnormal return for a period of $[-4,1]$ around the announcement. This difference in effects is most likely to be brought about by the unexpected factor of the announcement as I find that those announcements that are less predicted by the market are associated with a larger extra drop in the price of connected firms compared with the unanticipated events. My results suggest the cyclicity of the political connections: namely, that those with political connections are hit more severely during the monetary contraction period.

I also find that there is a “bank-lending channel” that conveys the different effects to connected/unconnected firms. Namely, banks are disproportionately reluctant to lend to politically-connected firms. This reluctance could be for two reasons: either politically-connected firms are more likely to default during the monetary contracting period, or the government is less likely to bail them out. I find evidence for both, as those firms associated with the worst corporate governance, riskier loans and that are located in a city where the government has poor fiscal conditions, experience sharper decreases. Other channels, such as the collateral channel, and changes of investment opportunities, are not likely to be the drivers of my result.

II. Analysis of Non-landholding Firms

A. *The Effect of Property Rights Protection on Investment*

There are two main identification methods that are employed to establish the causation between property rights protection and investment: the difference-in-difference analysis of a natural experiment and the instrumental variable method. As part of a large and diverse literature (Field and Torero, 2006; Feder, Chalamwong, Onchan and Hongladarom, 1988; Carter and Olinton, 2003; Dower and Potamintes, 2005; Deininger and Jin, 2009; Deininger, Ali and Alemu, 2011), Field (2005; 2007) explores the natural experiment of an urban squatter land entitlement scheme that was implemented in Peru in 2004 and finds a significant enhancement in investment and in the labor supply in the formal sector. Galiali and Schargrodsky (2010) find results of a similar scale using Argentinian survey data. As their papers mainly focus on the changes of behaviours in squatting households living in slums, their results leave open the question of what the response of firms

operating in a relatively developed environment would be. In this vein, I see my first paper as being a complement to, and an extension of, their work in detecting the causal link between property rights and investment in a more entrepreneurial world. Another advantage of exploring the data of listed firms has been that I have been able to see the daily stock market price of the firms being analysed. The instantaneous, positive and significant market reaction to the announcement of the title-granting scheme gives the argument presented in this paper more credibility in its assertion that value was released by this particular change in policy.

The instrumental variables method (Hornback, 2010; Jacoby, Li and Rozelle, 2002; Acemoglu and Johnson, 2005) is another popular method that is widely applied in order to establish a causal relationship between property rights protection and investment. The most influential work in this literature is by Acemoglu, Johnson and Robinson (2001), who use the fatality rate in colonized countries as an instrument of the strength of property rights protection to detect its impact on the long-term growth rate. The idea is that a colonist in an area with a high fatality rate is less likely to introduce the institution of property rights protection, in light of their expectation of a short stay and a swift retreat from the area. The authors argue that the fatality rate is not likely to affect the long-term growth rate in any other ways. The fatality rate, therefore, is an exogenous variable of economic growth. One similarity shared by the aforementioned papers is that they focus on the behavior of households in underdeveloped rural areas where formal institutions and infrastructure are in short supply. One similarity of my second paper with my first paper is that it extends the existing literature as it investigates the behavior of industrial firms rather than households. This is a worthwhile area of research, as there is no reason to believe that the investment decisions of large-scale, profit-driven enterprises should display a similar pattern to those of households and, given their scale, the former should have much larger economic and welfare implications.

In their exploration of the effects of property rights protection in the urban area, my two papers are close to Johnson, McMillan and Woodruff (2002) (JMW hereafter), who utilize survey data of industrial firms in post-Soviet countries to explore the effects of property rights security on firms' investment behavior. One salient feature of JMW is that the authors attempt to differentiate the impact of the security channel and collateral channel and find that the security channel is more likely to be the binding constraint in post-Soviet countries. The result of my first paper echoes their result as I also find that for large firms for which financial constraints are more relaxed (Deng,

Gyourko & Wu, 2013) perceived security usually determines investment behavior. However, this conclusion cannot be conveniently generalized to smaller, unlisted private firms in China, who are more likely be vulnerable to financial constraints and the negative impact of a lack of property rights protection through the collateral channel, as found by Cull and Xu (2005).

