

The Transformation of China from an Emerging Economy to a Global Powerhouse

James R. Barth, Gerard Caprio Jr., and Triphon Phumiwasana

Abstract Throughout the past three decades of fast growth, China has undergone tremendous structural changes in its economy and financial system. This chapter examines China's evolving financial landscape so as to assess whether it can catch up with or even drive economic growth. China has achieved remarkable growth over the past quarter of a century despite a relatively inefficient financial system. Just as the public sector around the world has not proved to be an efficient manager of enterprises, it also has not been an efficient manager of banks. A solution that would seem to work in theory would be to grow the private sector's role in the banking system, using banks that operate on market principles as a way to continually starve inefficient enterprises of credit, while supplying credit to the productive enterprises. Finding a way to make this work in practice will require both finesse and good fortune on a scale commensurate with China's growing importance in the world economy.

Keywords Bank · Banking sector · Financial market · Big Four · GDP · Economic growth · Financial system · Trade · Renminbi · Exchange rate · India · Foreign exchange reserve · Non-performing loan

1 Introduction

China has captured the attention of the world with its unprecedented growth for such a big country during the past 30 years. At an average rate of 9.7%, China's GDP has grown almost three times the world average. In 2007, China was the fourth largest country in the world, behind only the United States, Japan, and Germany.¹

¹ China ranks fourth when GDP is measured on the basis of exchange rates but second on a purchasing-power basis.

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If such rapid growth continues, China's GDP will be larger than that of the top three countries in the not-too-distant future. The pace of economic growth coupled with limits on population growth, moreover, has enabled China to double its GDP per capita three times since 1978. This was the year Vice Premier Deng Xiaoping initiated China's transition from a centrally planned economy to a socialist market economy, 2 years after the death of Chairman Mao Zedong.

Throughout the past three decades of fast growth, China has undergone tremendous structural changes in its economy. There has been significant and continuing industrialization, urbanization, and integration into the world economy. The financial system has also undergone major changes, with the People's Bank of China (PBOC) ending its monopoly of the banking sector and being recast as the nation's central bank in the late 1970s and early 1980s. At the same time, four state-owned commercial banks (SOCB) (the so-called Big Four)² were established to take over the role of the PBOC in allocating credit throughout the economy. In the mid-1990s, three policy development banks were established to relieve the Big Four of the responsibility of making loans to implement the policies of the government, thereby enabling them to operate more fully as true commercial banks.

Beginning in the late 1990s, still further changes in the financial system occurred. The Big Four had accumulated enormous non-performing loans (NPLs) as a result of their earlier policy-directed lending, so the government undertook a series of actions to address this problem. These actions became more urgent when China became a member of the World Trade Organization (WTO) in December 2001 and committed to fully opening up its banking sector to foreign firms by December 2006. The actions taken over several years sufficiently improved the financial condition of three of the Big Four for them to go public in 2005 and 2006, with the last bank doing so being the biggest initial public offering (IPO) in history up to that time.

Other changes in the financial system took place as well. In the early 1990s, two stock exchanges were established: one in Shanghai and the other in Shenzhen. Laws were also enacted establishing three new financial regulatory agencies in the 1990s and early 2000s: one each to oversee the banking, securities, and insurance industries. This frees the PBOC of the responsibility to supervise these financial sectors so that it can focus on monetary policy. While still more changes will take place, China has already implemented many reforms to improve the functioning of the overall financial system in an attempt to promote continued and sustained growth in the economy.

The purpose of this chapter is to examine China's evolving financial landscape so as to assess whether it can catch up with or even drive economic growth. China has achieved remarkable growth over the past quarter of a

² The Big Four refers to the Industrial and Commercial Bank of China (ICBC), the Agricultural Bank of China (ABC), the Bank of China (BOC), and the China Construction Bank (CCB). In 2007, China Banking Regulatory Commission (CBRC) began including the Bank of Communications (BOCOM), the fifth largest bank, among state-owned commercial banks (SOCBs) in their statistical reports.

century despite a relatively inefficient financial system. The allocation of credit has not yet been based primarily on the basis of risk-and-return trade-offs despite the shift away from a command and control economy to a more market-oriented economy. The financial system, moreover, is imbalanced in the sense that it is dominated by the banking sector, which to a large degree means the Big Four, with the bond and stock markets still relatively underdeveloped. Firms are, therefore, mainly dependent on bank loans and retained earnings to finance working capital and investment. At the same time, economic growth is also imbalanced in the sense that it is driven largely by investment and exports, with consumption playing a fairly modest role.

