The Chinese Financial System
An Introduction and Overview

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I. Introduction

The financial system plays a critical role in fueling the expansion of China, which has grown to be the second largest economy in the world and is likely to eventually surpass the US. Yet there is much less understanding of China's financial system than there is of America's or Europe's. Many analysts believe that the financial system represents a major vulnerability for China's economic development, whereas others, equally respected, think that the financial system is adapting effectively to China's more developed status and will continue to provide the necessary fuel for the rest of the economy.

This paper provides an overview of China's financial system and details what we know and what we do not know about its workings. We begin with an overview and then structure the remainder of the paper around a series of questions and answers.

Financial systems can be organized in multiple ways that differ in terms of the role of the government, the relative importance of banks and other financial intermediaries compared to stock and bond markets, the degree of financial leverage in the economy, and other differences. The optimal financial system for a given nation depends on its stage of development, its particular social values, its political system, and various idiosyncratic factors. This paper will frequently compare China to the US, not because China should necessarily copy the US approaches, but principally to help our American readers put China in context. Some of the differences between China and the US will disappear over time as China's economy becomes bigger and more sophisticated, and as the financial system adapts to a level of development more similar to the US. Other differences will remain because of policy or societal choices or inherent differences between the two nations.

Despite the variations across countries, all financial systems need to perform a few key functions effectively. Ideally, they optimize the allocation of scarce funds to the most worthy projects, allow savers and investors to maximize their return for a given level of risk, allow risks to be diversified across a wide pool of families and businesses (to reduce the danger from catastrophic losses), and help transform shorter-term assets into funds that can support longer-term projects.

China's financial system has managed for several decades to perform well enough to support the very rapid economic growth of that nation. One can argue about whether alternative approaches would have worked better, but, at a minimum, it represents a real accomplishment to have avoided acting as an anchor preventing the impressive growth that China has achieved.

However, China is once again entering a new phase of its economic development, and doing so at a time of major political change, with the coming to power of a new leadership team at the helm of the Chinese Communist Party and the central

government. How the leaders of the party, government, and business sector manage the transition over the next few years will have important ramifications not only for China's future, but that of the world. The financial system will play a major role in the future successes and failures of that economic transition.

China's financial system is particularly hard to analyze because it is highly opaque and evolving rapidly. Every decade sees major changes in the regulation, structure, and operation of finance in China, consistent with the rapid changes in the nation's overall economic and political development. Only a few decades ago the private financial sector virtually did not exist and all banking was done through branches of the state-owned People's Bank of China.

In consequence of this opacity and continuing evolution, there are questions about the strength of the financial system, its effectiveness at allocating capital to maximize China's growth, and the impact of capital allocation on the shape of the economy (including the relative size of the government and private sectors). Moreover, the likely overall effects of future economic reforms, such as loosened capital controls and freer exchange rates, remain unclear.

A factor encouraging opacity is that China's national, regional, and local governments play a much bigger role in directing the activities of banks and other financial intermediaries than in America or Europe. To some extent, the banks make loans as a substitute for fiscal actions that would otherwise need to be taken, as was clearly shown in the use of the banking system to provide the bulk of the economic stimulus after the global financial crisis struck in 2008. The use of the banking system for government purposes increases opacity in at least two ways. Government leaders often wish to obscure their interventions into the financial system, making that system harder to understand. The interventions also lead non-government participants to seek ways around governmental policy. For example, direct controls on the total amount of lending by banks can be circumvented to some extent by shifting loans onto the books of trust companies and their asset management customers, with an implicit guarantee by the bank. This creates incentives for Chinese banks to obscure the continuing financial risks associated with those loans, comparable to the reliance in the West on Structured Investment Vehicles (SIVs), whose blow-up contributed to the financial crisis.

In addition, there are a wide variety of implicit guarantees embedded in the financial system. These represent assumed support by the central government for the borrowings of state-owned enterprises, support for state-owned banks, implicit deposit guarantees (since there is currently no formal protection of deposits), the assumption by many investors that banks or trusts will cover losses on wealth management products, etc. Implicit support is more opaque, easier to misunderstand, and riskier, than more formal arrangements.

The leading role of the Chinese Communist Party is enshrined in the Constitution and is very much evident across all sectors of the economy, especially banking. Party leaders at the national, provincial, and local levels have many channels through which they exert influence on finance, including the ability to determine the career paths of leading executives at financial institutions. As a result, one of the areas of major debate among analysts is the extent to which the major banks make "commercial" decisions, as opposed to responding to political influence.

As in many developing countries, problems with the structure of the formal financial sector have encouraged many informal channels for lending. There is a strong tendency of the formal sector to lend to large state-owned corporations and to others with political connections, leaving smaller and less favored businesses struggling to fund their growth. This situation results in high demand for otherwise riskier and more

expensive informal lending channels. The informal sector is less regulated, and sometimes illegal, so information on this important sector is much less readily available.

Summary

Banks dominate the Chinese financial system, providing about three fifths of total credit to the private sector.[1] This is not too different from European levels, but contrasts with the US system, where financial markets and non-bank lenders provide significantly more credit than banks. The Chinese banking system is fairly concentrated, with five banks splitting almost half the total loan market,[2] which is somewhat less concentrated than many national markets in Europe but more concentrated than in the US.

A major difference with more developed financial systems, however, is the high level of state ownership and control. The five largest Chinese banks are majority-owned by the central government and there are significant government stakes in many of the other banks. Further, the government intervenes far more actively in banking decisions than in the West. Most important, the central bank explicitly sets maximum interest rates for deposits and minimum interest rates for loans, and often sets target levels for loan volumes.

Government and party leaders can exert considerable influence behind the scenes, often pushing loans to particular firms, sectors, or regions to further their political agendas. The close linkages between the government and banking, as well as the pervasive power of the Communist Party, make this possible. Unlike in the West, the careers of the most important bankers are determined by the Party and many of them move in and out of the banking sector along the course of their careers.

The big banks lend principally to large, state-owned enterprises (SOE's), although the proportion has declined substantially in recent years. One of the great outstanding questions is why this occurs and how it might change in the future. There are at least five broad reasons for this lending bias, some of which also apply in Western markets.

Strong business positions. Some of the major borrowers are simply very good credit risks because of their strong business positions, resulting from monopolistic or oligopolistic power, superior business models, or other factors. (In recent years, firms with majority state ownership reportedly represented 35% of business activity in China, but earned 43% of the profits.[3]) Firms may also have grown large *because* of their strengths. Further, size can bring a degree of diversification that in its own right reduces credit risk and makes them more attractive borrowers. In all of these cases, there is no particular mystery as to why these SOE's would be favored customers.

Implicit government guarantees. There is a widely held perception that the government would not let a large state-owned enterprise formally default on their loans. This implicit guarantee is potentially of great value, although it does not preclude the lender suffering economic losses by being forced to accept modifications to the loan terms that fall short of default. There are also degrees in the strength of these implicit guarantees. For example, SOE's that are owned, or controlled in practice, by powerful central ministries have a greater certainty of support than entities owned by less powerful government bodies.

Career safety. The large state-owned banks are now sufficiently commercial in their outlooks that loan officers do risk their jobs if their borrowers default. However, there is a clear perception that lending to a large SOE will never be a career-ending decision, whereas lending to private borrowers could be.

Personal relationships. Senior officials at large SOE's are in a position to favor bank officers, including through their Party influence, and there

will often be social relationships as well, such as school connections.

Direct government or Party influence. Sometimes an influential official will strongly urge a loan to be made, essentially circumventing normal credit procedures. This is apparently less common than in the past, and there is more likelihood of resistance, but it certainly still occurs today to an extent that is hard to quantify. One reason it is hard to measure is because there are legal limits on how strongly one can push a loan officer to make a specific loan, intended precisely to reduce the extent to which such pressure is exerted.

Government and party leaders have recognized that it is too easy for large SOE's to acquire loans and too hard for many smaller, purely private firms to compete. As a result, leaders are encouraging the banking sector to lend more to smaller firms and have also become more open to other avenues of credit provision, such as the informal sector. One of the analytical debates about China is the extent to which the large banks will be able to change their behavior toward smaller firms. On the one hand, China's leaders have proven adept over the years at generating the changes that they wish to see. On the other hand, it is not clear that the key incentives described above will change. Some analysts also believe that the big banks simply do not have the culture and systems necessary to lend successfully to small, private firms.

There is also much analytical debate about the sources of bank profit. Pessimists contend that the large banks are fat and happy, benefitting from a combination of a ceiling on interest rates for deposits, (their main source of funding), and credit quotas set by the Chinese central bank, which allow banks to charge higher lending rates for those loans they do make. These government interest rates and credit quotas are becoming increasingly flexible, and may even disappear, over time. Even now, they can be circumvented in various ways, such as through the use of certain "wealth management" products that are deposit-like, but pay higher rates. If the pessimists are right, banks could have serious problems as their net interest margins become squeezed. This could lead them, like some Savings & Loans in the US in the 1970s and 1980s, to take unreasonable risks to restore an acceptable level of profitability. It could also lead to a slowdown in loan growth, as banks' internal capital generation slows and external capital sources find the banking industry less attractive.

Optimists believe the large banks will be considerably more flexible and intelligent in their responses, and that the government and Party will sensibly manage the process of change with an eye towards avoiding these potential problems.

Bond markets are another source of credit for companies, particularly larger firms. However, the Chinese corporate bond market is smaller and less sophisticated than in the US and Europe, and at present the banks are the largest holders of these corporate bonds. But, the corporate bond market is growing rapidly. Net issuance of corporate bonds increased by 65% in 2012, according to the PBOC's figures on the size of various components of finance, and now represents about 16% of net new credit.[4] In addition to serving as competition to the banks, and an alternative way for them to invest, the development of the corporate bond market may also take some pressure off the banks to act as a quasi-fiscal arm of the government.

Chinese stock markets provide another source of funding for businesses. However, there are several problems that hold these markets back from reaching their full potential. First, the markets are dominated by speculators to a far greater extent than in Western nations. There are multiple reasons for this, the most fundamental of which is that Chinese law, regulation and governance patterns considerably constrain the control that shareholders can exercise over management. These problems are exacerbated for the many publicly traded firms where the government owns a majority stake. Lacking the ability to influence business choices and dividend levels, or to sell the

firm as a whole, shareowners place less reliance on underlying firm value and focus more on likely stock price movements in the short run. Many Chinese also attribute speculation to a national love of gambling, but it is very hard to know whether this stereotype applies and the extent to which it affects investment decisions.

Another factor contributing to the speculation, and holding back the stock markets in its own right, is the relative dearth of institutional investors, who may make more informed and reasoned decisions than individuals. Even if they were no more rational in their behavior, their absence reduces the potential size of the stock markets and therefore the ability to generate new capital through sales of stock by firms.

Chinese regulators also limit the size of the stock markets through very close control of Initial Public Offerings. Western nations generally allow a new issuance as long as appropriate documentation is provided to investors to allow them to make informed decisions, whereas China only allows an IPO to proceed with specific approval that takes into account, on an ad hoc basis, a wider range of considerations. Regulators apparently maintain informal quotas that hold down issuance volumes.

Other parts of the regulated financial system remain fairly undeveloped in China, although they are generally growing strongly from low levels. The insurance industry is about two-fifths of the size of the US market, relative to the size of its economy. The asset management industry is even smaller in relative terms at a mere fraction of American or European levels. Trust companies are an increasingly large part of the overall system, but the sector remains relatively smaller than the non-bank lending sector in the US.

In response to the gaps and rigidities in the formal financial system, China, in line with many developing countries, has a large and diverse informal financial sector. Lenders in this sector include loan sharks, pawn brokers, formal and informal cooperatives of locals lending to each other, State-Owned Enterprises (SOEs) re-lending out excess cash, and many other privately, (and sometimes secretly), raised funds that invest in start-ups. The informal sector has an uneasy relationship with the Chinese state and regulators.

Chinese officials are currently wrestling with how to harness the potential of this informal sector to provide funds to worthy borrowers neglected by the formal sector, while avoiding predatory behavior and excessive risk-taking by institutions and individuals that are less regulated. How effectively the government manages this balancing act will have a major impact on the financial system and wider economy in the years ahead.

There are two other debates about the financial sector that are significant enough to warrant noting here. First, many analysts are concerned that Chinese banks have large undeclared pools of bad loans, which may deteriorate further. The prime cause of the concern is the huge growth of lending that came out of China's massive stimulus program in response to the global financial crisis, which primarily consisted of bank-financed activities. It is true in any financial system that a large spurt in lending, for whatever reason it occurs, raises a real potential for the creation of bad loans. The better loans were presumably already being funded, so one would expect a decrease in average loan quality. In addition, a big jump in volume almost certainly comes with less careful underwriting, especially in a case such as the stimulus where there was strong pressure from the top to make loans if at all possible.