My paper also contributes to the dispute about the lawfinancegrowth nexus in the Chinese context. Allan, Qian and Qian (2005) demonstrate that Chinese firms are outliers, as they are growing fast despite the hardship caused by the undesirable institutional environment, indicating that informal institutions, such as reputation, work well in China as substitutes for formal institutions. This "China receptionist" argument is disproved by Ayyagari et al (2010), who illustrate that the formal institution is more efficient, as firms that obtain loans from Chinese bank loans are associated with a higher growth rate. This debate is critical for institutional economics as it sheds light on the relative efficiency of formal institutions compared to informal institutions (Williamson, 1999). The results in this paper are more in line with Ayyagari et al (2010). I emphasize the important role played by the formal institution in promoting investment and economic growth. I also extend the idea of Ayyagari et al (2010), as they treat whether the firms can provide sufficient collateral as an exogenous variable that determines corporate growth. However, I endogenize this variable and show that the availability of collateral is determined by the local entitled land supply, which will ultimately decide firms' growth rates.

B. The Cyclicalty of Political Connections

My third paper contributes to the literature in the following three directions. Firstly, my paper enriches the literature on political connections by describing the cyclical nature of such connections. As far as I am aware, this is the first paper to discuss the cyclical nature of the political connection of firms. The closest paper to my own in this regard is the work of Johnson and Mitton (2003). In that paper, the co-authors analysed the performance of politically-connected firms in Malaysia during the early stage of the Asian financial crisis, and found that in an adverse economic environment, those politicallyconnected companies experienced an additional downturn compared to unconnected firms. The co-authors conclude that this decrease in the value of politically-connected firms results from the expectation of a decrease in government subsidies. My paper deviates from their paper in two ways. Firstly, my paper extends their paper by pinning down the specific channel through which

the subsidies are provided. Secondly, there is a difference in the driving force behind the decrease in stock prices. While the reason for the change in market expectations in Malaysia in the early stages of the financial crisis was mainly due to the concerns of the promised reform of the government in exchange for foreign aid, in my paper the reasons why the banks changed their lending policy was because of their concerns regarding bad loans. My paper is also related to Deng, Morck, Wu and Yeung (2015), who documented the cyclical nature of SOEs in promoting Chinese GDP, in terms that those SOEs increased investment during a period of monetary expansion. However, in this paper I interpret the bank-lending channel as being a rational activity of commercial banks, instead of being totally driven by administrative orders, which provides me with greater room to test all of the related hypotheses. My paper is also related to Brandt, Tombe and Zhu (2013), who investigated the change of factor market distortion over time and found that these distortions, after initially decreasing in the 1990s, displayed tremendous increases in the 2000s. My paper shares their perspective that the factor market distortion created by political connection is non-constant and I extend their argument by linking the change in the factor market reaction with the business cycle.

My paper also sheds light on the literature regarding bank regulation during various business cycles. Scholars and regulators are more concerned about bank lending during boom rather than bust periods, with much evidence illustrating that banks in boom years employ more lenient criteria for lending (Caruana, 2002; Ferguson, 2004; Jimenez and Saurina, 2006). My paper adds to this literature by reiterating the cyclical nature of bank loans. My paper complements the literature by describing a new channel that may amplify the already-existing credit cycles. Due to concerns that politically-connected firms are more likely to make a loss, either because they are more likely to go bust or because the government is less likely to bail them out when they go bust, commercial banks cut loans to a higher extent for politically-connected firms.