These imbalances in the real and financial sectors are interrelated insofar as the growth in exports has resulted in current account surpluses that have led to substantial foreign currency inflows. This, in turn, has contributed to rapid growth in the money supply and bank credit as the foreign currency is exchanged for domestic currency. This growth has been limited to some extent by sterilization actions in which the PBOC has sold relatively low-yielding bonds of its own to the banks. To lessen the need for those actions, China could allow its currency to appreciate far more than it has done recently to reduce exports. A side benefit of doing this would be the need to sell fewer bonds to banks which would improve their net interest margins because the interest rate on the PBOC bonds is significantly lower than the rate on loans. However, such an appreciation could seriously weaken exporting firms and thereby lead to unemployment and more NPLs for banks that had lent to these firms. A still bigger and related problem is the build-up in investment that is the number one driver in growth. There are already concerns that there is an investment “boom” that may soon collapse into a “bust,” which if it happens will reduce economic growth and create even more NPLs at banks. All these issues will be explored in this chapter.

The plan of the remainder of this chapter is as follows. The second section provides a brief overview of China’s role in the world economy compared to other select countries. The third section examines the sources of China’s economic growth and the unbalanced nature of that growth. The fourth section discusses the opening of China’s economy to the world both in terms of the current account and the capital account, including the implications of the recent and substantial cross-border inflow of funds with a relatively pegged exchange rate regime. The fifth section focuses on the financial system, with special emphasis on the banking sector and the potential problems it presents for sustaining China’s economic growth. The last section provides a summary and conclusions.

2 An Overview of China’s Economy and Financial System

All the talk about China being the fastest-growing economy today, while certainly true, requires a somewhat broader historical perspective. As Table 1 shows, in 1820 China was not only the biggest country in terms of population but also the biggest in terms of GDP. At that time, India was the second biggest

Table 1 Top 10 leading economies, 1820 and 2007

| 1820, share of world total | | | 2007, share of world total | | |
|----------------------------|------|------------|----------------------------|------|------------|
| (In percent) | GDP | Population | (In percent) | GDP | Population |
| China | 28.7 | 35.7 | United States | 24.5 | 4.6 |
| India | 16.0 | 19.6 | Japan | 7.8 | 2.0 |
| France | 5.4 | 2.9 | Germany | 5.9 | 1.3 |
| U.K. | 5.2 | 2.0 | China | 5.8 | 20.3 |
| Prussia | 4.9 | 4.2 | U.K. | 4.9 | 0.9 |
| Japan | 3.1 | 2.9 | France | 4.5 | 0.9 |
| Austria/ Hungary | 1.9 | 1.3 | Italy | 3.7 | 0.9 |
| Spain | 1.9 | 1.1 | Spain | 2.6 | 0.7 |
| US | 1.8 | 0.9 | Canada | 2.5 | 0.5 |
| Russia | 1.7 | 1.1 | Brazil | 2.3 | 2.9 |
| | | | India (12th) | 1.9 | 17.3 |
| Top ten total | 70.6 | 71.7 | Top ten total | 64.6 | 35.1 |

Source: International Monetary Fund for 2007 data and Angus Maddison, *The World Economy: Volume 1: Millennial Perspective* and *Volume 2: Historical Statistics*, OECD, 2001 and 2003, for 1820 data.

country in terms of both population and GDP. More generally, in the early 1800s there was a positive correlation between the shares of world population and shares of world GDP accounted for by countries. This was mainly due to the agricultural sector being the major contributor to employment and GDP as a result of the still rudimentary state of technological development. The industrial revolution changed things quite dramatically for countries around the world. By 2007, India, the largest democracy in the world, was in twelfth place and China, the largest communist country in the world, was in fourth place. The shake-up in rankings reflected the shift to services and manufacturing from agriculture as the major contributors to growth. This was made possible by advances in engineering and production technology and improved human capital that created a change in the composition of GDP for many countries and thereby made population per se less crucial in determining the size of a country's GDP. These developments have enabled countries with relatively small populations to achieve high levels of GDP per capita. Indeed, both China's and India's GDP per capita are far less than those of the other top ten leading economies listed in Table 1 even though the two Asian Giants account for about 40% of the world's population.

