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Like China, the Chinese banking sector is in a class of its own

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Zuzana Fungáčová[a] and Iikka Korhonen[b]

Like China, the Chinese banking sector is in a class of its own*

Abstract

This paper provides an overview of the Chinese banking sector, which has expanded tremendously over the past two decades. We first describe aggregate developments of the sector and compare them to the situation in other countries. Also, various financial institutions that operate in China are analyzed. Our results confirm that the Chinese banking sector is truly in a class of its own, especially given the level of China's economic development. Despite significant reforms, the state and various public organizations still own controlling shares in the largest commercial banks. The state is also present on the borrowers' side; it is estimated that about half of state-owned commercial bank lending still goes to state-controlled companies. In this way, the banking system can serve as an important policy tool. Another distinctive feature of the Chinese banking sector is the variety of its banking institutions. New types of banking institutions, especially those serving rural areas, are emerging all the time. While equity and debt markets are still tiny relative to the banking sector and their importance as sources of financing of investment remain minor, they have evolved rapidly in recent years.

Keywords: China, banking sector, state banks
JEL Classification: G28, P34, G21

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Tiivistelmä

Tässä tutkimuksessa esitetään yleiskatsaus Kiinan nopeasti kasvaneeseen pankkisektoriin. Ensin kuvaillaan sektorin kehitystä ja verrataan sitä muiden maiden tilanteeseen. Työssä myös analysoidaan muiden kiinalaisten rahoituslaitosten toimintaa. Kiinan pankkijärjestelmä on monin tavoin ainutlaatuinen, varsinkin kun Kiinan taloudellinen kehitystaso otetaan huomioon. Pankkijärjestelmän uudistuksista huolimatta julkinen sektori hallitsee edelleen suurimpia pankkeja. Julkisen sektorin omistamien pankkien lainanannosta puolestaan noin puolet menee valtionyrityksille. Tällä tavoin julkinen sektori voi käyttää pankkijärjestelmää talouspolitiikan välineenä. Kiinan pankkijärjestelmän ominaispiirteitä on myös erilaisten pankki-instituutioiden suuri määrä. Uudenlaisia pankkeja syntyy jatkuvasti, etenkin maaseudulla. Kiinan osake- ja velkakirjamarkkinat ovat kehittyneet nopeasti viime vuosina, mutta ovat vielä erittäin pienet pankkijärjestelmään verrattuna, ja niiden merkitys yritysten rahoituksessa on vähäinen.

Asiasanat: Kiina, pankkijärjestelmä, valtionpankit
JEL: G28, P34, G21

1 Introduction

This paper provides a brief overview of the Chinese banking sector, which has expanded tremendously over the past two decades. Given the importance of China as the world's second largest economy and the prominent role of its banking sector, analyzing the current state and future of the banking sector is of great interest.

Growth in the banking sector has been accompanied with a substantial improvement in the quality and diversity of financial services available. In this respect, the Chinese experience reflects that of former socialist countries in Central and Eastern Europe (CEE), where market-oriented banks and financial systems have swiftly achieved high degrees of sophistication. In stark contrast with most CEE countries, where large-scale foreign investment and participation in the banking sector has been the norm, China's state-controlled banks continue to dominate the financial sector. Here, Chinese policy has striking parallels to the Russian experience; there has never been a major effort to privatize banking and banks today continue to be directly or indirectly controlled by the state or public institutions.[1]

In the following, we note and analyze aggregate developments of the Chinese banking sector. As the Chinese banking system as percentage of GDP is substantially larger than in other middle-income countries, we also compare the Chinese banking system to those found in more advanced countries. One reason Chinese banking differs from most countries is the high savings rate, which, in turn, has become an integral aspect of the Chinese growth model.

Another distinctive feature of the Chinese banking sector is the variety of its banking institutions. New types of banking institutions, especially those serving rural areas, are emerging all the time. Many of the implemented reforms have also significantly contributed to improving the financial health of banks.

In addition to the banking sector, we briefly discuss other parts of the financial sector. While equity and debt markets are still tiny relative to the banking sector and their importance as sources of financing of investment remain minor, they have evolved rapidly in recent years.

[1] The lack of capital controls, of course, means that Russians have greater freedom in choosing providers of their financial services.

Given the massive size of the Chinese banking sector, significant further growth (as share of GDP) seems unlikely. The government's stimulus efforts to avoid recession in 2009 resulted in a massive spike in bank lending that increased the consolidated banking sector balance sheet by approximately a third. Rather than pull back, bank lending went on to expand an additional 20 % in 2010. Lending outside the banking sector's balance sheet has also grown strongly (García-Herrero and Santabarbara, 2011). These lending trends in themselves should be sufficient to raise concerns about the quality of bank loan portfolios and the need to curtail growth of bank lending in coming years, but there is additionally the Chinese central administration's own declared intention to move away from "excessive" reliance on investment as the engine of growth. An increased share of GDP going to consumption reduces demand for bank loans and drains the household savings currently held as bank deposits. This is in line with the government's objective of allowing the relative importance of banks to decrease in coming years while promoting the profile of securities markets.

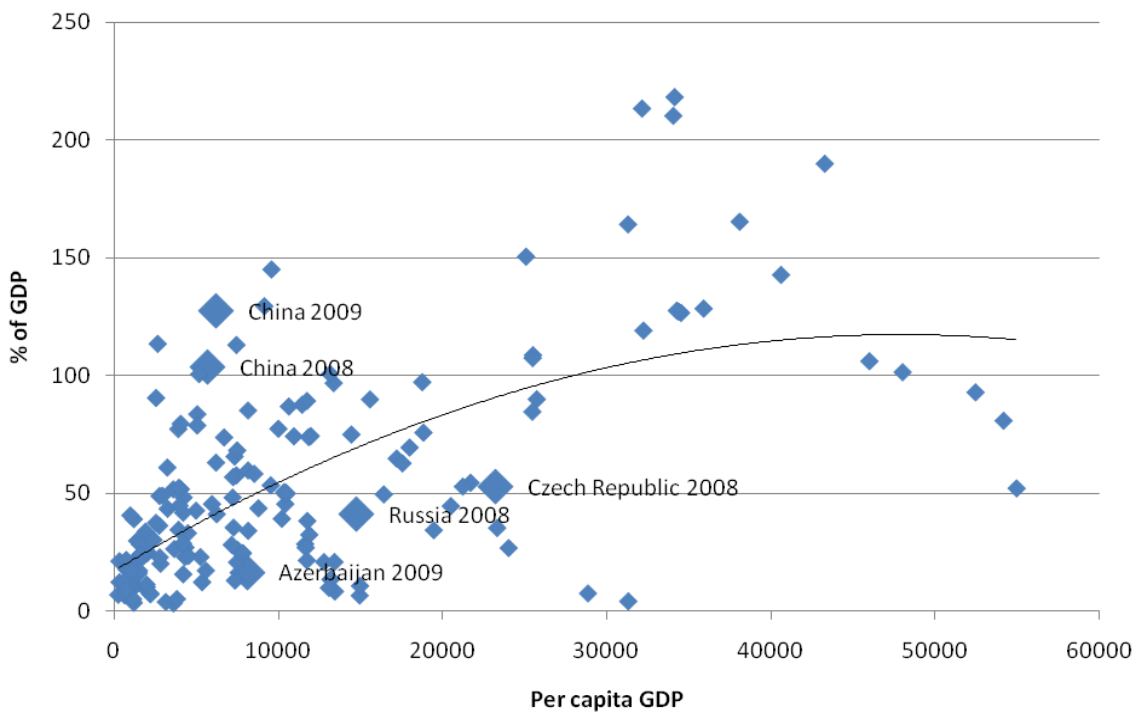
The rest of the paper is structured as follows. In the next section, we analyze the Chinese banking sector in a macroeconomic context, assess its role in China's growth strategy, and compare it to other countries. In the third section, we describe the structure of the banking sector. Section four analyzes the structure of the bank balance sheets and bank performance, as well as other parts of the financial sector such as equity and bond markets. The final section provides concluding remarks.