The sector of borrowers that is most concerning comprises local governments and parties related to them. The national government pushed localities to fund the substantial majority of new stimulus spending in their areas, which forced them to borrow large sums of money. It is clear that many of them overcommitted or invested in bad projects and will end up defaulting on their

loans unless they receive help from the national government or forbearance by lenders. This is a large-scale problem, with some analysts seeing it as substantially higher than the government and the banks currently admit. But even the more pessimistic estimates remain in a range where a rescue by the national government would be feasible without seriously compromising the strength of China's sovereign debt.

There are also concerns about loans to industries with over-capacity, such as shipbuilding and solar energy, and to small and medium-size enterprises that are squeezed by the weaker export environment.

Another key debate is the degree to which China will experience a real estate crisis and the resultant effects that would have on the banking system. The central government has concluded that real estate bubbles have built up in at least some sectors and geographic areas, and is taking explicit action to restrain real estate speculation. Pessimists fear that the problems are more extensive than admitted and that it will be impossible to successfully balance the twin goals of restraining bubble behavior while avoiding a crash of real estate prices, with attendant huge damage to the lenders and the economy. Optimists see the problems as both smaller and more capable of being managed by the leadership.

The real estate debate ties into a parallel debate on bad loans, since many of the loans to local governments and their affiliated parties are based either on real estate as collateral or on the ability of the governments to sell land in order to maintain an adequate flow of revenues.

There is an analytical debate in China on the level of implicit support given to various financial obligations by governments or financial institutions. Implicit government support of state-owned enterprises is a major factor allowing them to borrow so much at such a low cost. A similar logic, with somewhat more risk, applies to the local government financing vehicles that fund much of the nation's infrastructure investment. Many observers believe that banks and trusts implicitly back the loans they make that are packaged into wealth management products. Even deposits operate with an implicit guarantee and not an explicit one.

The widespread use of implicit support represents a serious risk to the Chinese financial system, because of the large volume of these contingent obligations and because their informal nature can easily lead to misunderstandings. Should a financial crisis begin somewhere in the nation's complex financial system, contagion could spread through a sudden loss of confidence in these implicit guarantees.

Overall, we tend towards guarded optimism on the points in debate, while conceding that the level of uncertainty about the current and future workings of the financial system make it impossible to be sure that the problems that inevitably arise will be worked through effectively. However, China has earned the right to a presumption that it will continue to find the way through its growth challenges, although both the Chinese leadership and outside observers need to watch carefully how things actually develop and not become complacent as a result of past successes.

In order to assist the reader in navigating the complexities of China's opaque financial system, the remainder of this paper is organized as a series of questions and answers. This is intended to provide a coherent conceptual framework while allowing the reader to easily jump from topic to topic, depending on interest. Please note that we attempt to show what is *not* known, as well as to lay out the facts and circumstances as we know them. Given the degree of opacity and uncertainty pervading this complex subject, it is important not to be lulled by a false sense of certainty, but instead to remain aware of what is unknown.

The questions that will be addressed are listed below:

Key Questions

Overview

- What is the overall structure of China's financial system?
- Who regulates the financial system?
- How does political influence on personnel appointments affect the large state-owned financial institutions?
- What are the accounting standards in China? How prevalent are accounting frauds in China?

Banking Sector

- What is the structure of the banking sector?
- How profitable is the banking sector in China?
- How are lending and deposit interest rates determined?
- How did the government reduce Non-Performing Loans?
- How did efficiency at the state-owned banks improve over the years?
- How do foreign exchange interventions affect China's banks?

Bond Market

- What is the state of development of the Chinese bond market?
- What is the structure of local government debt?
- How did the local governments raise money?
- What is the situation of rating agencies in China?

Stock Market

- What is the structure of the Chinese stock market?
- Why is the Chinese stock market so speculative?
- What is the regulatory framework for IPOs?
- What financial innovations have occurred in the Chinese stock markets?
- What are the ownership structures of the listed State-Owned Enterprises?

Other Financial Institutions

- How developed is China's asset management industry?
- What is the situation of the trust industry in China?
- What is the situation of the insurance industry in China?
- What is the situation of the Venture Capital and Private Equity industry in China?
- How open is China's financial system to foreign participation?

Informal Sector

- Why does China have an informal financial sector?
- What is the situation of the informal financial sector in China?

The Intersection of the Financial System and the Real Economy

- What is the financial market's role in China's real estate market?

Conclusions

II. Key Questions

Overviews

What is the overall structure of China's financial system?

Banks dominate the Chinese financial system, providing the private sector with credit amounting to about 128% of Gross Domestic Product (GDP) in 2012,[5] compared to 48% for the US.[6] The bond market, however, is under-developed, providing credit equivalent to approximately 41% of China's GDP,[7] compared to 243% in the US.[8] Chinese stock markets, for their part, had an aggregate market capitalization of about 44% of domestic GDP in 2012.[9] This contrasts with Western economies, where the stock market is typically smaller than the bond market.

Unfortunately, Chinese stock markets are often aptly compared to casinos, driven heavily by speculation rather than end-investment. For example, the average annual turnover rate in the Chinese stock markets over the past 5 years was 205%, reaching a recent high of 293%, compared to the US rate of 188%.[10] This high turnover rate is particularly striking given that large portions of Chinese shares are non-tradable, generally because they are owned by government entities. (The government has self-imposed restrictions on share sales in order to alleviate fears that their shares will flood the market, reducing prices.) When only negotiable shares are taken into account, the average turnover rate over the past five years increases to 341%, and in recent years the annual rate has been as high as 666%.[11] The market for initial public offerings (IPOs) is particularly prone to speculative excess, with participants bidding for many multiples of their desired allocation, and putting up the required deposits for that full amount, just in hopes of gaining at least a modest allocation.

Insurance companies are another under-developed part of the Chinese financial system, holding $1.2 trillion in assets, or just over 14% of GDP.[12] The scale of the insurance industry is thus relatively small compared to countries with more developed financial systems. For example, US insurers have over $4.8 trillion in total assets, amounting to over 30% of GDP.[13]

China's asset management industry is even less developed compared to the West, particularly compared to the prominent role played by mutual funds in America. Assets under management in China are equivalent to only about 5.1% of GDP, compared to 240% in the US.[14] However, China's asset management industry has been growing rapidly since emerging in the late 1990's, with the number of funds increasing markedly, and the total assets under management projected to rise to approximately 6.8 trillion RMB by 2015 (which would constitute over 10% of projected GDP).[15] (The "renminbi", or "people's currency", is abbreviated "RMB" and is sometimes also referred to as the "Yuan". It currently trades between 6.1 and 6.2 RMB to the US dollar.)

Capital Market (in trillion USD$)

Sector	Bank Credit	Stock	Fixed Income	Insurance	Asset Management Companies
Size (China):	10.7	3.7	3.4	1.2	0.4
Size (US):	7.6	18.7	38	4.8	36
% GDP (China):	128%	44%	41%	14%	5%
% GDP (US):	48%	118%	240%	32%	230%

Note: All values above computed for end of year 2012, except for the values for Chinese Bank Credit, which are up to date through Q1 2013.

The relative size of the different financial sectors and their respective ratio to GDP is summarized as follows:[16]

As in most countries, there are also a number of other types of financial intermediaries in the Chinese formal sector, such as trust companies, rural credit cooperatives, urban credit cooperatives, and several others. Most of them are regulated by the China Banking Regulatory Commission (CBRC), but under different rules than for banks. It is difficult to locate comprehensive data on the size of these other financial intermediaries, but they appear to have grown fairly quickly in recent years. For example, the assets owned by cooperative financial institutions grew from 5 trillion in 2007 to about 7.8 trillion RMB in 2010, amounting to 12% of all household deposits.[17]

In addition to formal financial institutions, China has a large and diverse informal lending sector that helps fill the gaps left by a formal sector excessively focused on funding state-owned enterprises and politically favored businesses. Lenders in this sector include loan sharks, pawn brokers, formal or informal cooperatives of locals lending to each other, State-Owned Enterprises (SOEs) relending out excess cash, and many other privately, and sometimes secretly, raised funds that invest in start-ups. The informal sector has an uneasy relationship with the Chinese state and regulators. Since 2002, the Ministry of Finance and the State Administration of Foreign Exchange has cracked down on over 500 underground banks, whose assets totaled more than 100 billion RMB.[18]

The Concept of "Total Social Financing"

The Chinese authorities generally report figures for the overall size and composition of their financial system in terms of a concept that they devised and which is unique to China. They report "Total Social Financing", which includes the following categories: bank loans, foreign currency loans, trust and entrusted loans, bank acceptance bills, corporate bond financing, nonfinancial enterprise equity financing, foreign direct investment, foreign debt, and other funding sources such as insurance, micro lending, and industry funds.

The concept is a broad measure of the nation's yearly flow of liquidity, described by officials as "indicating total funds the real economy obtained from the financial system over a certain period of time."

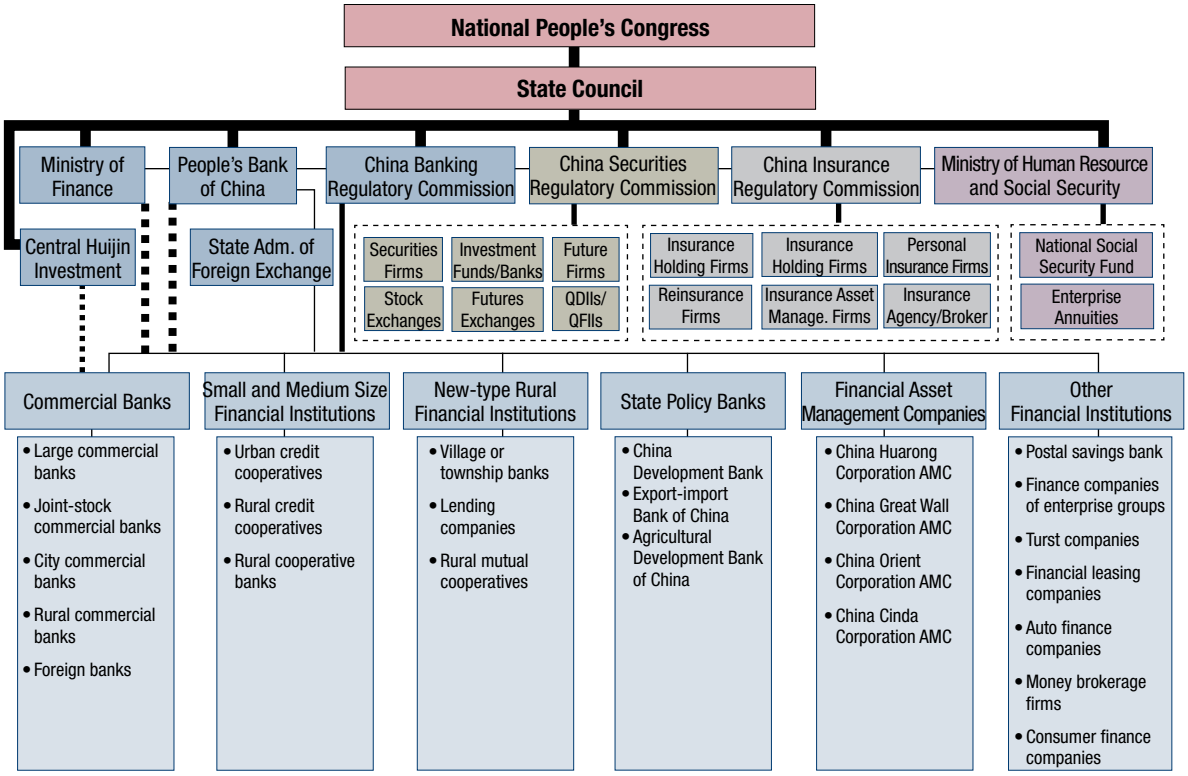
Total Social Financing aggregates the primary sources of credit with a number of non-credit items, such as equity and foreign direct investment. At the same time, it is not fully inclusive of all financing sources. As a result, it is not comparable to figures reported by other countries either for credit origination or for overall financing. This paper therefore generally does not report figures for Total Social Financing, but attempts to calculate figures that match the concepts that are used in other nations. For example, in order to determine the ratio of credit provided from bank loans, one must exclude financing equity and other sources that are not identifiable as credit from the Total Social Financing figure. "Bank acceptances," are also excluded in the adjusted calculation, as these represent bank credit, but are generally collateralized at least in part by an equivalent deposit at the same bank. Collateralization of this nature reduces the true credit risk taken by the bank.

Who regulates the financial system?

China's regulators are divided primarily by the broad types of activity they oversee, although, there are some overlaps and oddities, as is the case in most countries. Banks are regulated primarily by the China Banking Regulatory Commission (CBRC), securities and financial markets by the China Securities Regulatory Commission (CSRC), and insurance by the China Insurance Regulatory Commission (CIRC). The Chinese central bank, the People's Bank of China (PBOC), also has important regulatory responsibilities, in addition to managing monetary policy. It is in charge of drafting regulatory bills, regulating systemic risks, and managing financial stability. As is true for virtually all central banks, it can serve as a lender of last resort during a financial crisis. The PBOC also sets limits on deposit interest rates and lending interest rates. Further, it controls the State Administration of Foreign Exchange, which manages the exchange rate. However, both the exchange rate and the interest rate limits are largely decided at a higher level, ultimately by the State Council, the highest government body.