Nevertheless, as Chart 1 shows, the recent rapid growth rates in China and India have enabled them to double their GDP per capita in fewer years than it took both the United Kingdom and the United State to do so.³ If the rapid growth continues in these countries, their GDPs will exceed today's rich countries in the not-too-distant future.⁴ A projection by Goldman Sachs as to exactly when this will happen is provided in Table 2, with projections included

³ China adopted a one-child policy in 1979, which has contributed to the more than eight-fold increase in GDP per capita in just less than 30 years.

⁴ GDP doubles every decade at a growth rate of 7%.

Chart 1 Pace of economic growth, number of years to double per capita GDP
Source: Milken Institute.

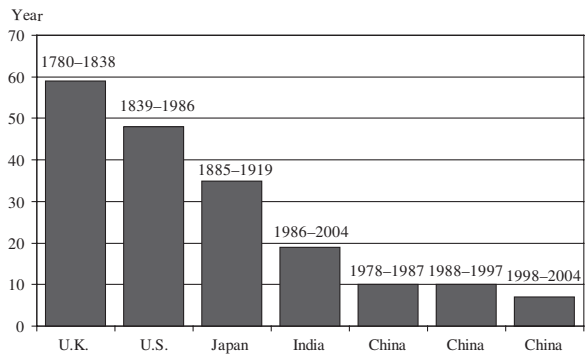


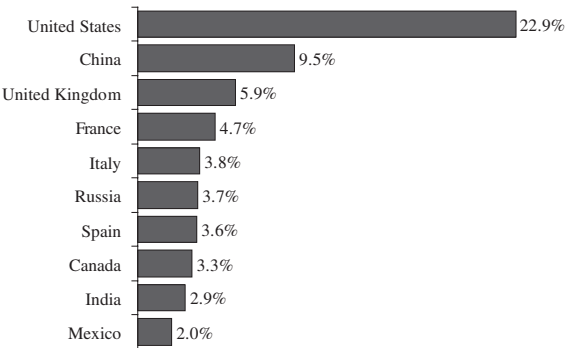
Table 2 When will the BRICs grow larger than large developed countries of the world?

| | France | Germany | Italy | Japan | UK | US |
|------------|----------------|---------|----------------|-------------|------|-------------|
| Brazil (B) | 2031 | 2036 | 2024 | Beyond 2050 | 2036 | Beyond 2050 |
| China (C) | Passed in 2003 | 2007 | Passed in 2001 | 2016 | 2005 | 2042 |
| India (I) | 2019 | 2023 | 2016 | 2032 | 2022 | Beyond 2050 |
| Russia (R) | 2023 | 2028 | 2018 | Beyond 2050 | 2028 | Beyond 2050 |

Source: Authors’ calculation based on Goldman Sachs projections.

for Brazil and Russia.⁵ As may be seen, China is expected to pass the United States in 2042 and India to pass Japan in 2030. Furthermore, China ranks second and India ranks ninth among the top ten contributors to world GDP growth from 1997 to 2007 (see Chart 2). Remarkably, at the market exchange rate in 2007, China contributed to world GDP growth more than the United States. Of course, starting from a fairly low level of GDP with underutilized or surplus natural and human resources enables a country to grow much faster

Chart 2 Major contributors to world GDP growth 1997–2007
Source: International Monetary Fund.



⁵ Dekle and Vandenbroucke (2006) project GDP growth at about 5.8% a year between now and 2040.

than advanced countries. This is not to belittle each of these country's recent accomplishments, however, given the lack of similar growth in many other countries with low levels of GDP and less than fully utilized resources.