2 Over-banked China

Even though China can be characterized as a transition economy, its banking system has developed very differently from other transition countries. In most CEE transition economies, foreign-owned banks were allowed to enter the country from the beginning of the transition process and eventually dominate the banking sector. In Russia and several other countries in the Commonwealth of Independent States (CIS), state-owned banks continue to be important players in the sector, but even here, the role of foreign banks has been more pronounced than in China − even in retail banking.

Perhaps the crucial feature that differentiates China from other countries of similar income level, however, is the sheer size of its banking sector relative to the size of the economy. Figure 1 plots domestic credit to private sector (as percentage of GDP) and per capita GDP. It is obvious that there is positive correlation between the level of income and the size of the banking sector. More interestingly, domestic credit (very much associated with lending from domestic banks) is clearly much higher than suggested by China's income level. Thus, a byproduct of the Chinese growth model, which relies heavily on savings and investment, has been the creation of a behemoth banking sector with little room left to further increase its relative size without incurring significant problems such as erosion of loan quality.

Figure 1 Domestic credit to private sector (% of GDP) and per capita GDP (purchasing power parity at 2005 dollars) for 2008 and 2009, as well as quadratic trend.

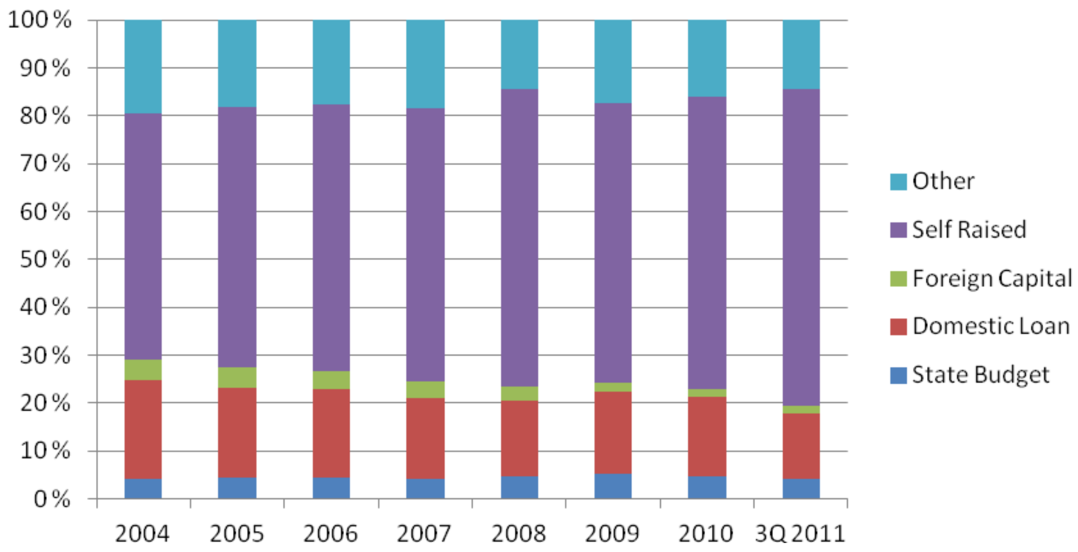


Source: World Bank Development Indicators

The banking sector continues to be the main outside source for financing investment, and bank deposits remain the preferred form of saving for most Chinese companies and households. However, it should be noted that company resources (including retained earnings) constitute the most important source of funds for investment in fixed assets in Chinese companies. Figure 2 shows the evolution in the shares of different investment financing sources between 2004 and 2011. The share of self-raised financing clearly increases over time. At the end of the third quarter 2011, this source of financing accounts for over 65% of all investments. Especially for smaller companies and entrepreneurs other forms of borrowing, e.g. borrowing from family and friends are common in China[2]. We also see that the relative importance of banks has decreased over time relative to the importance of own financing.

Bank financing of investment was RMB 1,278 billion in 2004 and RMB 3,364 billion ($529 billion) at the end of the third quarter 2011. Still, even with a tripling in the period, the relative importance (share of total financing) of the banking sector in investment financing decreased from 20% in 2004 to 14% at the end of September 2011. The proportions of the other sources of funds are relatively minor.

Figure 2 Sources of funds for investments in fixed assets, share of different sources



Source: CEIC (calculated based on monthly data)

Bank loans are the most important source of external funding for the non-financial sector in China. They accounted for 75% of all external funding sources at the end of 2010, and exceeded 80% during the crisis years of 2008 and 2009 when other external sources were difficult to obtain. As we saw in early 2009, the Chinese authorities can turn to bank lending as a policy tool when the need arises. Bonds have become an increasingly important source of financing; their share in external funding has climbed significantly since 2005 (see Table A.7). In general, Chinese bond markets have developed briskly in recent years