This paper also refers to the literature on the effect of monetary policy on the stock market and the real economy. A large body of literature addresses the issue of measuring the precise stock market reaction to changes of monetary policy (Bernanke and Kuttner, 2005; Rigobon and Sack, 2004; Kuttner, 2001). Many methods, especially using the future market rate, have been proposed to capture the unanticipated factor of policy announcement, and to simultaneously overcome the endogeneity problem. My paper, with the similar intention of measuring the unanticipated effects of monetary policy change, deviates from the literature in the following two ways. Firstly, the main

aim of this study is to identify the differential effects across firms, instead of the universal effect of all firms. Secondly, without future market data, I use both institutional information (the CPI announcement) and other available information in the stock market (the stock reaction in relation to banks) to measure the unanticipated effect of the reserve requirement increases.

III. Conclusion

In this dissertation I investigate two important factors that may affect corporate finance in China: property rights protection and political connections. However, these do not give the whole picture as there are further factors that also contribute to financial constraints, and there are many unintended consequences. In this section, I would like to list a few other projects that I have been working on which attempt to address the issue of financial constraints in emerging markets from different perspectives.

Another cause of SMEs financial constraints, apart from weak property rights protection and lack of political connections, is the weak bankruptcy code. A weak bankruptcy code, which does not emphasize the protection of creditors rights, would lead to creditors cutting credit due to fears of legal uncertainty. I use a unique dataset of 516 default cases of small-and-medium firms to study the implementation of the bankruptcy code in China. I find that for half of the cases, the bankruptcy procedures, especially the liquidation procedures, are blocked by the participants, who enjoy seniority over creditors. Those participants include tenants, first-seized creditors or public prosecutors who bring criminal charges against the debtor. The recovery rate of cases with senior participants is 21% lower than the average level. The absence of asset registration also plays a role: the recovery rate of secured loans is 36% higher than for unsecured loans.

The extensive financial constraints faced by SMEs are not the only negative consequences of the over-regulated banking sector. The constrained Chinese financial sector has no other option but to send the capital abroad, causing a current-account surplus in China and a depressed international interest rate. This suggests that the negative impact could spill over from the domestic credit market into the international foreign exchange market, causing international trade imbalances. In a joint work with my supervisor, Oren Sussman, we apply the old concept of financial repression, originally from McKinnon (1973) and Shaw (1973), to the Chinese financial system, in order to explore a potential explanation for Chinas foreign-trade imbalances. In a two-country model, we show that financial repression in one country (China), equivalent to a tax on domestic investment, drives capital out and awards its trading partner (the US) a tax-arbitrage opportunity that is used to fund a permanent current-account deficit. In contrast with the common view, this intervention decreases wages, employment and welfare in the financially repressed country.

Another economic consequence, apart from the domestic capital outflow, is the arbitrage-motivated inflow of foreign capital. That inflow could be hidden in the current account, so as to bypass the capital account regulation applied by the Chinese government. In another work, I utilize a large database of all the import/export items from Chinese customs. I find that during a period when there is a high rate of return from Chinese domestic assets, mainly due to the appreciation of RMB, the exchange for which was allowed to fluctuate, there is an abnormal increase in the amount of certain export goods, especially gold and electronics. All the items share some similar features: they are small in volume and high in value. I argue that these abnormal export increases serve the purpose of facilitating capital inflow and hiding that inflow in current accounts.

Notes

¹Besley (1995) provides an interesting case in which peasants in Ghana invest in growing trees in order to protect their property rights to certain plots of land.

²Potentially, a third channel, the transaction channel, through which land with property rights is easier to sell at market price, also contributes to investment, although in my setting the effect of this channel is marginal, mainly because the ban on sale is hardly enforced and the pre-event transaction of the allocated land is pervasive.

³The main target of the title-granting scheme is to give titles for the squatter-occupied land, which accounts for a larger area in Shenzhen than allocated land.

⁴See Besley (1995), Acemoglu, Johnson, Robinson (2002), Jacoby, Li and Rozelle (2002), Field (2005, 2007), Goldstein and Udry (2008), and Galiali and Schargrodsky (2010). And see Besley and Ghatak (2009) for a good survey.

⁵Another form of unentitled land, squatted land in Shenzhen, also accounts for a large portion of land in Shenzhen. However it is irrelevant to our study.