The Ministry of Finance (MOF) also touches on financial regulation through both its share holdings in the major commercial banks and its control over the Central Huijin Company, through which it indirectly owns substantial stakes in commercial banks.

Beyond this fairly traditional division of regulatory responsibilities, the high level of state control



Notes: The thickest connecting lines correspond to the highest levels of authority in financial policy making. The NPC promulgates all financial sector laws and the State Council executes financial regulation and issues mandatory policy directives to all the financial regulatory and supervisory agencies. The dotted connecting lines indicate the three primary functions of PBC—formulating monetary policy, maintaining financial stability, and providing financial services—and the triple role of the MOF as tax administrator, treasurer, and owner of several commercial banks. The thinner connecting lines emerging from CBRC, CSRC, CIRC, and MHRSS reflect that these entities are mostly responsible for regulating and conducting supervision and oversight of their respective financial sectors *Additional notes:* The SAFE is responsible for foreign exchange operations of securities and insurance companies. The China Development Bank and the Postal Savings Bank are in the process of reforming into commercial banks. Central Huijin exercise rights and obligations as an investor in major state-owned financial enterprises on behalf of the State. The National Social Security Fun has also a dual role as an institutional investor and a stakeholder in some of the largest commercial banks.

of the economy means that other important bodies have quasi-regulatory duties. Most important, the leading role of the Chinese Communist Party means that various party bodies and important party members have considerable influence over personnel decisions at the financial institutions and over detailed decisions about financial activity, including at times decisions about specific large loans. The Organization Department of the party, which is mainly in charge of personnel appointments of government officials, is also in charge of naming key executives in the state-owned banks and the other state-owned financial institutions. Usually the executives are members of the party, and they, like local or central government officials, tend to transfer to different assignments every 5 years or so.

The complete regulatory framework is shown on the previous page in a graphic from the IMF:[19]

How does political influence on personnel appointments affect the large state-owned financial institutions?

Executives in the large state-owned financial institutions are also effectively high-level government officials, in practice if not in theory. This is evident in the following three aspects:

First, they all have political ranks similar to local and central government officials. For example, the political rank of the CEO of Bank of China is the same level as that of a vice president of the PBOC, or a vice governor of a province. One of the reasons that political ranks matter is that they provide banks with bargaining power with local government officials who are often of lower ranks. Providing bank executives with political rank grants them implicit political capital that they can use to bargain with local governments on terms of loans, including resisting pressure to make uneconomic loans for political reasons. But, this does not prevent a local official from using connections with a higher-ranking patron to create sufficient pressure to get their way, and interestingly may make them more susceptible to this form of political pressure from above.

Second, the highest executives in the banks are all appointed by the Organization Department of the party, comparable to the manner by which all the high-level local government officials and central government officials are appointed. Political integrity is one of the most important factors under consideration for their appointment. Given the hierarchical nature of the party structure, this implies a requirement to take very seriously the views of higher ranking party officials.

Third, many bank executives ultimately aspire to top government jobs. The government divisions they move to include the regulators of the finance industry, such as the PBOC or the Ministry of Finance, but also include local government positions, such as provincial leader, and central government appointments, such as vice prime minister. Former Prime Minister Zhu Rongji, for example, once was the CEO of China Construction Bank. Some scholars believe that this appointment system distorts the incentives of the executives (See Allen, Qian, Zhang and Zhao, 2012 for references). This is because taking their future career path into account, executives' decisions about bank operations may not be completely based on their institutional interests. Financial institutions are thus utilized as tools to acquire political capital for their future promotions.

What are the accounting standards in China? How prevalent are accounting frauds in China?

The Ministry of Finance sets accounting standards in China and the CSRC determines what specific disclosures companies with publicly traded securities must make. The most recent disclosure standards were set in 2007.

Unfortunately, there have been a number of prominent accounting frauds in China. The lack of sufficient regulatory resources and the principal-agent problem between listed firms and accounting

agencies also exist in other countries, but there are factors specific to China that encourage such fraud.

One major incentive comes from the local governments, which have major influence on the firms in their territory. Local governments have incentives to raise money for local firms through the stock market. Governments play an active role in helping their local firms get listed. This can sometimes result in the presentation of figures that are exaggerated or situations where risks are hidden.

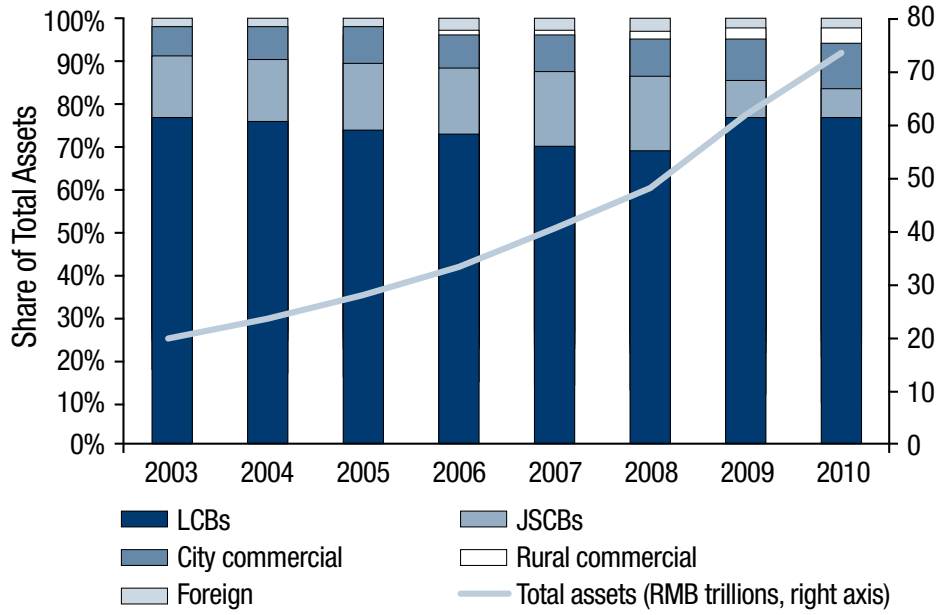
Accounting frauds provide opportunities for hedge funds such as Muddy Waters to find potential frauds and to publicize them after selling short the stock of the firms, in order to profit from the ensuing fall in their stock prices. Since 2010, that fund alone published around 20 reports accusing different Chinese firms listed on the NYSE or NASDAQ of engaging in accounting frauds. Some firms suffered a drop in stock price of more than 70% in the days after the reports on them were out, and eight firms faced a 60% or greater depreciation in stock prices due to Muddy Waters' reports.[20]

Banking Sector

What is the structure of the banking sector?

China's banking sector has developed rapidly since the onset of the reform era. In 1978, the People's Bank of China (PBOC) functioned as both the central bank of China and as the only commercial bank. In the 1980s, four state-owned banks were established out of parts of the PBOC: the Bank of China (BOC), the Agricultural Bank of China (ABC), the China Construction Bank (CCB), and the Industrial and Commercial Bank of China (ICBC). The PBOC has functioned as a more traditional central bank since then, without significant direct commercial banking functions. During the late 1980s to early 1990s, joint-equity banks, such as CITICS and the China Everbright Bank, were founded by raising money from both the government and the private sector. They are not completely privately owned, but the government's stakes in them are significantly less than the government's stakes in the "Big Four" state-owned banks. A number of smaller local banks and local microcredit companies have also started to develop.

Share of Total Assets by Bank Type



Sources: CEIC; and IMF staff calculations.

Market Share of Banks in China, by type

By total assets at the end of 2010

Type of Bank	Asset Value	Market Share
Policy Banks	7.652 trillion yuan	8.0%
Equitized Banks	46.894 trillion yuan	49.2%
City Commercial Banks	7.853 trillion yuan	8.2%
Rural Commercail Banks, Rural Cooperative Banks, and Rural Credit Cooperatives	10.658 trillion yuan	11.2%
Join-stock Commercial Banks	14.904 trillion yuan	15.6%
Foreign Banks	1.742 trillion yuan	1.8%
Other	5.602 trillion yuan	5.9%

Source: Based on data in CBRC's Annual Report 2010.
Note: "Equitized Banks" here refers to the 5 largest banks noted above.

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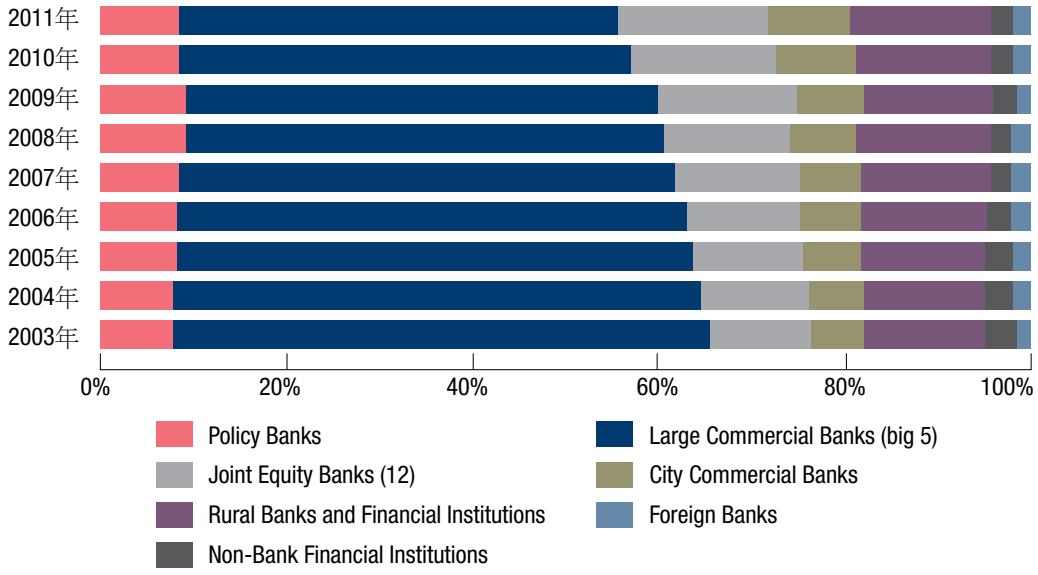
The banking sector in China is highly concentrated, with the five largest commercial banks (the fifth largest being the Communication Bank of China) controlling about half of the total assets in the banking industry. They are all owned predominantly by the government. The second largest category of banks are the 12 "joint-equity banks", 12 banks which make up about 16% of total banking assets. Then there are also the three policy banks—the Agricultural Development Bank of China, the Export-Import Bank of China, and the China Development Bank—which make up 8% of total bank assets and are responsible for funding state-led development projects. As of the end of 2010, there were an additional 349 commercial, township banks, 85 rural commercial banks, 223 rural cooperative banks, and about 2,650 rural credit cooperatives operating in China.[22]

Banking and Financial Institutions: Breakdown of Market Share by Type, 2003-2011

图2：银行业金融机构市场份额（按资产）（2003-2011年）



23

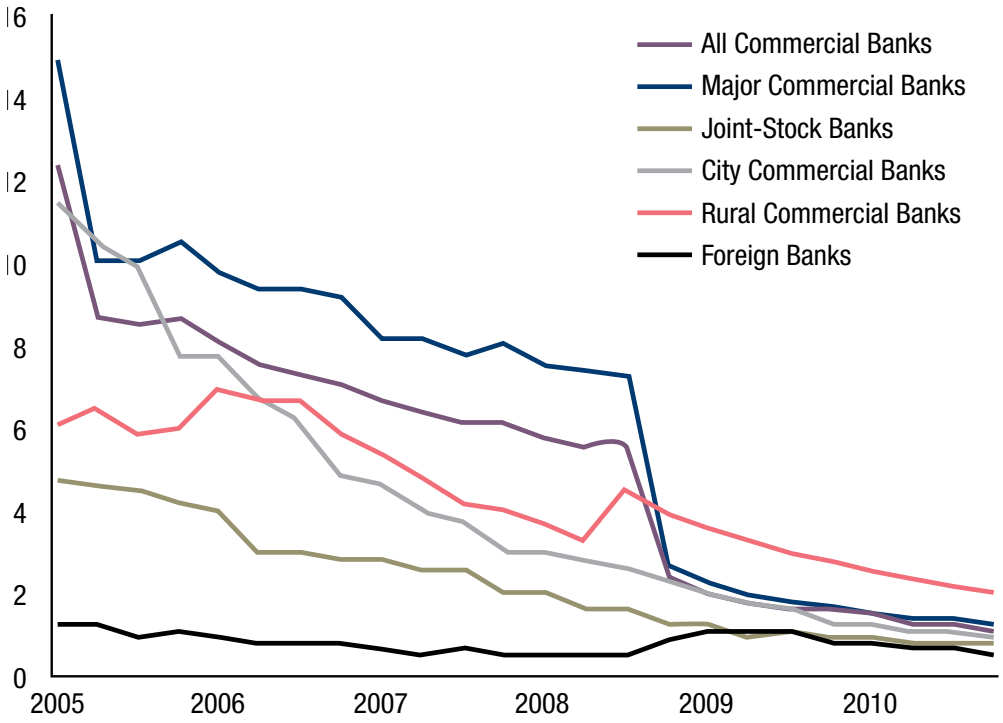
The five largest banks' relative position in the sector has shrunk in recent years reflecting the faster growth rate of other institutions, both in terms of number of banks and in relative share of total assets. As shown in the following graph by the IMF, the share of total assets of the five largest banks (called LCB below) fell from 78% to about 50%, from 2003 until 2010.[24] By the end of 2012, this share was down to 44%.[25]

How profitable is the banking sector in China?