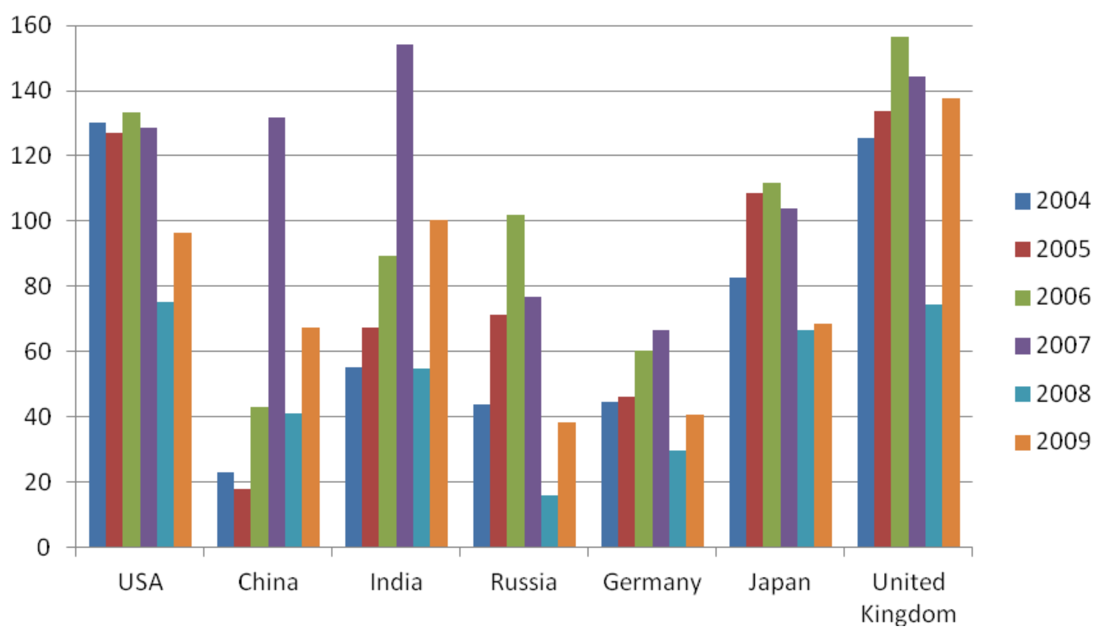
[2] IMF (2011) notes the prevalence of "shadow banking," which consists of both completely unregistered lending activity and more formal institutions such as private equity funds and various wealth management

along with the expressed desire of the authorities to increase international use of the renminbi. Even so, compared to the size of the Chinese banking sector, the local bond market is still in its infancy.

Equity markets were initially established in 1990 in Shanghai and Shenzhen (many Chinese companies are also listed in Hong Kong). China's stock markets have grown in size and importance, and are now comparable in size to other middle-income countries. Bloomberg data (see Figure 3) show the ratio of stock market capitalization to GDP in China was 30% in 2002 and 67% in 2010. In countries such as Russia, Poland, and Germany, the corresponding number was around 40% in 2010. A caveat here is that outstanding shares are not necessarily freely tradable in China's case, i.e. public entities continue to hold majority stakes in listed firms, especially large ones (including banks).

Therefore, Chinese banks have been an important part of a Chinese growth model based on savings and investment. While companies continue to finance the bulk of their investments out of pocket, bank loans remain by far the most important outside source of financing.

Figure 3 Stock market capitalization (% of GDP)



Source: Bloomberg

products. For example, total value of different wealth management products at the end of 2010 was RMB 1,700 billion.

3 Structure of the banking sector

3.1 Institutional development of the Chinese banking sector

The roots of the current Chinese banking sector can be traced to economic reforms launched in the 1970s (Okazaki, 2007). In contrast to the CEE socialist economies, where the first tentative steps in banking liberalizing did not start until mid-1980s, the Chinese authorities carved out four huge banks from the state monobank already in 1979 and 1984 (Feyzioğlu, 2009). The ultimate aim was to support market reforms with the help of a functioning financial system. Chinese market reforms, however, progressed quite slowly and were mirrored in development of the banking sector.[3] Nevertheless, four large specialized banks had been established by 1984:

1. The Agricultural Bank of China (ABC)
2. The Bank of China (BoC)
3. The People's Construction Bank of China, from 1996 onwards the China Construction Bank (CCB)
4. The Industrial and Commercial Bank of China (ICBC)

The names of three of these giant banks broadly described their designated field of operations. The BoC was established to finance foreign trade. All four banks are today exchange listed, yet remain majority-owned by the state.

Allen et al. (2008) report that most of the development of the Chinese financial system in the 1980s actually occurred away from the four big state-owned banks; the action, it seems, was in establishment of banks and other financial institutions in provinces and cities. Local governments helped set up small regional banks in Special Economic Zones, as well as Rural Credit Cooperatives (RCC) in the countryside and Urban Credit Cooperatives (UCC) in cities.

During the 1990s, the banking sector went through a cycle of lending boom and bust associated with a rapid increase in fixed capital investment. The lending boom resulted in a proliferation of non-performing loans (NPLs) as it was common at this time to conduct bank business without particular concern for profit-maximizing and allow local authorities to use banks to finance their own pet projects.

[3] Notably, fledgling market reforms in the Soviet Union also led to establishment of five sectoral banks; Vneshekonbank for foreign trade, Promstroibank for industry and building, Agroprombank for agriculture, Zhilsotsbank for communal services and Sberbank for savings (see e.g. Lane, 2002).

China's membership in the WTO in December 2001 ushered in a new era for Chinese banks. China committed to full opening of its banking sector to foreign competition after a five-year transition period, although to this day e.g. the insurance sector and securities markets are still not completely open to foreign participants. The threat of tougher competition meant that banks, especially state-owned banks, had to become more efficient in their operations. This called for changes in the governance and ownership structures of banks, and more importantly, bank balance sheets had to be strengthened. Simply put, the government had to deal with the NPL issue decisively. Four state-owned asset management companies were established to take remove the accumulated stock of NPLs from the balance sheets of four state-owned banks, and the state provided capital injections to the banks. The process started at the end of 2003 with the establishment of a special entity, *Central Huijin Investment Company,*[4] capitalized with funds drawn from the foreign currency reserves and managed by the State Administration of Foreign Exchange (SAFE). The funds were used to recapitalize the state-owned banks, thus allowing the banks to recognize their NPLs and write down pre-existing capital (Okazaki, 2007). First in line were the BoC and CCB, which received fresh capital infusions amounting to $45 billion in December 2003. In April 2005, ICBC was infused with $15 billion in new capital. Last in line was struggling ABC, which was not recapitalized and reorganized until January 2009 (Okazaki et al., 2011).

3.2 State remains the most important owner of banks

As in other big emerging markets such as India and Russia, the Chinese banking sector is still majority state-owned. The difference is in the extent of state ownership. More than 90% of total banking sector assets are state-owned in China (Economist, 2010), while Vernikov (2009) puts the corresponding figure for Russia at 56%. In general, reforms in the Chinese banking sector have lagged relative to other sectors of the economy.

The Chinese banking sector consists of various types of banks and non-bank financial institutions in institutional formats that have evolved in the course of reforms. Table A.3 lists the most important banks: the top-tier Chinese state-owned commercial banks

[4] Jointly owned by the People's Bank of China, SAFE, and the Ministry of Finance.