⁶Data from Wang, Chen and Chen (2012), “some tips from Shenzhen City Renewal Program for western area”, research on development, 05, 2012

⁷“Interim Regulations of the People’s Republic of China Concerning the Assignment and Transfer of the Right to the Use of the State-owned Land in the Urban Areas”, article 47 stipulates that the government has the authority to take back the allocated land without any compensation.

⁸In 2004, the Shenzhen government released the “Provisions of Shenzhen government on Real Estate expired land renewal” that specified the renewal fee for the land that expires. However no owner of the expired land actually handed in the renewal fee for land renewal.

⁹Provisional Regulations of Land Management for Shenzhen Special Economic Zone, 1981

¹⁰See Huaxia News, 16 March, 2013.

¹¹Under a 50-year lease contract, the current land user leases out the land to the buyer who pays all rental fees in a lump-sum.

¹²Interview Kaihong Li, the participants in Shenzhen urban planning, by Nanfang weekend. The problem of absence of registration is most severe for allocated land used by small-scaled firms. For the large-scaled firms that appear in the analysis of this paper, as the information of their allocated

landholding is public information, this problem is not fatal

¹³Some requirements have to be met by the land user for obtaining the approval of government. Those requirements include: 1) the land owner should hand in a proposal for renovation of the buildings above the land, and it has to be approved by the government. 2) about 15% of the total area of the land should be handed to the government for public use.

¹⁴Other measures, including a policy that promoted voluntary user right registration and granting the land user transaction rights launched in 2004, all ended with failures.

¹⁵On May 31, 2010, the boundary of Shenzhen was extended for the first time since its establishment in 1981. Its total area increased from 995 square kilometers to 1,948 square kilometers.

¹⁶That is, the land user receives 60% of the value of the land when it is converted into entitled land.

¹⁷The first non-SOE firms, New Hope Group, were listed in 1998.

¹⁸See Regulations on Stock Listing in Shenzhen Stock Exchange.

¹⁹Procedures regarding property issues in SOE reforms/reorganizations in Shenzhen, 11 January 2001. Shenzhen Government.

²⁰Notice that the established year for SOEs may not be the year during which the firm is founded; it may be the year when the firm was reformed from its pre-existing, outdated, centrally planned predecessor.

²¹On 13th Nov, 2009, the news that a title-granting scheme was about to be launched appeared in some local newspapers in Shenzhen. However due to the limited influence and lack of credential of those papers, the news was ignored by the public until the government made an official announcement in a press conference on 25th November.

²²The first round information was released on 13th Nov, 2009 by local news papers. However due to the adverse track record of these newspapers in disclosing reliable information, the information they released does not cause much market reaction.

²³“Provisional regulation of Shenzhen land administration”, Shenzhen government, 1981

²⁴The risk of expropriation by other private citizens is also lower for those Shenzhen-connected firms. That is because the Shenzhen court, the arbiter of the land rights dispute, is under the control of Shenzhen government

²⁵One famous example is that Chinese central bank release sequential policy changes, including

downward adjustments of reserve required rate, with a frequency of one adjustment per month for seven consecutive months, between December 2010 and July 2011, in order to promote GDP growth.

²⁶There are many other measures regarding financial constraints, such as Almeida et al. (2004) and Lamont et al. (2001). However almost all of those measures include the value of the dividend payment. Chinese firms are notorious for not paying dividends, not because of financial constraint, but because the poor corporate governance. See Faccio et al. (2001) As a result, all above measures are noisy in that they have a tendency to measure corporate governance on top of financial constraints.

²⁷The increase of land supply derives mainly from the previously squatted land by farmers in Shenzhen. The City Renewal Program allows those farmer squatters, once the titles are obtained, to sell the land to firms at any negotiated price.

²⁸Qian and Weingast (1997) demonstrate that local governments are competing with each other for investment from foreign or large-scale domestic firms. As a result, larger firms are more likely to receive titles from a local government that has an incentive to use land as a stimulus to promote local GDP. Similarly, firms with political connections are also regarded as main recipients of the land as the local government is the sole land distributor in China.