Profitability rose strongly in the banking sector over the past decade for almost all banks, not just the largest. The return on assets for the major commercial banks grew from about 0.6% to about 1.4% from 2006 to 2010. For Chinese commercial banks as a whole, returns on assets have also been steadily increasing over the past 5 years, reaching 1.3% for 2011 and 2012.[26] (For comparison, the long-term average in the US is roughly 1%.[27]) This figure may seem to represent a low level of profits, but it must be remembered that banks are inherently highly levered firms. If only a twentieth of the assets are funded with common stock, the return to common shareholders it twenty times that of the return on total assets.

The main driver of the rise in profits was the increased net interest margin, the difference between the interest rate earned on loans and the cost of funding the loans, mostly determined by the deposit interest rate. The net interest margin contributed 79% of pretax income in 2010. Some observers believe that high bank profitability in recent years comes from the oligopolistic position of the banking system combined with the rigid interest rate constraints set by the People's Bank of China, discussed below.

Profit levels were also aided significantly by a drop in the non-performing loan rate from 9% of total loans in 2006 to less than 1% by 2013.[28] The drop in non-performing loans was universal among types of banks, as can be shown from the following graph by the IMF:[29]



Source: CEIC.

There is a more detailed description on how the government reduced the non-performing loans below.

How are lending and deposit interest rates determined?

Banks are allowed to set their own deposit and lending rates, but only within strict limits set by the PBOC, which determines the base and the upper and lower limits of these rates. For example, the announcement of June 8th, 2012, stated, in part:

"The PBOC decided to adjust the base rates of one-year deposits downward by 0.25%, from 3.5% to 3.25%. Other deposit base rates will adjust accordingly. The PBOC also decided to adjust the upper limit of deposit rates to 1.1 times the base rate, and adjust the lower limit of the lending rates to 0.8 times the base rate. This adjustment will take place on June 8th, 2012."[30]

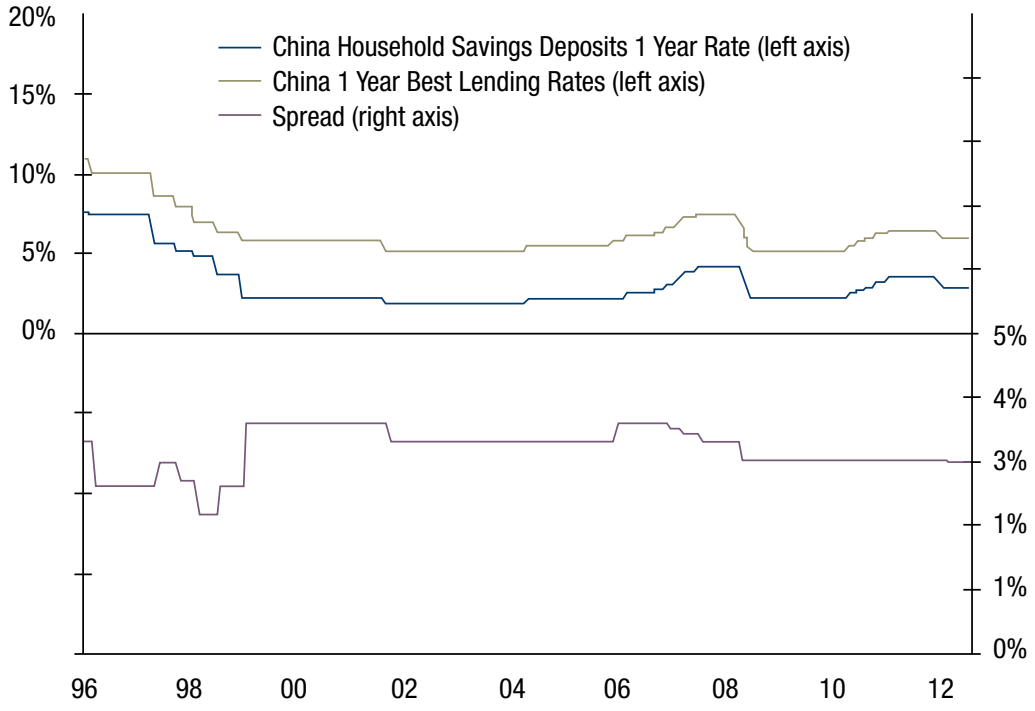
Therefore, by fixing the base rates along with the range of the deposit and lending rates, the PBOC has multiple tools to affect rates. Historically, when the deposit rates and the lending rates were completely set by the PBOC, the gap between them was usually fixed at about 300 basis points (a basis point, or "bp" is one hundredth of a percent, so 300 bps is 3%). The 1-year deposit rate and lending rate from 2002 to 2012, for example, are shown below:[31]

Within the limits set by the PBOC, banks have generally been paying the highest deposit rates they are allowed to pay. Their lending rates vary with the risk level of the loans they are making, although many observers believe that there is insufficient variation in pricing given the true differences in risk.

How did the government reduce Non-Performing Loans?

The non-performing loans that were worked through in the 2000's mainly came from excessive loans to small state-owned enterprises before 2000. Starting in the late 1990s, then-Prime Minister Zhu Rongji started a campaign to promote

China Lending vs. Deposit Spreads



efficiency in the state-owned enterprises in China. The campaign included a plan to close down a large number of SOEs over three years. The closing down of small SOEs forced the banks to recognize their previous loans to these firms as non-performing. After the Asian currency crisis in 1997, the central government began to realize the importance of a strong banking sector. Therefore, they started to act to reduce the large volumes of non-performing loans in order to ensure confidence in the banking system and lower the risk of the crisis spreading to China.

Foreign reserves held by the PBOC and bonds issued by the Ministry of Finance were the two main sources of funds used to rebuild the commercial banks' balance sheets.

The foreign reserves were mainly injected into the commercial banks through a state-owned company called the Central Huijin Company. Central Huijin is controlled by the State Council, the highest government body in China,[32] and is dedicated to "inject equity to the state-owned financial institutions." The Ministry of Finance provided Central Huijin's initial capital, but the PBOC was also another important stakeholder, injecting foreign reserves into Central Huijin as equity.[33]

Central Huijin in turn injected the funds from the PBOC and Ministry of Finance as equity into the commercial banks, with these equity infusions totaling approximately $156 billion by 2012.[34] These investments enhanced the capital adequacy ratio of these banks and allowed them to write off some of the non-performing loans on their balance sheets without going bankrupt.

Another approach employed by the government to reduce the non-performing loans was the establishment of four asset-management companies (AMCs). These AMCs purchased non-performing loans from the banks, in exchange for bonds issued to the banks by the AMCs. The bonds were mostly ten-year bonds with a very low annual yield of 2.25%. The non-performing loans were generally sold to the AMCs at full face value, although later transactions were sometimes transacted at substantial discounts. (The very low yield on the bonds meant that even a purchase at full face value was effectively a discounted purchase from an economic viewpoint, although it did not show up as such for accounting purposes. In simple terms, if the annual yield is 4 percentage points below market for 10 years, this would be roughly equivalent to a 40% economic discount, ignoring compounding effects.)

The four AMCs purchased 1.4 trillion RMB of non-performing loans from 1999 to 2000, and another 1 trillion RMB from 2003 to 2004. The Ministry of Finance indicated that they would back the payment of the bonds by the AMCs, which made some credit rating agencies consider the bonds part of the sovereign debt of the Chinese government, even though it was not clear whether the Ministry of Finance's moral commitment was legally binding. (This does not mean that the bonds are not effectively guaranteed. It would be a great surprise if the AMC bonds were allowed to default. Look for example at the case of Fannie Mae and Freddie Mac in the US, where the markets were correct in their belief in government backing even though the US Treasury consistently and strongly disavowed any such guarantee and there was no legal requirement for such support.)

After acquiring the non-performing loans from the banks, the four AMCs slowly sold them off to recover part of the losses. There is not much information on their operations. We could only readily determine that the "cash recovery rate", which means the cash the asset management firms received from selling the non-performing loans, stayed at the level of about 20% over the period of 2001 to 2006, the period for which we found data. The "asset recovery rate," which means the total value of all assets the asset management firms received from selling the non-performing loans, including non-cash items, varied from 40% to 24% over the five-year period.[35]

Recently, these AMCs started to acquire local commercial banks. There are several possible reasons for these purchases. An optimistic explanation is that the asset management firms are making profits and seeking to expand their business.[36] Yet there is also the possibility that it represents bureaucratic empire building or some other factor.

A third measure for reducing non-performing loans was the introduction of "strategic investors," generally foreign investment banks or investment companies. They injected their money into the commercial banks as equity before the banks went public, and therefore allowed them to write off more of their non-performing loans. This also helped achieve the government's purpose of bringing in needed foreign expertise as China's banks became more commercial in orientation.

The government used different measures for different commercial banks to reduce the volume of NPL's. Some of the older records are hard to find, but as an illustration, we show the measures employed by the government on three different commercial banks (Bank of China, the Industrial and Commercial Bank of China, and the China Construction Bank) in the following table:[37]

How did efficiency at the state-owned banks improve over the years?

The main approach the government took to improve efficiency at the banks was partial privatization. In 2002, the central government decided that the future path for financial reform was to partially privatize the four biggest banks. The government aimed to address a number of issues as part of the process, including corporate governance, non-performing loans, incentive structures, risk management structures, accounting standards, and other issues.

The government managed to address some of these effectively. For example, the accounting standards employed by the banks significantly improved over time, and the listed banks' accounting standards appear to be approaching those employed by international banks. In terms of risk management, some of the biggest banks offered multi-million dollar salaries to hire top risk managers from Wall Street. However, it is widely recognized, even by the Chinese government, that the incentive structure and corporate governance problem are not completely resolved.

Many reasons explain the lack of full resolution. The ownership structure is certainly a critical issue, since few executives are offered stock incentives and their bonuses are not directly related to their economic contributions. Another reason is the close linkages between the SOEs and the state-owned banks. Although we do not have data on this issue, anecdotal evidence suggests that the state-owned banks lend overwhelmingly to the state-owned enterprises, which was one of the direct causes of the situation with the non-performing loans. Research papers such as by Xu and

Banks	Capital Injected by Huijin	AMCs	Strategic Investors
Industrial and Commercial Bank of China	$15 billion	purchase RMB 459 billion doubtful loans by face value, and RMB 246 billion loss loans by face value	Goldman Sachs, American Express
Bank of China	$20 billion	purchase RMB 148 billion doubtful loans by 50% of face value, get the loss loans for free	Bank of America, Temsek
China Construction Bank	$22 billion	purchase RMB 128 billion doubtful loans by 50% of face value	Royal Bank of Scotland, UBS, Asian Development Bank, Temsek

Cull (2003), demonstrated that the loans to the SOEs were based on non-economic, unexplained factors, including political pressure and personal connections.

There is a lively debate about the extent to which commercial considerations have replaced political and other non-economic considerations. There has clearly been a substantial movement in this direction, but, equally clearly, politics and connections remain significant factors in lending decisions. The real questions are about the relative importance of commercial and non-commercial factors and the specifics of how non-commercial factors affect the types of loans being made. One confusing factor in this debate is with regard to the term "commercial." Some use the term to mean decisions that reflect the underlying creditworthiness of borrowers absent government support. Others mean that managers make decisions intended to maximize their bank's profitability, including taking into account implicit and explicit government support for borrowers and other similar considerations in a country in which the government and party play a very large role.

How do foreign exchange interventions affect China's banks?

China has accumulated the world's largest stock of foreign exchange reserves, primarily in US dollars. This is the result of a combination of large trade surpluses, a desire to hold down the RMB/US dollar exchange rate, and, at least initially, a goal of building sufficient reserves to avoid a Chinese version of the "Asian Crisis" of the 1990's, which centered around a collapse of exchange rates in emerging market countries. Strong foreign exchange reserves provide nations with the ammunition to fight any such decline in their currency caused by market pressures.

Foreign exchange reserves are built up by central bank purchases of foreign currency using the local currency as payment. This has the direct effect of increasing the home currency money supply, which can fuel inflation. China, like many other countries, attempts to offset the effect of these purchases on its home money supply by "sterilization" of the foreign exchange purchases. The most direct way of doing this is to withdraw funds from circulation by selling government bonds or other local currency assets that are owned by the central bank. In China's case, the PBOC's sterilization procedures have essentially used up its discretionary supply of local currency assets such as government bonds, so it has gone further and sold "central bank bills." These are relatively short-term, interest-bearing securities backed by the credit of the PBOC. Issuance of these bills creates the potential for PBOC profits or losses based on the difference between the value of the interest received on foreign reserve assets and the interest paid on the central bank bills. Normally this difference produces a loss, unless the central bank pays below market rates, since there would not be market pressure for RMB appreciation if the expectation were that holding dollar assets would produce a better return than holding RMB assets after adjusting for currency moves. When central banks push against market forces, the expectation is that the central banks will lose money over time in order to achieve their larger policy goal.