(i.e. the largest banks) and the main joint-stock commercial banks forming the second tier of the Chinese banking system.

The large state-owned commercial banks provide nationwide wholesale and retail banking services. These include four specialized banks established in 1984 and the Bank of Communications. All are very large financial institutions even by global standards. At the end of 2010, ICBC was the world's largest bank by market capitalization and the other three large Chinese state-owned banks all ranked in the global top ten (see Table A.1).

The large commercial banks together accounted for 49% of Chinese banking sector assets at the end of 2010 (see Table A.4). Despite their growth, their share declined over the past decade; in 2003, large commercial banks still accounted for 58% of the sector. With the ABC IPO in 2010 (the largest IPO in history, valued at $22.1 billion), all large commercial banks were listed on both the Shanghai and Hong Kong exchanges – a stated objective of the reforms introduced in 2002. The move was also supposed to contribute to improvements in corporate governance and efficiency. Indeed, Berger et al. (2009) show that Big Four banks were the least efficient before the reforms and minority foreign ownership was associated with increased efficiency.

Listing has also influenced other Chinese banks. A study of Liu (2011) on the impact of public listing on performance of Chinese banks finds that profitability increased and NPLs declined during the two-year period preceding IPO. Moreover, public listing in the developed Hong Kong market seems to have even more positive and persistent effects than listing in mainland China.

Despite listing and the presence of foreign investors, all the large commercial banks are still majority state-owned. The share of state and state-owned entities at the end of 2010 was 83.1% in ABC, 70.7 % in ICBC, 67.8 % in BOC, and 60.1 % in CCB. The corresponding number for the Bank of Communications was 32.4 % (for more details, see Table A.2).[5]

Joint-stock commercial banks constitute the second largest subgroup of banks in China. Unlike large commercial banks, joint-stock commercial banks are not majority owned by the central government. Nevertheless, some government influence is present. Owners include private and foreign entities, state-owned enterprises (SOEs), and various

[5] In October 2011, the state investment vehicle Central Huijin Investment, which owns majority stakes in the four largest banks, purchased shares of these banks to prop up their share prices. Even though the amounts purchased were insignificant, the government sent a clear signal it was ready to intervene when necessary.

government agencies. Unlike small banks that usually serve a certain region, joint-stock commercial banks operate nationwide. There are currently twelve joint-stock commercial banks, of which eight are exchange listed. The rest are still relatively young as they were only established in the first half of the 2000s. The share of joint-stock commercial banks in the whole Chinese banking market has increased in recent years, largely at the expense of the largest state-owned banks. Their share of the consolidated balance sheet of Chinese banks reached 15.6% in 2010.

City commercial banks are smaller than joint-stock commercial banks. They typically operate in their local banking markets and focus on serving small and medium-sized businesses.[6] These banks, the successors to urban credit unions, were created in the late 1990s as part of a government effort to improve the efficiency of credit cooperatives. By 2009, only eleven urban credit cooperatives remained as city commercial banks occupied the market. By the end of 2010, there were 147 city commercial banks. The share of city commercial banks in the total banking sector assets continues to grow, accounting for 8.2% of the sector in 2010.

Rural financial institutions have traditionally included rural commercial banks, rural cooperative banks, and rural credit cooperatives (RCCs). New types of rural financial institutions have also emerged recently. These include village or township banks, lending companies, and rural mutual cooperatives. Rural financial institutions account for about 10% of banking sector assets, a proportion that has not changed significantly in recent years. Within the traditional rural financial institutions, however, reforms have diminished the role of rural credit cooperatives, putting the growth emphasis on rural commercial banks.[7] Rural credit cooperatives were established in the 1950s separate from the monobank. Starting in the 1960s, there were several unsuccessful attempts at reforming RCCs. It remains unclear if they are supposed to function as true cooperatives or commercial banks and exactly what their responsibilities are to various levels of government (OECD, 2005). Given their vague mandate, RCCs have often encountered serious financial problems. Prior to 2003, when significant reforms were implemented, there were about 40,000 RCCs. By 2010, that number had dwindled to 2,646. Nevertheless, they remain the most influential rural financial institution, accounting for almost 7% of the banking sector assets.

[6] Before 2006, they were only allowed to operate in their headquarter cities (Chong et al., 2010).
[7] CBRC data show there were 22 rural commercial banks at the end of 2008 and 85 at the end of 2010. Their share in total banking sector assets rose from 1.5 % in 2008 to 2.9 % in 2010.

Despite their rapid growth in recent years, new-type rural financial institutions still only account for a tiny share of total banking sector assets.[8] These entities were established after the CBRC relaxed its market-entry policy in December 2006 with a view to improving the quality of rural financial institutions and enhancing competition (OECD, 2010). Lower capital and fewer shareholders were required for their foundation (Okazaki et al., 2011). At the end of 2010, there were 395 new-type rural financial institutions, up from just 172 a year earlier. In 2010, these institutions provided RMB 60.09 billion in loans, more than three times what they issued in 2009. The majority of these loans went to rural and agricultural use and SMEs. Almost 90% of new-type rural financial institutions are village or township banks (VTBs). While the operation of VTBs is similar to that of commercial banks, they face fewer restrictions in setting their lending rates (KPMG, 2010).

The development of rural financial institutions includes focus on improving corporate governance and optimizing work flows. The first small- and medium-sized rural financial institution (Chongging Rural Commercial Bank) was listed on the Hong Kong stock exchange in December 2010. In general, the rural banking sector is expected to develop relatively rapidly in the coming years as rural areas have become a policy priority for the central government.

Another institution that plays significant role in serving rural customers is the Postal Savings Bank of China. Established in 2007 out of the State Post Bureau, it is today the fifth largest bank in terms of customer deposits. About 70% of its 37,000 branches are located in county seats or rural areas.

China differs markedly from other former socialist countries in that foreign banks only hold about 2% of banking sector assets in China. As noted, the CEEs moved quickly to encourage significant foreign presences in their banking systems through the privatization of state-owned banks and greenfield investment (Bonin et al., 2005). Yet at the end of 2010, there were only 40 locally incorporated foreign banks and 90 foreign bank branches in China. Foreign banks operated in 45 cities in 27 provinces in 2010, up from just 20 cities in 2003.