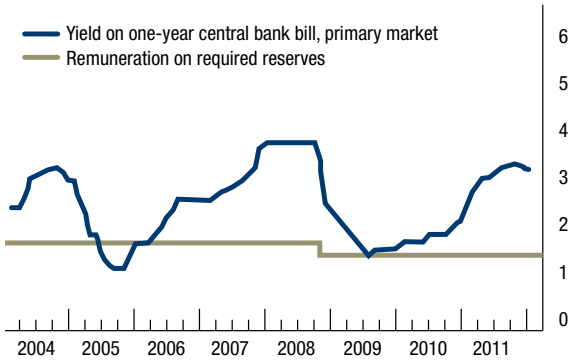
In order to hold down the cost to the PBOC of issuing central bank bills, they tend to bear a low, below market interest rate. The PBOC is able to sell the bills anyway, since banks and other financial institutions are strongly encouraged, or mandated, by the authorities to buy them. The difference between these lower rates and market rates represents a kind of tax on the buyers that reduces their profitability, and shifts some of the burden off the PBOC and onto these institutions. Beginning in late 2010, and continuing through much of 2011 and 2012, the PBOC significantly decreased the number of central bank bills that it issued, focusing instead on re-inserting liquidity into the system. The PBOC accomplished this task mainly through a series of reverse repurchase agreements, or reverse repos, where the PBOC bought securities from Chinese banks under the agreement that

it would sell them back, with interest, at a later date. Repurchase and reverse repurchase agreements allow the PBOC to manipulate the level of liquidity on a much shorter time scale than by simply allowing the central bank bills come to maturity.[38]

Similarly, the PBOC uses another sterilization technique that acts even more clearly as an implicit tax. Banks are forced to hold very high levels of "required reserves." That is, they are required to place on deposit with the PBOC roughly one-fifth of the deposits that they take from customers. These central bank deposits receive little interest, creating a loss for the banks equal to the difference between the amount they pay to bring in the deposits from customers and the amount they receive from the PBOC. The following chart shows the rates paid by the PBOC on central bank bills and on required reserves. Both sets of rates have been well below the returns banks could earn on other safe assets, reducing their profitability.

Sterilisation tools and costs in China

Central bank bill yield and remuneration on required reserved, in per cent



From: Andrew Filardo and James Yetman, "The Expansion of Central Bank Balance Sheets in Emergin Asia: What are the Risks?" 2012.
Sources: CEIC; national data [39]

Many nations set reserve requirements of this nature, but China stands out with reserve requirements of roughly 19% compared to 1% in the Eurozone, none in the UK or Canada, 2.5% in Russia and South Africa, between 5% and 6% in India, a range of 5%-9% in Turkey, and 12% or under in Vietnam. Still, China's required reserve ratio is surpassed by those of Brazil, which has a wide range averaging about 20%, and Lebanon, which sets its minimum at 30%.[40] Raising the level of these requirements, as China has repeatedly done in recent years, serves multiple purposes, so it cannot be said definitively that the ratio is so high solely because of the foreign exchange sterilization. In particular, higher reserve requirements discourage lending and have been used in recent years to slow down the pace of credit growth. That said, many observers do believe that the reserve requirements are being used to hold down the cost of sterilization efforts by the PBOC, or, more properly, to transfer those costs to banks and away from the PBOC.

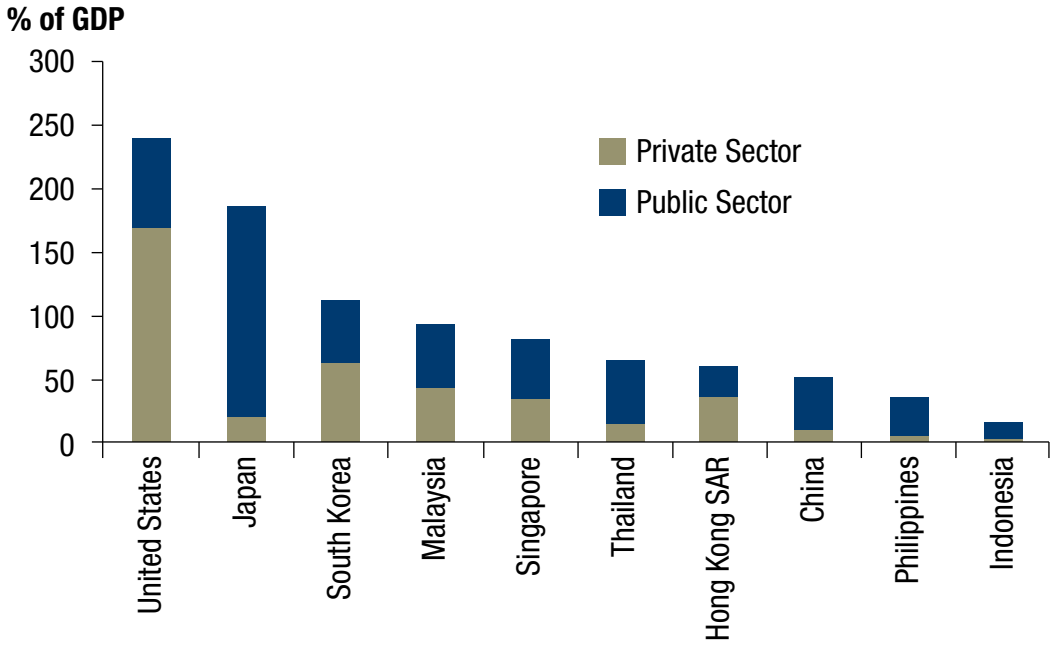
Ming Zhang estimates that sterilization efforts have cost the banks RMB 1.3 trillion between 2003 and 2010.[41] It appears that one reason that the PBOC sets minimum and maximum rates on bank loans and deposits is to maintain an interest margin that will help the banks remain quite profitable despite this drag. This link is one reason why there will be pressure to move in tandem on interest rate liberalization and exchange rate liberalization. Otherwise, a reduction in bank profits would make it harder for them to bear the sterilization costs while earning high enough returns to raise the capital they need to support a growth rate in lending commensurate with the needs of an expanding economy.[42]

Bond Market

What is the state of development of the Chinese bond market?

We can see the relatively weak development of the Chinese bond market from cross-country comparisons, such as in the following graph from the IMF:

Over 35% of corporate bonds in China are owned by banks, making them the largest holders by far. Banks also dominate secondary trading in the relatively inactive corporate bond market, with a 70%



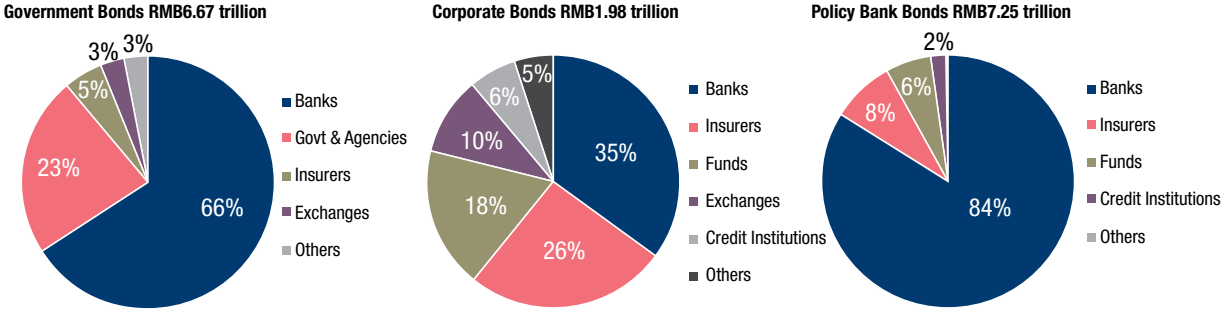
Source: Chinabond, 2010, "China's Bond Market—the View."

market share.[43] (Trading of treasury bonds is considerably more active.)

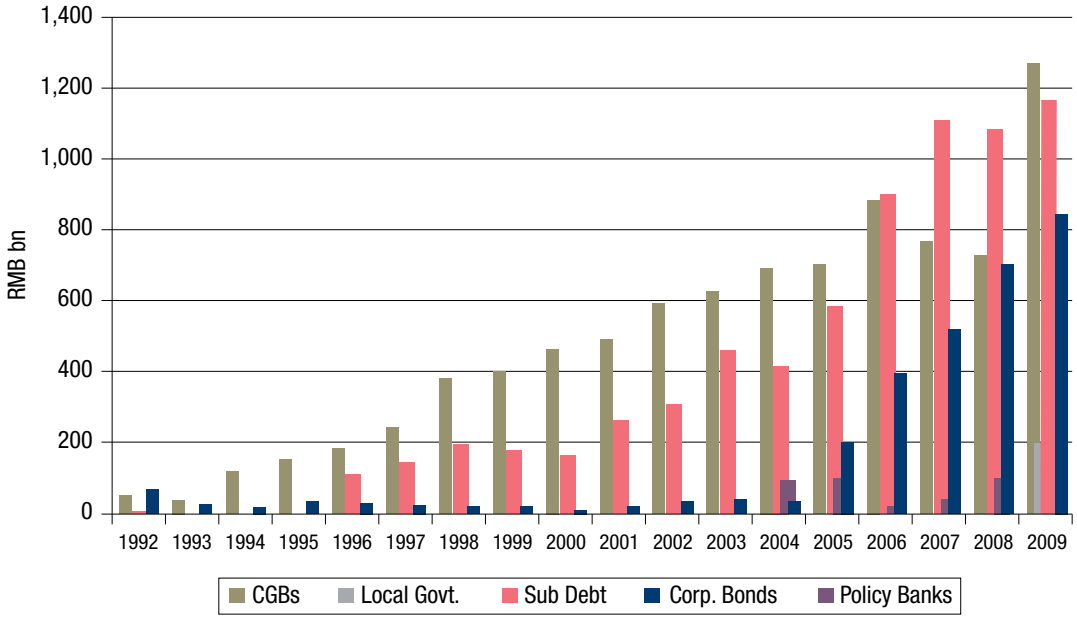
In the past, complicated regulatory arrangements often prevented firms from issuing corporate bonds. The National Development and Reform Commission, the China Securities Regulatory Commission, and the People's Bank of China all had regulatory authority in certain segments of corporate bond market. The NDRC required a one-year process to approve corporate bond issuance. This strict regulatory framework helped drive many firms to bank loans, as is shown in the graph on the top of page 22.

Beginning in 2010, the three regulatory departments started to coordinate better with each other and steps were taken to reduce the difficulties deterring bond issuance. The PBOC took the first step by establishing a medium-term bond market with registration issuance system, which means that firms can issue bonds as long as they achieve certain requirements and reveal certain information. The CSRC followed by establishing a high-yield market with a registration issuance system.

China - Bond Holders as of June 2012



Source: China Central Depository and Clearing Co. Ltd. Research

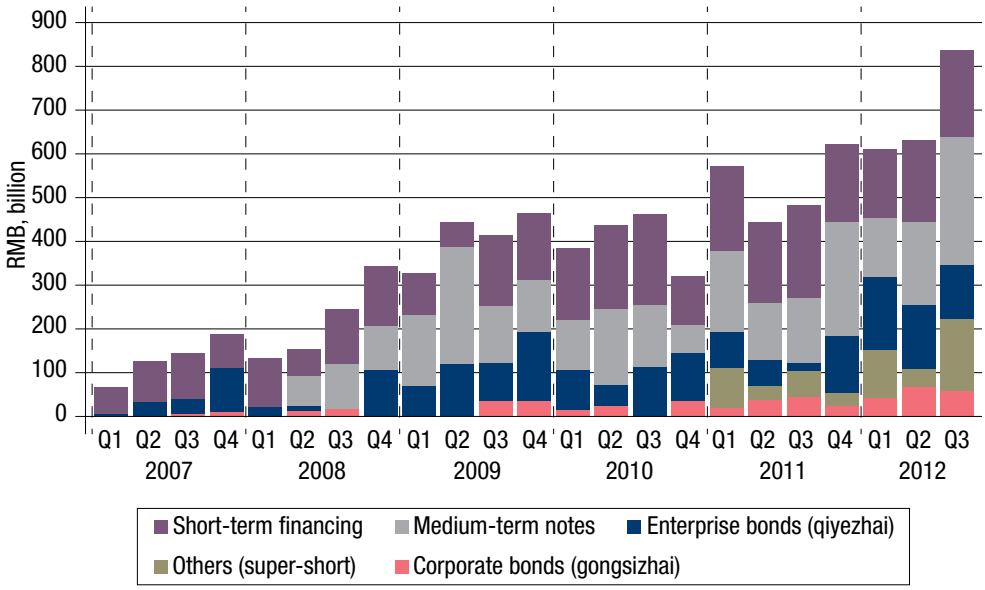


Corporate bonds accounted for a very small proportion of the bond market until recently, yet between 2008 and 2012, total corporate issuance more than doubled, and corporate issuance stood just under 30% of the total bond market in 2012.[44] It is still small relative to central and local government bonds, even after several years of rapid growth. Some of the growth was also exaggerated as part of the bonds that were counted as corporate bonds in 2007, 2008 and 2009 were actually bonds issued by corporations established by local governments.

The number of corporate bonds issued in 2012, 484, was nearly 50% higher than the number issued in 2011, and over 60% greater in total value.[45]

Corporate debt issuance surged to new highs in Q3

Bond sales by nonfinancial corporations, by type



Source: CEIC, GaveKal Data

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Corporate bond issuance in 2012 totaled nearly 2.3 trillion RMB,[47] and analysts project that total financing from this sector will reach 2.75 trillion RMB by the end of 2013, accounting for some 16% of the total social financing for that year.[48] ("Total social financing" is a measure used by the Chinese government that includes most formal credit provision, but also equity raising, foreign direct investment, and some other non-credit items.) In 2007, corporate bonds only accounted for 4% of total social finance.[49]

What is the structure of local government debt?

Debt issued by local Chinese governments came to prominence after the recent financial crisis. In 2008, the central government decided to allow local governments to run official fiscal deficits. Then in the 2008-2009 financial crisis, the central government launched a 4 trillion RMB stimulus package, which required that local governments should be responsible for identifying projects and financing two-thirds of all the money needed in those projects.[50]

The local governments responded by establishing numerous Municipal Investment Corporations (MICs), which then issued corporate debt. In 2012, the amount of capital raised in the bond markets by these provincial, municipal and county entities totaled nearly 640 billion RMB.[51] In addition to these local government investment corporations, the central government also helped some local governments to raise money. In March 2009, the Ministry of Finance issued 200 billion RMB of local government bonds. According to public data, at the end of 2010, the total amount of debt issued by the local governments exceeded 10 trillion RMB.[52]

However, there has been speculation about the local governments' arrangements with the local banks, as well as with the local branches of the national banks. Moody's, for example, questioned the public data and claimed that the official figure is about 3 trillion RMB less than the actual amount. Victor Shih, a professor of political science at Northwestern University, claimed that the local government debt was between RMB 15 trillion to 20 trillion, with about 4 trillion on the brink of default.[53]

What is the situation of rating agencies in China?

The rating agencies in China are not well developed. The largest domestic credit rating agency, Dagong Global Credit Rating (Dagong Guoji), is controlled by the State-owned Assets Supervision and Administration Commission, which is a government agency dedicated to supervising all the state-owned enterprises. Therefore, there is a fear that this rating agency is tilted towards the state-owned enterprises and might easily compromise under political pressure.

A recent example is its ratings for the Ministry of Railroad's bonds issued during the four trillion RMB stimulus package in 2008. About one trillion of stimulus spending was assigned to the Ministry of Railroads, and the central government asked the department to raise money on its own. Therefore, the cost of financing became a very important issue. The rating agency assigned a triple-A rating for all the bonds issued by the Ministry of Railroads, but only assigned an AA+ rating for the treasury bonds issued by the Ministry of Finance. When asked about the triple-A rating for the Ministry of Railroads, the explanation provided by the rating agency was that they believed that the Ministry of Railroads would be able to pay off its debt because the Ministry of Finance backed it.

In 2010, the SEC rejected Dagong's request to enter the U.S. market. The reason provided by the SEC is that it does not allow "cross-border regulation." Therefore the globalization of Dagong is currently limited to East Asian countries and Hong Kong.

Foreign rating agencies such as Standard and Poor's and Moody's all have offices in Beijing. But seldom do they rate bonds issued by the domestic

companies. Their main business in China is to provide ratings for bonds issued overseas, and also to serve as a financial consultant for domestic companies that are listed abroad.

In 2006, Moody's and Standard & Poor's began acquiring small Chinese credit agencies and turning them into their affiliates. For example, China Chengxin International Credit Ratings sold 49% of its shares to Moody's in 2006 and became one of Moody's affiliates worldwide. These affiliates do provide credit ratings for a wide range of domestic companies, including small companies that do not issue bonds outside China.

Stock Market

What is the structure of the Chinese stock market?

There are two main stock exchanges in mainland China: the Shanghai Stock Exchange (SHSE) and the Shenzhen Stock Exchange (SZSE). Another major stock exchange in China is located in Hong Kong. The Hong Kong Special Administrative Region (HKSAR) is treated for most government and regulatory purposes as if it were a separate, although closely allied, country. The Hong Kong Stock Exchange (HKSE) traditionally focused on the equities of locally based firms, but has expanded to trade a considerable volume of "H-shares," shares of Chinese firms, usually majority owned by the government, which have gained permission to sell stock in Hong Kong. H-shares are generally not permitted to be traded on the mainland or to be converted into shares that can be traded there. Listing in Hong Kong has been the main route through which Chinese firms have accessed foreign equity capital, since Hong Kong is a major world financial center with investors from around the globe participating in its markets.

There are also other kinds of shares listed in the SHSE and SZSE. B-shares, for example, are the shares of Chinese firms that are allowed to be owned by foreigners and are often denominated in foreign currencies. The number of B-shares is far below the number of A-shares, which are domestic firms listed on the SHSE or SZSE. As of 2012, there were only 54 B-share stocks in SHSE, with the number of A-share stocks being 945.[54]

Since implicit quotas limit the number of firms that can go public in each stock exchange each year, going to NASDAQ or the NYSE used to be popular among privately owned Chinese firms. However, with funds such as Muddy Waters accusing Chinese firms of accounting fraud, the recent trend for Chinese firms listed in on the NYSE or NASDAQ is to buy themselves private and try to get themselves listed again on the HKSE or the SHSE.

Why is the Chinese stock market so speculative?

The word "speculative" refers to the propensity of investors in the Chinese stock markets to invest in certain stocks mainly because they believe that other investors will purchase those stocks later for a higher price, without much regard for the fundamental underlying value of the firm. Speculative behavior like this, when it is taken to extremes that drive the markets, is commonly believed to have damaging effects on the stock market's function of optimally allocating funds. (A certain amount of speculative activity provides useful liquidity for markets. The problems come when the level is too high.) Speculation of this type can generate bubbles and sudden crashes, especially when combined with a trading mechanism that discourages or forbids short sales, which might otherwise repress excess price rises. (Restrictions on short sales are being eased, which may make this factor less important over time.) There are several reasons why the stock market in China is more speculative than many other stock markets around the world.

Most fundamentally, stock prices should theoretically reflect the underlying value of a firm, because shareowners have the ability to capture the value of the future cash flows through the receipt of dividends or by selling the firm. However, Chinese investors have little ability to ensure that they will

receive a stream of dividends and virtually no ability to force a sale of the firm that they collectively own. The most important firms are majority-owned by the state, or at least have large minority government stakes, which ensures that the government and party will make the ultimate determination on any key actions, such as firm sales or major changes in dividend policy. Even purely private firms are substantially protected from outside influence by a regulatory approach that reflects a leeriness of such pure market influences.

The weakness of shareholder rights in practice also discourages fundamental investment approaches, because there is too much risk that management or well-connected individuals will find a way to siphon off value from the firm.

In practice, listed firms are reluctant to deliver cash dividends. The ratio between cash dividends and profits declined from 41% to 30% from 2008 to 2011, and maintaining at least this 30% ratio for the Shanghai exchange has recently been a major concern among officials. Those firms who fall beneath the 30% threshold are to account for this failure in annual reports.[55] The same ratio for the S&P 500 averages 53% over the long-term (not including share buybacks).[56] Also, the delivery of cash dividends is highly concentrated in blue-chip firms, which make about 80% of aggregate dividend payments.[57] The lack of dividends from the small to mid-cap firms makes the trading of their stocks more speculative.

Another factor is the lack of institutional investors. In China, investing in the stock market is mainly conducted by individual investors through their own accounts. On average, in China, institutional investors have a turnover rate that is about 40% lower than individual investors, suggesting less speculation.[58] Some large institutional investors, such as insurance companies and pension funds, are not allowed to invest in the stock markets. In comparison, investment in the US stock market is made overwhelmingly by institutional investors.

What is the regulatory framework for IPOs?

In contrast to almost all regulatory frameworks in the developed economies, whose IPO procedures are based on registration, the Chinese regulatory framework is still based on approval. The administrative control over the approval procedure is excessive. It is widely agreed among bankers that the regulators employ implicit quotas for different districts and different industries. This rigid quota system pushes many eligible firms to buy the "shells" of firms that were listed but went broke, issuing new stock under the name of the "shell firms."

It is widely believed that the approval framework benefits the SOEs and enterprises with close connections to the government and that the limited supply of new issues has increased speculative interest in those that do come to market.

What financial innovations have occurred in the Chinese stock markets?

In recent years, there were several new features introduced to the Chinese stock market. The first innovation was the promotion of stock index futures, carried out in 2010. This was supposed to be implemented in 2007, but was postponed by the State Council for 3 years because they "needed to reconsider the risks." The other major financial innovation was also carried out in 2010, allowing traders to do leveraged trading and also short sales on 180 stocks chosen by the CSRC.

These two innovations grant substantial edges to the institutional investors in the markets because they allow them to hedge their risks better, and sometimes trade more aggressively. The bar for permission to do futures trading, leveraged trading, and short sales is high, making it hard for individual investors to use these tools.

What are the ownership structures of the listed State-Owned Enterprises?

Although the largest IPOs in the Chinese stock market were all IPOs of the SOEs, the government still holds most of the stocks of the SOEs. Therefore, the capital structure of the SOEs usually incorporates two parts under their equity account: tradable shares and non-tradable shares. Usually there are many more non-tradable shares than tradable. Sometimes the initial ratio of tradable shares to non-tradable shares was as low as 1:19. This ratio will rise substantially over time, as the non-tradable shares generally become tradable gradually over a period of time that differs across the specific companies.

This situation is caused by both political and historical reasons. In the late 1980s, the State Council assembled experts both from China and the US to discuss the possibility of establishing a stock market. One important goal, according to the minutes released later, was to strengthen the SOEs by allowing them to raise money in the stock market. By the end of the 1980s, there had been a wave of private enterprise development and social instability, which led political leaders to believe that the private sector development was undermining the SOEs. Therefore, the discussion of the establishment of the stock markets was premised on state-owned enterprises avoiding full privatization, avoiding potential losses on state-owned assets, and still remaining the primary sector of the economy. Therefore, from the beginning of the stock market, the state kept firm control of the listed SOEs by holding majority stakes. The state also made those stocks non-tradable to prevent them from being acquired by private firms or individuals.

In the late 1990s and early 2000s, after realizing the incentive problems brought by these ownership structures, the State Council three times launched the so-called "Reduction of the State's Shareholding" campaigns. They all failed because the stock market gave these campaigns extremely bearish responses, which would bring up the debate on the "loss of good state-owned assets to the private sector." These debates and the political pressure that came along with them were the main reasons why these campaigns failed.

The fate of the 2001 campaign is a useful illustration. The State Council, after several rounds of discussions, proposed a document called "A Tentative proposal to Reduce the State's Shareholding and Raise the Social Security Fund." The document stated that the state's share in the SOEs should be sold at the current market price, and the proceeds be injected to the state's social security fund.

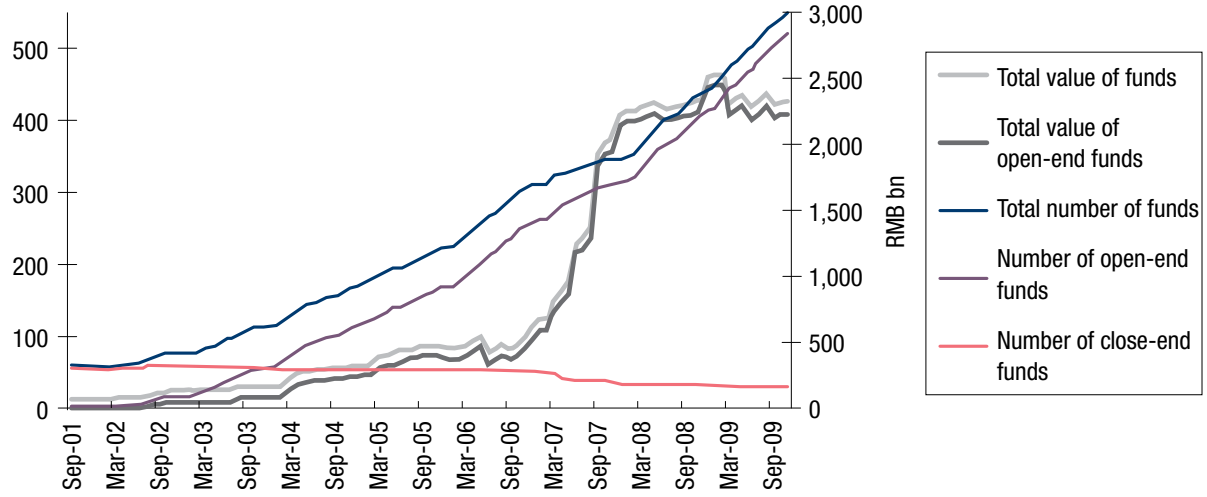
The prospect of a sudden increase in the supply of stocks made the market bearish. The index of Shanghai Stock Exchange dropped from 2245 in June to 1514 in October 2001, a more than 35% drop in four months. (World markets were also declining during this period, so presumably only a portion of this drop was because of the Chinese government's potential share sales.) This forced the State Council to cancel the enforcement of the above proposal.