Initially, foreign banks were only allowed to offer foreign currency services. In 2004, their scope was expanded to local currency services for Chinese enterprises in spe-

[8] The CBRC started to report them as a separate category with the Postal Savings Bank in 2010.

cific areas. In December 2006, in connection to WTO agreement, foreign banks were finally allowed to enter the retail market. There are still restrictions on foreign investors: the maximum foreign share for an individual investor in commercial banks is 20% and total foreign investment is 25%. There are also relatively high capital requirements for bank branches in comparison to domestic banks to encourage foreign banks to incorporate locally (Herd et al., 2010). KPMG (2010) notes that locally incorporated foreign banks face a deadline in 2011 to reduce their loan-to-deposit ratios to 75 %. It should also be noted that many of the banks where the state holds a majority stake also have foreign owners. From the Chinese side, foreign banks' strategic ownership has been hoped to provide improvements in corporate governance and technical efficiency. Foreign shareholders, in turn, are seeking easier access to the Chinese banking market. The many restrictions placed upon foreign banks described above provide a strong incentive to seek alternative avenues to enter this market, which still has high growth potential.

Beyond traditional banks, China also has policy banks. These were established during the second stage of reforms in 1994 with the objective of separating policy lending from commercial lending. The Export-Import Bank of China and the Agricultural Development Bank of China are still policy banks, despite the fact that their roles have become more business oriented. The largest policy bank, China Development Bank, has been restructured into a commercial joint-stock banking institution. It can now only accept deposits from corporate clients. This process of transformation continued in 2010 with issues including securing funding sources and determining credit ratings for bond issuance (CBRC Annual Report, 2010). Despite their specific functions, these banks play a significant role in the banking system since they account for 8% of total banking sector assets (2010).

There are several types of non-bank financial organizations in China. In 2010, their share in total assets of banking institutions reached 2.2%. These organizations include trust companies, finance companies of enterprise groups, financial leasing companies, auto financing companies, as well as the very new consumer finance companies. At the end of 2010, there were four consumer finance companies registered, one foreign-owned. During 2010, these companies extended RMB 58.7 million in credit to cover over 7,500 transactions.

Trust companies have attracted huge attention during 2011 as many banks shifted part of their loans off their balance sheet into financial products offered by these companies. This development is an outgrowth of government efforts to limit the pace of new lending. The *Economist* (2011) estimates that financial products worth over RMB 2 trillion were sold in 2010. As such off-balance-sheet items were earlier not treated as loans, it enabled banks to exceed their official quotas for new lending. China's financial regulators recently wearied of this interpretation and ordered banks to move these off-balance-sheet loans back onto their books.

Despite the large variety of financial institutions present in China, about half of the market is still controlled by the large state-owned banks. However, their market share has been decreasing over time. Competition increased with reforms as the large state-owned banks moved out of their traditional specializations and joint-stock banks were established (OECD, 2005). This development is mostly visible in urban areas as reforms caused commercial banks to largely withdraw from lending activities in rural areas in the late 1990s. Consequently, rural households were left with very limited access to credit. Comprehensive reform of the rural credit system was implemented starting from 2003 to improve this situation, and various types of institutions were established to serve the heterogeneous needs of rural borrowers. To increase the quality of services and competition, foreign investors have also been encouraged to participate. Foreign investors in general expect the Chinese market to growth further, but it is an open question as to how much foreign banks will be able to increase market share as domestic banks become more competitive (OECD, 2010).

4 Operations and performance

This section gives an overview of the uses and sources of funds of Chinese banks and bank performance. We start by analyzing the consolidated balance sheets of banks.

4.1 Sources and uses of funds

By and large, Chinese banks are involved in traditional banking services. This is reflected in the structure of their balance sheets. On the funding side, deposits from enterprises and households are the single most important liability class. At the end of 2009, 68.3% of commercial bank liabilities were deposits from non-financial institutions and households; total liabilities to non-financial institutions and households were 70.0% (People's Bank of

China, 2010). At the end of 2004, deposits still constituted 72.6% of total liabilities, but in recent years bank funding has begun to shift away from deposits. As the importance of deposits from the public has decreased, the role of other financial institutions has increased. It appears that interbank markets have become more important as a source of funds, especially for smaller banks and other financial institutions that benefit from funds provided by larger banks. At the end of 2009, 5.6% of bank liabilities were to other financial institutions. At the end of 2004, the corresponding share was only 2.0%.

There are many reasons for reliance on deposits in Chinese bank funding. The Chinese interbank market still does not function as well as in advanced market economies, but more importantly, the Chinese savings rate at the aggregate level remains very high and capital controls effectively bar most Chinese households and enterprises from investing abroad. Although outside the scope of this paper, one motivation for high household savings is to build up a buffer to cope with e.g. health emergencies and education costs. Moreover, China's pension system is still quite primitive, so many need to save for their old age. Within China, banks offer a low-risk investment vehicle. Ma and Yi (2010) report that the high Chinese savings rate is a consequence of the relatively high savings in all sectors of the economy: households (23.4% of GDP in 2008), enterprises (18.8%), and the public sector (11%). This is quite atypical: in most countries, a high savings rate in one sector implies lower savings rates elsewhere in the economy. Indeed, gross national savings have exceeded 50% of GDP for several years now. In the UK and US, in contrast, the gross national savings rates have been below 20% for at least two decades.

Bank lending grew between 2006 and 2010 at the average rate of 20% a year, thanks in part to the government stimulus program in the face of the global economic recession. Loans to non-financial companies accounted for around 70% of new loans. State-owned commercial banks (SOCBs), traditionally the biggest loan providers, accounted for 43% of all new loans issued in 2009 (their share was 51% in 2001). SOCBs accounted for about half of the total banking sector loan stock at the end of 2010. This proportion corresponds to their share in total sector assets.

Even though the Chinese banking sector is huge for a middle-income nation, bank lending is heavily skewed to state-owned companies. Allen et al. (2008) note that the size of China's banking system, in terms of total bank credit to non-state sectors, was 31% of GDP in 2005. This figure is not too different from the average of other major emerging economies with a weighted average of 32% of GDP. Looking at total bank credit, including loans to state sectors, the ratio of China's bank credit to GDP rises to 110% − a level higher than even in countries with German-origin legal systems (weighted average 106%). The difference between total bank credit and private credit suggests that most of the bank credit is issued to companies that are ultimately owned by the state. Also Okazaki et al. (2011) report that bank lending in the recent years has mostly gone to large SOEs. In 2009, about 50% of SOCB loans were extended to large SOEs. Private enterprises received some 14% of total lending provided by the banking sector.

4.2 Bank performance

The reforms implemented since 2002 significantly helped strengthen bank balance sheets, and thus profitability. Podpiera (2006) assesses that in the four state-owned banks the share of NPLs in total loans was approximately 20% in 2003. However, there was great variation in the balance-sheet quality of the four large state-owned banks. The share of NPLs was highest at ABC (30.8%) and lowest at CCB (9.1%). This wide difference in balance-sheet quality largely explains why restructuring of the big banks proceeded at different speeds. As Table A.4 in the Appendix confirms, the ratio of NPLs in total loans for major commercial banks decreased from over 23% in 2002 to 1.2% at the end of 2010. The highest proportion of NPLs is found in rural commercial banks (2%) and the lowest in foreign banks (0.5%). Following the credit boom in 2009 and 2010, deterioration of asset quality appears inevitable.