Other Financial Institutions

How developed is China's asset management industry?

The development of China's asset management industry can be divided into three stages. The first stage was from 1992 to 1997. In this stage, the first closed-end mutual fund was established in 1992 and the whole industry experienced a wave of fast growth from 1992 to 1997. However, the lack of regulation allowed frauds and led to social instability. The first set of regulations for the asset management industry was issued in 1997 by the CSRC, which was followed by a period of low growth in this industry.

The second stage of rapid development started in 2001, when the first open-end mutual fund was established in response to a CSRC proposal to



develop such funds in China. (Most US mutual funds have traditionally been "open-end," meaning that investors can pull their money out or add new money in on any working day and the fund managers will adjust their holdings accordingly. Closed-end funds maintain their same size, but allow investors to buy and sell their shares on the market.) The domestic open-end mutual fund industry has been the fastest growing sector in the asset management industry from then on, as is shown in the graph from Allen et al. (2012)

The third stage started in 2002. As part of the agreements for joining the World Trade Organization, the Chinese government agreed to allow several Qualified Foreign Institutional Investors (QFII) to invest in the Chinese market. The State Administration of Foreign Exchange, in conjunction with the China Securities Regulatory Commission, approves and regulates the QFIIs, as well as imposing a maximum quota on total QFII investments. This quota has been expanded in recent years, more than doubling in early 2012 to a maximum of $80 billion.[59] This expansion occurred in the context of moderate increases in the value of QFII assets, which stood at about $25 billion in early 2012 (when the cap was at $30 billion),[60] and increased to $33.6 billion by the end of the year. Part of this expansion was made possible by the relaxation of the qualification requirements for prospective QFIIs, lowering the required size of assets under management for QFIIs, relaxing the rules pertaining to QFII operating history, and raising the ceilings for total assets and proportion of shares owned. Because of these changes, the total number of approved QFIIs stood at 202 by the end of 2012, with nearly one third of the approved QFIIs, (as well as over one third of assets,) entering the market during 2012 alone.[61]

In 2006, the Chinese government started to allow a limited number of domestic asset management companies to invest abroad. By the end of 2009, the number of Qualified Domestic Institutional Investors, which are approved by the State Administration of Foreign Exchange to invest abroad, reached 75, and the assets managed abroad reached $73 billion.[62]

What is the situation of the trust industry in China?

Trust companies in China are asset managers for high net worth individuals and companies and, on the other side, sources of credit for firms in need of funding. Thus, they represent a cross between banks and asset managers, since they act as financial intermediaries, keeping some credit risk and

passing along other parts to wealthy investors. The rapid growth in assets under management in this sector makes it the third largest financial services sector after banking and insurance, with RMB 7.5 trillion ($1.2 trillion) under management as of the end of 2012,[63] compared with RMB 3.0 trillion in 2010, 2.1 trillion in 2009, and a mere 380 billion in 2006.[64]

There are 66 trust companies. Unlike most financial sectors in China, this industry is not dominated by a small number of large firms; the 10 largest players only account for about 44% of the total net profits in this industry.

The main value of the trust companies as asset management companies is their ability to provide alternative investments. The products offered by trust companies differ greatly from those provided by mutual funds and banks. For example, according to data from the China Trust Association in January 2010, among the 32 new products, 12 products focused on investment in firms, either through equity or credit, 10 products focused on real estate, 3 focused on infrastructure investment, and 2 focused on investments in other financial institutions. These various products satisfy the needs for high net worth individuals and companies to diversify their portfolios.

The principal service the trust companies provide as a source of credit is through making loans. Although they also invest in equity, the main component of the portfolios held by these companies is loans to other firms, which makes up about 40% of their investments. Therefore, they are an important source of funds for small and medium firms and real estate developers. They also provided finance for local government's investment in infrastructure. In a way, they are implicit holders of local government bonds through their loans to the MICs.

The trust companies have also become significant partners helping the banks work around the limits they face on maximum deposit rates. Trust companies offer "wealth management products" to high net worth individuals, including participations in loans made by the banks. The investor receives the revenues from the loan, minus various fees to compensate the bank and the trust company. Even after these fees, the net rate is still well above the permitted maximum deposit rate. Policymakers are concerned that individuals are counting on implicit guarantees by the bank and the trust company, rather than relying on an individual assessment of the loan's credit risk. Thus, banks may have significantly more credit risk than is shown on their balance sheets, with the risk of serious systemic consequences if one or more banks fail to make good on their perceived promise to guarantee the loans, leading to a panic about other wealth management products. In this respect, it is reminiscent of the US government's implicit guarantees of the debt of Fannie Mae and Freddie Mac or the US banks' implicit guarantees of the borrowings of Structured Investment Vehicles. Both analogies are disturbing as they added to the problems of the recent financial crisis.

It should be noted that banks have increasingly been offering wealth management products directly to investors, in part because of a regulatory crackdown on the cooperation between banks and trusts in this area. Similarly, banks now sell some third-party products that derive from private equity and other types of firms rather than trusts.

Since 2010, there have been concerns about the risks in trust companies for three reasons; the slowdown of the real estate market; their holdings of local government debt; and their rapid expansion and product innovation. As a result, the regulator for this sector, the China Banking Regulatory Commission, required the trust industry to re-evaluate risk according to a new risk metric and to put up extra capital as buffers for potential risks.

Despite increased regulatory scrutiny and restrictions, the trust sector boomed in 2012, with an increase of RMB 1.3 trillion in trust loans outstanding, compared to a growth of RMB 0.2 trillion in

2011.[65] Many theorize that regulators eased back again on some restrictions as the result of a concern about the slowing growth of the economy in 2012, which was viewed as being exacerbated by credit tightening.

What is the situation of the insurance industry in China?

The insurance industry started its development in 1980, with only one insurance company, China Life Insurance. In 2012, the total number of insurance companies reached 130, total assets reached RMB 7.4 trillion,[66] and premium income reached 1.4 trillion.[67] The market is currently highly concentrated, with the largest three companies holding more than 70% of the market in both life and property insurance markets.

Although growing rapidly, the insurance industry is still relatively under-developed. There are usually two indicators that measure the development of the insurance industry in a given country: insurance penetration and insurance density. Insurance penetration is measured by the ratio between annual premium income and a country's GDP. Insurance density is measured by per capita premium, which reflects the average holding of insurance. The depth of the insurance industry in China is 3.7%, and the density is RMB 1,085. For the US, the same numbers are 7.9% and $3,124.

The assets managed by insurance companies were mostly invested in treasury bonds, local government bonds and deposits. Starting in 2010, the CIRC enabled insurance companies to invest up to 5% of their total assets into the stock market and other more risky asset categories.[68]

What is the situation of the Venture Capital and Private Equity industry in China?

We examine these two different types of asset management firms together because they are very similar in China. In the US, venture capital firms usually focus exclusively on investing in startups and small to mid-cap firms, while private equity firms usually focus on operations such as leveraged buy-outs (LBOs) or the acquisitions of small companies. But in China, since there are not many LBO deals, both venture capital and private equity focus on investing in firms that are not listed and almost the only way for them to exit is to get those firms listed in either Chinese or US stock markets.

This sector is among the fastest growing in the past few years and its impact on the capital market is now significant. This is due to the launch of the Growth Enterprise Market in China at the beginning of 2010, which allows many small and mid-cap companies to list. From January 2010 to April 2011, among the 460 IPOs in China, 204 of them are supported by PE and VC, and 153 of them have at least a PE or VC holding more than 5% of their total shares.

The market is not very concentrated and is packed by small firms with less than RMB 500 million under management. Among the 1703 PE/VC firms in China, only 13 of them have more than RMB 10 billion under management, and 1134 of them have less than RMB 500 million under management. The average number of staff in a PE/VC firm is 19.[69]

There are discussions in China about rent seeking in the PE/VC business. Some family members of the top political leaders in China are reported to have been major players in this sector.

How open is China's financial system to foreign participation?

Foreign banks play a small role in China, with only 2% of loans coming from such entities. (For comparison, foreign banks in the US account for over 20% of the market.) This is not from lack of interest, as there are over 300 foreign banks operating in China, and 4 of the 50 largest banks in China are international.[70] Foreign bankers argue that Chinese officials make it difficult for them in various ways to operate or expand, using the very considerable

administrative powers available to Chinese financial authorities to favor local banks. Perhaps more important, however, are the structural obstacles to the foreign banks. These include the high level of state ownership of corporations that are potential customers of the foreign banks, the network of Communist party and other connections linking local bankers and local customers, and an inability to compete for RMB deposits through higher rates (given the limits on maximum deposit rates).

Foreign banks cannot overcome these obstacles by simply buying well-established local banks. China still has limitations in place regarding ownership by foreign investors. An individual foreign investor is limited to a 20% ownership stake in a bank, and the combined share for investors in a joint venture is limited to 25%. The foreign equity cap in securities joint ventures is set at 49%, having been recently raised from 33%.[71] This 49% ceiling also applies to joint ventures in the fund management sector. Similar restrictions apply to foreign insurance companies, who are limited to joint ventures with an ownership share of 50% or less. In 2010, foreign insurance companies held only 4.3% of the market in China, and the foreign share of the property and casualty markets was even lower (only 1.2% in 2012).[72]

It does not appear that foreign financial institutions are likely to make major gains in market share in the short run, but the field may become more open as liberalization of interest rates, exchange rates, and capital flows proceeds. The handicaps foreign banks face should lessen as the direct role of the state and party decrease in the financial sector and in the wider economy.

The Informal Financial Sector

Why does China have an informal financial sector?

It is widely recognized that China has a very sizeable informal financial sector, which refers to financial intermediaries that are not registered with any regulatory agencies and therefore are not regulated. This informal sector is often lumped together with the wealth management products offered by regulated banks and trusts and referred to as the "shadow banking" sector, because they accept deposit-like funding and provide credit outside the traditional, and more highly regulated, banking model.

Technically, these financial intermediaries are often in violation of Chinese law. But local governments, knowing the existence of these financial intermediaries, usually allow them to continue operating unless there is evidence that they may have done harm to the local economy. The composition and size of the Chinese informal financial sector, according to the IMF, is illustrated table[73] on the following page.

Several reasons have been proposed by leading academic and business journals to explain the existence of a sizable informal financial sector.

The first reason is the local government's borrowing behavior. Local governments have become the main competitor with local firms for bank loans. According to a recent report by the PBOC, one-third of the outstanding loans in China were made to the local governments. Over the last several years, about 30% to 40% of total loans went into government infrastructure projects. This massive borrowing on the local government level crowded out private borrowing.

The second reason is the structure of the Chinese banking industry.[74] As described above, several large banks dominate the banking industry in China. Large Chinese banks tend to lend to large firms. In other countries, such as the US, small local banks and other savings and loans companies fill the gap left by large banks. Also, large banks in those countries develop other financial instruments targeted at small private firms. This is not the case in China's formal sector.

The third reason is the under-development of the corporate bond market. This has made it very

Category	Financial Institutions	Registration	Investigators/Regulators
Informal financial sector	Pawn shops, credit guarantee companies, micro-finance companies	Local governments	Investigated by the PBC, CBRC, and the Ministry of Public Security. In addition, Financing Guarantee Regulatory Interministerial Joint committee led by the CBRC is responsible for making the regulation and policy of credit guarantee institutions, providing guidance and conducting coordination. The local government is responsible for the supervision including licensing, on-site examination and off-site surveillance.
	underground intermediation	No	No regulators, although the PBC implements survey or investigation occasionally.
Private equity	Estimated 3,500 PE funds have been established with assets of around RMB900 billion as of mid-2010 of which around 70 per cent is funded from overseas	Industrial and Commerical Bureau	The PE investment is governed by rules and regulation issued by both NDRC and MOC, whereas the CSRC performs survey and collects data of PE funds. In addition, some PE funds are not yet in regulators' radar screen.
Wealth management products	Estimated 7,049 Wealth Management products were outstanding at the end of 2010, totaling RMB 1.7 trillion, and 124 banking institutions were involved in the practice.	CBRC, CSRC, and CIRC	PBC, CBRC, CSRC, and CIRC

difficult for local private firms to issue corporate bonds to raise money.

The fourth reason is the IPO regulatory framework. As discussed above, the approval system poses further difficulties for local firms with no connections with the government to go public and raise money.