The reforms included capital injections and enabled banks to use financing sources from the markets, so they became better capitalized. The average capital adequacy ratio (CAR) reached 12.2% at the end of 2010, a clear increase in comparison to previous years. Indeed, by the end of 2009, every commercial bank fulfilled the regulatory minimum CAR of 8%. This is a significant improvement from 2003, when only eight banks, accounting for 0.6% of total banking sector assets, met this requirement. In May 2011, the CBRC announced an increase in the CAR minimum to 11.5% for the banks of "systemic importance" and 10.5% for other banks. These changes should be implemented gradually from the beginning of 2012.

Chinese banking is profitable and total profits of the sector have grown rapidly in recent years thanks to the booming economy. Banks benefit from the large spread between loan and deposit rates still determined by the central bank. Prior to 2004, lending rates of commercial banks were allowed to deviate from the benchmark rate set by the central bank by no more than 10%. After 2004, the bands were widened and currently commercial banks have a bit more freedom in setting rates as commercial bank lending rates are only subject to a floor and deposits rates to a ceiling (OECD, 2010). The bank loan interest rate margins measured by the spread between the weighted average interest rate on bank loans and the benchmark interest rate have been decreasing over time. In the first half of 2009, it was about 60 basis points (Herd et al., 2010). Despite this development, the major source of bank income remains net interest income, accounting for about two-thirds of bank income in 2010. Further important sources are investment returns and fee-based income. Okazaki et al. (2011) estimate that net interest income accounted for 82% of the operating profit in the major listed commercial banks and another important source was net fee-based income (13%). The authors attribute this to the increase of loans.

Total after-tax profit reached RMB 899.1 billion in 2010, a one-third increase from 2009. The increased profit contributed to higher profitability ratios. Return on equity (ROE) went up by more than 1% to 17.5%; return on assets (ROA) was 1%. Large commercial banks accounted for about 57% of total banking sector profits, well above their share of total banking sector assets (49%). Their share in banking sector profits has not changed significantly in recent years, however. Rural credit cooperatives accounted for 2.6% of banking sector profits, while their share of sector assets was almost 7%.

5 Equity and bond markets as alternative sources of financing

In addition to traditional bank loans, non-financial companies in China have started to benefit from other sources of external financing. This has been the case especially in the recent years. The significance of capital markets was explicitly recognized in the document entitled “Opinions of the State Council on Promoting Reform, Opening and Steady Growth of Capital Markets” issued by the State Council in 2004. This document also served as a guideline for later reforms. In general, the development of the Chinese securities markets has followed a top-down pattern that has been controlled and designed to serve the needs of state (Allen and Shen, 2011).

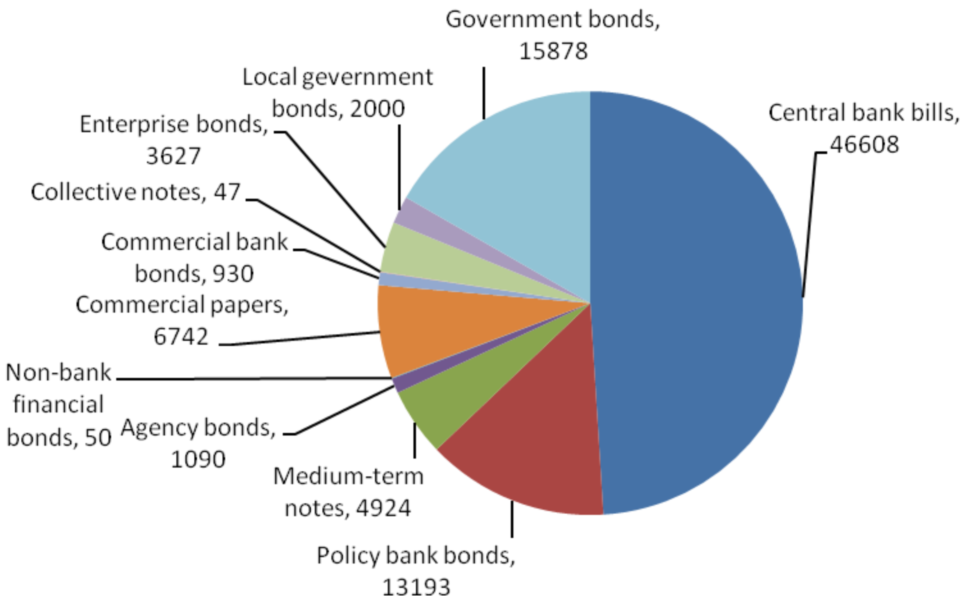
The most significant alternative source of external financing is bond issuance. Its share of external funding of the non-financial sector increased from 1% in 2004 to over 10% in 2010 (see Table A.7). Bond issues rose from RMB 2.7 trillion in 2004 to RMB 9.5 trillion in 2010, and have created a substantial primary bond market. Bond trading is a somewhat dull business as most bonds are simply held by banks, and even with the increase in issuance, the ratio of private bond market capitalization to GDP in China only reached 18% in 2009. In developed countries with relatively bank-centered financial sectors such as Japan and Germany, this ratio was twice as high. In the US, it reached 135% of GDP.[9] Public bond market capitalization, on the other hand, stood at 35% in China, which is comparable to Germany and US, but significantly lower than in Japan. Part of this reflects different levels of public debt.

Even though the total size of Chinese bond market is comparable to other emerging markets, it is still dominated by government bonds (Herd et al., 2010). At the end of June 2011, the government accounted for almost 77% of the local currency bond market. Moreover, the corporate bond market is dominated by state-owned companies. Of the current top 50 corporate issuers, which in total account for 65% of all outstanding corporate bonds, 42 are state-owned (Asian Development Bank, 2011).

Figure 4 provides more detailed picture concerning bond issuance by category of issuers. The central government, central bank and policy banks are the most significant issuers of new bonds. Enterprise bond issues and commercial papers account for about 11% and medium-term notes (MTN) some 5% of bond issues. The corporate segment remains least developed part of the bond market, due in part to strict regulation. A 100% guarantee by a state bank is typically required to issue a corporate bond. In the case of commercial paper and MTNs, on an acceptable credit rating is needed (Pessarossi and Weill, 2011).

[9] All the figures come from Beck and Demirgüç-Kunt (2009) Financial Structure Dataset updated in November 2010.

Figure 4 Bonds issued in 2010 by category (RMB 100 million)



Source: China Central Depository & Clearing Company, Annual Report 2010 and CEIC

Yet another possible source of financing for non-financial companies is equity issuance. Its share in financing of companies is 5% on average, a proportion that has not changed significantly in recent years. Reforms have also improved legislation governing stock markets and brought China closer into line with accepted international practice (Herd et al., 2010).

China has two major stock exchanges, Shanghai and Shenzhen, as well as three commodity futures exchanges and a financial futures exchange. These markets are large in size: at the end of 2010, the Chinese stock market accounted for 7.2% of the world market capitalization, making it the third biggest stock market after the US (29.7%) and Japan (7.7%).[10] Even so, China's stock market is small in the economic sense as they do not sufficiently serve companies in raising funds and play no significant role yet in the Chinese financial system (Allen and Shen, 2011).

A flood of IPOs has boosted the number of listed companies. At the end of 2010, there were already 2,063 companies traded on the Shanghai and Shenzhen stock exchanges (see Table A.8). Here, as well as in the other segments of the Chinese financial sector, the state still plays a significant role because the majority of these companies are state-owned.[11] This fact has to be taken into account when assessing market capitalization fig-

[10] Based on Bloomberg data.
[11] Allen and Shen (2011) mention different studies that estimate the share of SOEs at 65% or higher.

ures. The growth in stock market capitalization has been impressive; total stock market capitalization at the end of 2010 reached RMB 26,542 billion (USD 4,028 billion), or almost seven times the corresponding value at the end of 2002. These figures should be viewed with some caution as they include shares held by the state or state-controlled entities. Such shares are not traded, although potentially they could be.[12] Freely tradable shares accounted for only a third of total market capitalization in 2002. The proportion of freely tradable shares has risen significantly, especially in 2009. At the end of 2010, they accounted for 73% of total stock market capitalization.

Some other features that characterize Chinese stock markets are similar to other emerging markets. Prices of traded stocks are highly volatile, which is reflected in market capitalization trends. On-year changes in capitalization during the 2003−2010 period vary from -63% to +266%. Moreover, trading is concentrated to the largest companies. The three largest listed companies on the Shanghai stock exchange (PetroChina, ICBC and ABC) accounted for over 22% of total market capitalization in April 2011. Taking into account all of these specific features, Allen and Shen (2011) conclude that prices on mainland markets do not provide a good picture of the value of traded companies.

6 Concluding remarks

The Chinese financial sector is truly in a class of its own, if for no other reason that the size of its banking sector. Yet the Chinese stimulus packages of 2009 and 2010 boosted bank lending and further increased the vulnerabilities of the Chinese banking sector. While the most likely forecast scenarios suggest strong economic growth will keep the stock of NPLs in check, continuous increases in lending inevitably exacerbate risk confronting the banking sector. Given the need to rein in lending and the recent policy emphasis on cooling the economy and bringing down inflation, we expect the era of rapid growth in the Chinese banking system to be over.

Chinese bond and equity markets are comparable in size to those found in more mature economies, but participation of foreign investors remains limited. On recent years the share of free float in the equity markets has increased clearly, indicating a larger role for the markets in setting share prices. While Chinese companies still rely more on bank

[12] Current legislation enables trading of these shares.

loans and self-financing for investment, capital markets will increase their importance. As capital controls are relaxed, foreign participation will increase. On the other hand, Chinese investors themselves would like to diversify their risk outside China, so the net effect of looser capital controls on availability of capital to Chinese companies is unclear.

An overriding theme of this overview has been the prevalence of state influence in the Chinese financial sector. Despite significant reforms, the state and various public organizations still own controlling shares in the largest commercial banks. Recent experience from the lending boom of 2009 and 2010 shows that when the authorities decide that the economy needs some extra liquidity, the largest banks − even if they now are partially privately owned and listed on the stock exchange − comply. It remains to be seen whether this is in the interest of all shareholders. The state is also present on the lenders' side; it is estimated that about half of state-owned commercial bank lending still goes to state-controlled companies. In this way, the banking system serves as a tool of maintaining the old economic system and its large state-owned companies. This arrangement may prove a drag on Chinese growth in the longer run.

If the Chinese financial system is to develop further, the links between the state, banks, and companies need to be made explicit through increased transparency. An orderly approach to this change on the part of the authorities would reduce the repercussions of capital account liberalization and make the transition easier.

References

Allen, Franklin, Jun Qian, Meijun Qian and Mengxin Zhao (2008). Review of China's financial system and initiatives for the future. Wharton Financial Institutions Center Working Paper No. 08-28.

Allen, William T. and Shen Han (2011). Assessing China's Top-Down Securities Markets. NBER Working paper 16713.

Asian Development Bank (2011). Asia Bond Monitor, September 2011.

Beck, Thorsten and Asli Demirgüç-Kunt (2009). Financial Institutions and Markets across Countries and over Time: Data and Analysis. World Bank Policy Research Working Paper No. 4943.

Berger, Allen, Iftekhar Hasan and Mingming Zhou (2009). Bank ownership and efficiency in China: What will happen in the world's largest nation? Journal of Banking and Finance 33, p.113-130.

Bonin, John P., Iftekhar Hasan and Paul Wachtel (2005). Bank performance, efficiency and ownership in transitition countries. Journal of Banking & Finance vol. 29, No 1, 31-53.

China Banking Regulatory Commission (2011). Annual Report 2010.

China Central Depository & Clearing Co., Ltd. (2011). New Horizon. Annual Report 2010.

Chong, Terrence Tai Leung, Liping Lu and Steven Ongena (2010). Does banking competition alleviate or worsen credit constraints faced by small and medium enterprises? Evidence from China. European Banking Center Discussion Paper No. 2011-001, Tilburg.

Economist (2010). Special Report on Banking in Emerging Markets, May 13, 2010.

Economist (2011). Trust Belt, February 12, 2011.

Feyzioğlu, Tarhan (2009). Does good financial performance mean good financial intermediation in China? International Monetary Fund Working Paper 09/170, Washington D.C.

García-Herrero and Santabarbara (2011). China's banking system risks after the 2008-10 stimulus package and the housing boom. Mimeo.

Herd, Richard, Charles Pigott and Sam Hill (2010). China's financial sector reforms. OECD, Economic Department Working Papers No. 747.

International Monetary Fund (2011) People's Republic of China: Financial System Stability Assessment. IMF Country Report No. 11/321

KPMG (2010). Mainland China Banking Survey 2010. KPMG, Hong Kong.

Lane, David (2002). Introduction. In Lane, David (ed.) Russian Banking − Evolution, Problems and Prospects, Edward Elgar Publishing, Cheltenham.