Fifth, the periods of negative real deposit rates, due to spurts of high inflation, while not the source of the shadow banking sector, certainly exacerbated its growth. Between February 2007 and October 2008, and from February 2010 to October 2011, the real one-year interest rate on deposits in Chinese banks was negative. During these periods, there was a consequent growth in the informal financial sector, as this sector avoids the government-mandated ceiling on deposit interest rates. The higher rate available to savers helps draw a lot of wealth into the informal sector, especially during these inflationary spells.

To sum up, local private firms have very limited access to bank loans, the bond market and the stock market. Therefore they are almost forced to acquire funds from informal channels.

What is the situation of the informal financial sector in China?

There is no official data or studies on the informal financial sector on a national level. The related area of wealth management products has been singled out as especially concerning by Xiao Gang, the chairman of the Bank of China. He has estimated there to be over 20,000 of these WMP's, reaching a total value of 12.14 trillion RMD by 2012. Mr. Xiao has characterized this 'shadow banking' sector as "a potential source of systemic financial risk," whose model is "fundamentally a Ponzi scheme."[75] A more conservative estimate places the value of these WMPs at only 7.1 trillion RMB,[76] other estimates agree that the value of these wealth management products is not much greater than 14% of

China's GDP. This is still striking, given that they were only just above 4% of GDP in 2010. The rapid growth of this shadow banking sector can be attributed to the period of negative real interest rates on bank deposits during the majority of 2010 and 2011.[77]

Other informal financial flows, such as private lending, are even more difficult to account for, with analysts roughly estimating the later to amount to some 4 trillion RMB per year. Overall, the informal 'shadow' banking sector is estimated to account for just over 20% of total bank assets (2012), an increase of about 33% since 2010.[78]

One way of evaluating the current situation of the Chinese informal financial sector is by taking a look at Wenzhou, which is one of the places that the informal financial sector has thrived over the past few years.

Wenzhou is a city in Zhejiang Province, one of the most developed provinces along the east coast of China. Wenzhou is famous for its industrial output and at the beginning of the reform era generated a group of high net worth individuals. It is reported that the GDP of Wenzhou reached RMB 243 billion in 2010, with per capita GDP being RMB 40 thousand, compared to a national average of RMB 30 thousand.[79] About 300,000 small private firms produce more than 90% of the local output, with about 70% of them relying heavily on exports.

The informal financial sector went through two stages in Wenzhou. The first stage started in around 1995 and lasted until the global financial crisis. In this stage, the rapid development of the Chinese economy and, most importantly, export-driven economic growth, generated a large group of wealthy individuals in this area. The informal financial sector in this period mainly served as underground asset management firms providing alternative investment opportunities. For example, it is claimed that about RMB 200 billion flew into the real estate market in Beijing and Shanghai, causing a boom in real estate prices. The informal financial sector was also accused of causing large swings in cotton prices, meat prices and many other commodity prices.

The second stage started after the financial crisis and continues now. Since the Chinese economy has slowed down and the global financial crisis, combined with the ensuing Euro Crisis, has reduced foreign demand, many local firms have experienced a drying up of liquidity. The local informal financial sector provided short-term liquidity for the local firms during this period. The liquidity provision was mainly done through very short-term but high-yield loans. For example a loan could be as short as 3 to 5 days, and the annualized yield could reach 70%. It is estimated that the magnitude of the informal financial sector in Wenzhou reached RMB 700 billion.[80]

The downturn of global trade as a result of the global financial crisis also caused a large scale default of local firms. Some owners of private firms, who had significant debt within the shadow banking system, went abroad to avoid debt collectors. This, in turn, affected the fragile local underground financial system, triggering defaults that harmed their investors.

In 2011, the local court sentenced one of the CEOs of the underground financial system to death, convicting her of "illegally gathering investors' money". This case was brought to national attention by some very prestigious economists, who insisted that "illegally gathering investors' money" should either not be a violation of the law or should not receive such a severe sanction. Prime Minister Wen Jiabao himself also asked the court to "reconsider carefully the accusation and the final verdict". In the end the Supreme Court repealed the death sentence. This case is widely seen as providing an impetus for further financial reform in Wenzhou.[81]

The regulatory framework of the Wenzhou informal financial sector has changed over time. Before 2012, one could establish an "investment company", which was usually the entity for infor-

mal financial services, by registering in the local commercial department. After that, there were no government units that regulated these investment companies. After 2012, since there have been several very wide ranging defaults, and the government seems to believe that the informal financial sector could cause future systemic risks, there have been discussions on how to regulate the informal financial sector. In early 2012, the State Council approved the establishment of new financial districts in Wenzhou, in order to experiment with the proper way to regulate the informal financial sector.

The Intersection of the Financial System and the Real Economy

What is the financial market's role in China's real estate market?

Chinese real estate prices started to boom in the 2000's and reached a point where many observers diagnosed the existence of a bubble. One piece of evidence supporting the existence of a real estate bubble was that the growth rates of real estate price indices were substantially higher than the growth rate of income for most of the large cities. For example, in the case of Beijing:

The boom in real estate prices then spread to middle-sized cities such as Hangzhou, Nanjing and Wuhan. In 2010, real estate prices on Hainan, an island that is usually referred to as "the Hawaii of China," doubled in less than 3 months.

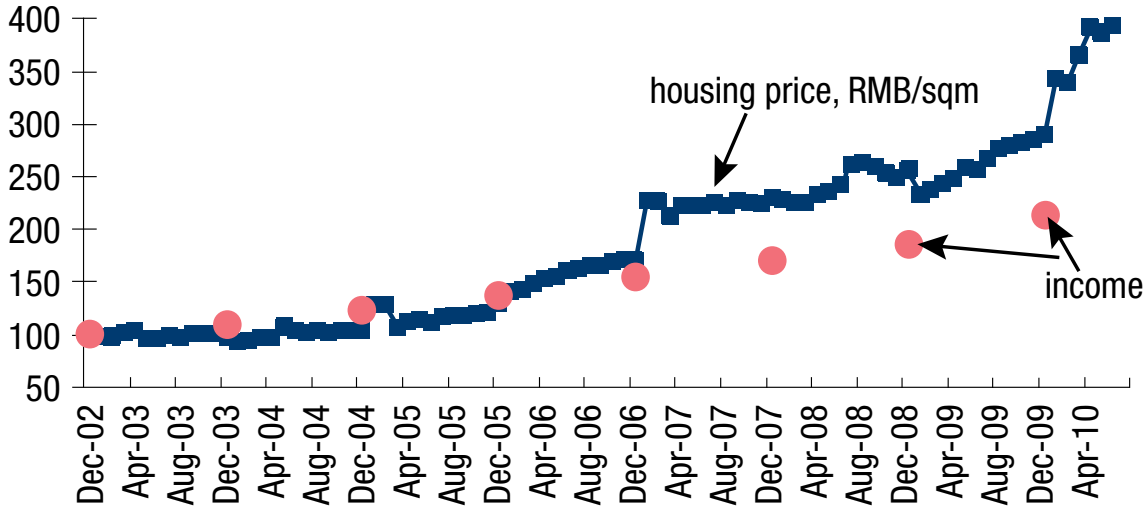
There are debates in both academia and the government about whether the boom can be called a bubble. The government finally concluded that there were "bubbles in several major cities, due to speculative behavior by wealthy individuals."[82]

The boom of housing prices was a consequence of multiple factors. The most direct cause was the housing reform in 1998 that allowed people to purchase houses directly from developers, instead of waiting for their employers to distribute them.

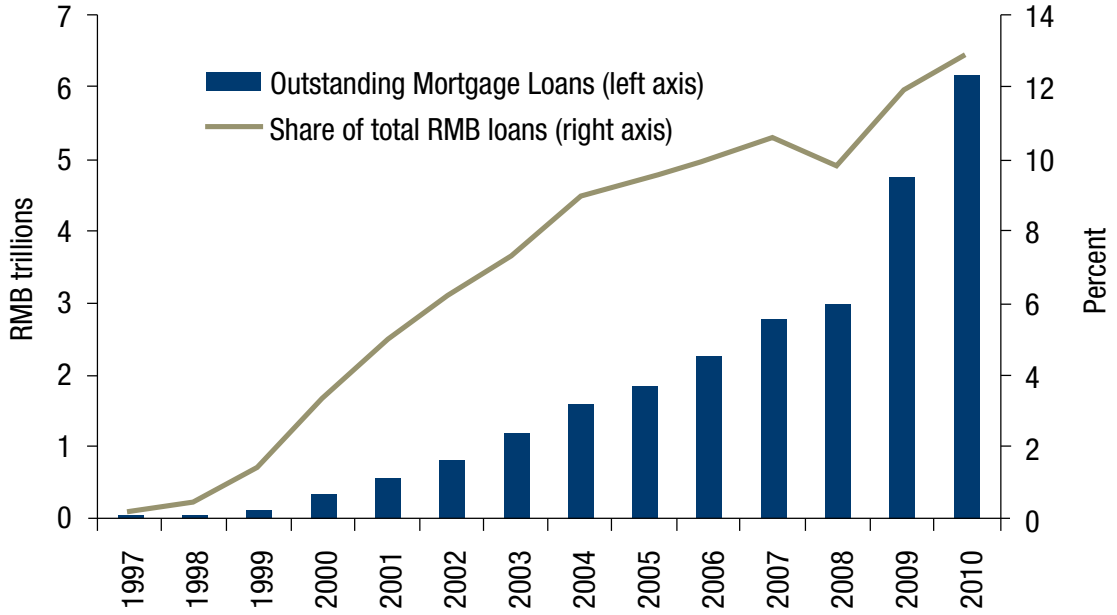
However, the financial sector also played a role in this boom. There were at least three ways through which the financial sector may have influenced the

Beijing Housing Price vs. Disposable Annual Income

Normalized, base year = 2002
adjust by CPI, 2002 = 100



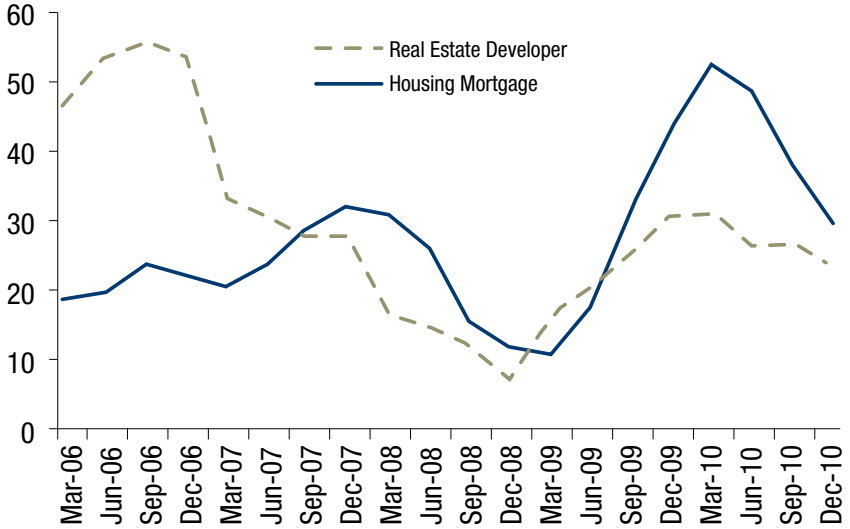
China: Growth of Mortgage Lending



Sources: CEIC; and IMF staff calculations.

real estate prices. The first was the development of mortgages. Before 1998, the mortgage industry was very under-developed due to the lack of demand. But since the reform in the real estate sector, it grew from a market of RMB 17 billion in 1997 to a market of over 7.2 trillion in 2012.[83]

The second factor was lending to real estate developers. These loans could have influenced the real estate prices in two opposite ways. If the loans were widely available across all real estate developers, then they could foster competition among developers and therefore lower the real estate prices.



Sources: CEIC; and IMF staff calculations.

If the loans were only available to a handful of the largest developers, then they could boost the real estate prices by allowing them to bid more aggressively in the land auctions. In the case of China, it seems that the latter was the case. This factor may not be as important because the real estate prices did not fall after bank loans to developers fell sharply in year 2009.

The third factor, which has been widely discussed (e.g. Lardy, 2012) but cannot be directly proven, is the lack of other financial assets for attractive alternative investments. For example, it has been argued by a number of scholars that if the Chinese stock market became less speculative, or the Chinese bond market was more mature, or if China simply liberalized the capital account, the real estate bubble would not have taken place because people would have chosen to park part of their money somewhere else.

Conclusions

The Chinese financial system is of great importance both for its role in enhancing or holding back the development of China's economy and because it will also affect the rest of the world, depending on how finance in China evolves over the next decade. Although the system is vulnerable to a number of risks and its opacity means that still more dangers may lie under the surface, it has served China well overall during the nation's rapid development. As the country slows its breakneck growth rate, and works towards the necessary evolution to greater economic sophistication and international integration, the financial system is likely to continue to support the larger economy. However, it will have to evolve very considerably to do this effectively, and all concerned should watch carefully and help China avoid the many pitfalls. It is encouraging that the new political leadership shows signs of understanding the need for this evolution, and its challenges. It is, though, much too early to tell whether this apparent understanding will be translated into workable reforms.

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Endnotes

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