Liu, Bin (2011). The effects of public listing on the performance of banks in China. Hong Kong Institute for Monetary Research WP 07/2011.

Ma, Guonan and Wang Yi (2010). China's high saving rate: Myth and reality. BIS Working Paper No 312. Basel.

OECD (2005). OECD Economic Surveys: China. Volume 2005/13.

OECD (2010). OECD Economic Surveys: China. Volume 2010/6.

Okazaki, Kumiko (2007). Banking system reform in China – The challenges of moving toward a market-oriented economy. RAND Occasional Paper, Santa Monica.

Okazaki, Kumiko, Masazumi Hattori and Wataru Takahashi (2011). The challenges confronting the banking system reform in China: An analysis in light of Japan's experience of financial liberalization. Institute for Monetary and Economic Studies, Bank of Japan, Discussion Paper 2011-E-6, Tokyo.

People's Bank of China (2010). The People's Bank of China Quarterly Statistical Bulletin 2010-2. Beijing.

People's Bank of China (2005−2010). The People's Bank of China Monetary Policy Reports. Various issues. Beijing.

Pessarossi, Pierre and Laurent Weill (2011). Choice of Corporate Debt in China: The Role of State Ownership. Mimeo.

Podpiera, Richard (2006). Progress in China's Banking Sector Reform: Has Bank Behavior Changed? International Monetary Fund Working Paper 06/71, Washington D.C.

Vernikov, Andrei (2009). Russian banking: The state makes a comeback? Bank of Finland Institute for Economies (BOFIT) Discussion Paper 24/2009.

Appendix

Table A.1 Thirty largest banks in the world by market capitalization at the end of 2010

Rank	Bank	Country	Market cap (USD billion)
1	Industrial and Commercial Bank of China (ICBC)	China	233.69
2	China Construction Bank (CCB)	China	225.89
3	HSBC	UK	184.98
4	Wells Fargo	USA	164.84
5	JP Morgan Chase	USA	163.31
6	Bank of China	China	142.64
7	Citigroup Inc.	USA	140.3
8	Agricultural Bank of China (ABC)	China	135.26
9	Bank of America (BoA)	USA	133.38
10	Itaú Unibanco	Brazil	94.45
11	Goldman Sachs	USA	92.62
12	Banco Santander	Spain	92.32
13	BNP Paribas	France	80.66
14	Commonwealth Bank of Australia	Australia	80.12
15	Mitsubishi UFJ	Japan	76.52
16	Sberbank	Russia	76.48
17	Royal Bank of Canada	Canada	74.09
18	Lloyds Banking	UK	73.66
19	Royal Bank of Scotland	UK	69.09
20	Westpac	Australia	69.05
21	Standard Chartered Bank	UK	65.32
22	Banko Bradesco	Brazil	64.93
23	Toronto Dominion Bank (TD Bank)	Canada	64.58
24	UBS AG	Switzerland	63.55
25	ANZ Banking Group Australia	Australia	61.6
26	Scotiabank	Canada	58.93
27	Bank of Communications (BoCom)	China	53.13
28	American Express (AmEx)	USA	53.03
29	Banco do Brasil	Brazil	52.51
30	National Australia Bank	Australia	52.22

Source: http://www.banksdaily.com

Table A.2 Ownership of large commercial banks at the end of 2010

Bank	Name of shareholder	Nature of shareholder	Type of shares	Share-holding (%)	Total state ownership	Total number of shares held
Agricultural Bank of China (ABC)	Central Huijin Investment Ltd.	State-owned	A	40.03	83.13	130 000 000 000
	Ministry of Finance of the People's Republic of China (MOF)	State-owned	A	39.21		127 361 764 737
	Hong Kong Securities Clearing Company Nominees Ltd.	Overseas legal entity	H	8.89		28 889 057 076
	SSF	State-owned	A	3.02		9 797 058 826
	Ping An Life Insurance Company of China, Ltd.	Other	A	0.44		1 441 773 826
Industrial and Commercial Bank of China (ICBC)	Central Huijin Investment Ltd.	State-owned	A	35.4	70.7	123 641 072 864
	Ministry of Finance of the People's Republic of China (MOF)	State-owned	A	35.3		123 316 451 864
	HKSCC Nominees Limited	Foreign legal person	H	24.5		85 383 012 022
	ICBC Credit Suisse Asset Management Co., Ltd.	Other dom. Entity	A	0.3		1 053 190 083
	Ping An Insurance (Group) Company of China Ltd.	Other dom. Entity	A	0.3		873 259 091
Bank of China (BOC)	Central Huijin Investment Ltd.	State-owned	A	67.55	67.8	188 553 352 005
	HKSCC Nominees Limited	Foreign legal person	H	28.15		78 587 816 818
	Li Ka Shing	Foreign natural person	H	1.01		2 823 470 087
	The Bank of Tokyo-Mitsubishi UFJ Ltd.	Foreign legal person	H	0.19		520 357 200
	Asian Development Bank	Foreign legal person	H	0.18		506 679 102
China Construction Bank (CCB)	Huijin	State-owned	A and H	57.09	60.09	142 745 374 428
	HKSCC Nominees Limited	Foreign legal person	H	19.79		49 481 779 782
	Bank of America	Foreign legal person	H	10.23		25 580 153 370
	Fullerton Financial	Foreign legal person	H	5.65		14 131 828 922
	Baosteel Group	State-owned	A and H	1.41		3 528 860 498
Bank of Communications (BoCom)	Ministry of Finance of the People's Republic of China (MOF)	State-owned	A and H	26.52	32.36	14 921 230 045
	HKSCC Nominees Limited	Foreign-owned	H	21.93		12 335 266 807
	The Hongkong and Shanghai Banking Corporation Ltd.	Foreign-owned	H	18.63		10 482 252 967
	Capital Airports Holding (Group) Company	State-owned	A	2.01		1 133 264 625
	State Grid Asset Management Company Ltd.	State-owned	A	0.92		519 161 972

Sources: Various bank websites

Table A.3 China's banking industry

Commercial bank categories
State-owned commercial banks (SOCBs)
Joint-stock commercial banks (JSCBs)
City commercial banks
Rural commercial banks
Foreign banks

Major commercial banks, SOCBs and JSCBs
State-owned commercial banks
Industrial and Commercial Bank of China (ICBC)
Agricultural Bank of China (ABC)
Bank of China (BOC)
China Construction Bank (CCB)
Bank of Communications (BoCom)
Joint-stock commercial banks
CITIC Industrial Bank
Everbright Bank of China
Huaxia Bank
Guangdong Development Bank
Shenzhen Development Bank
China Merchants Bank
Shanghai Pudong Development Bank
Industrial Bank
China Minsheng Banking Co.
Evergrowing Bank
China Zheshang Bank

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