Table 3 provides a broader perspective of China by comparing it to select countries in terms of shares of world population, GDP, and total financial assets (including bank assets, bonds outstanding, and stock market capitalization). It is clear that the world's income and financial assets are not distributed among these countries based on their shares of the world's population. Indeed, China accounts for 20.4% of the world's population but only 5.5% of the world's GDP and 3.8% of the world's financial assets. India is in an even worse comparative position, accounting for 17.3% of the world's population but less than 2% of the world's GDP and less than 1% of the world's financial assets. In sharp contrast, the United States accounts for less than 5% of the world's population but nearly 30% of the world's GDP and the world's financial assets. It is also clear from the figures that in the case of Japan, the European Union's (EU) 27 member countries,⁶ and the United States that each country's share of total financial assets is slightly more than its share of world GDP. In the case of China and India, however, their financial asset shares are only two-thirds and one-half of their GDP shares. This reflects the fact that both countries still have relatively underdeveloped financial systems. Furthermore, in China bank assets are twice as large as equities and bonds, whereas in the advanced countries the situation is the reverse. India simply has an underdeveloped banking sector which produces a financial system composition that more closely approximates that of the advanced countries.

Table 3 Distribution of world's population, GDP and financial assets

| | | Percent accounted for by | | | | |
|------------------------|------------------|--------------------------|-------|------|-------|------|
| | | China | India | US | Japan | EU27 |
| 2006 | | | | | | |
| GDP | \$48 trillion | 5.5 | 1.8 | 27.5 | 9.1 | 30.1 |
| Population | 6.4 billion | 20.4 | 17.3 | 4.6 | 2.0 | 7.6 |
| Bank assets | \$87.2 trillion | 5.1 | 0.7 | 15.9 | 11.8 | 51.1 |
| Equity market | \$53.4 trillion | 4.5 | 1.5 | 36.3 | 8.8 | 24.0 |
| Bond market | \$68.1 trillion | 1.7 | 0.5 | 39.2 | 12.8 | 34.6 |
| Total financial assets | \$208.8 trillion | 3.8 | 0.8 | 28.7 | 11.4 | 38.8 |

Source: International Monetary Fund, World Federation of Exchanges, Standard and Poor's, and Bank for International Settlements.

The relative size and composition of financial systems is important because the overwhelming evidence to date indicates that more developed and balanced financial systems promote economic growth and development.⁷ Both China and India have ample room to expand the size of their financial systems,

⁶ This excludes Romania and Bulgaria which became member countries in early 2007, which enlarged the EU to 27 members.

⁷ See Levine (1997, 2005).

including the banking sector and the capital markets, to facilitate continued economic growth and development.⁸ The development of a broader and more diversified financial system, however, should be accompanied by reforms to ensure that savings are allocated to investment projects on the basis of risk and return considerations rather than political connections or cronyism.

3 Contributors to China's Economic Growth

China achieved a remarkable growth rate of 11.5% in 2007. This marked the fifth consecutive year of double digit growth and was the fastest pace of expansion in 13 years despite government efforts to slow somewhat its rapidly growing economy. Table 4 compares the basic contributors to the economic growth of China and India in 2006.⁹ There are several comments about the information in this table. First, China's growth is imbalanced in the sense that it depends heavily on investment and exports and much less than one might expect on consumption. As may be seen, the situation is nearly reversed in the case of India, with consumption being the major contributor to growth. Corresponding to the low consumption rate is a high saving rate in China. Both households and businesses have high saving rates, at 20 and 23%, respectively.¹⁰ This means that China is

Table 4 Contributors to China's and India's recent real GDP growth, 2006

| In percent | Shares of real GDP 2006 | | Component contribution to 2006 real GDP growth | |
|---------------------|-------------------------|-------|--|-------|
| | China | India | China | India |
| Consumption | 36 | 58 | 3.7 | 3.9 |
| Government spending | 14 | 12 | -1.4 | 1.1 |
| Investment | 43 | 33 | 5.7 | 4.5 |
| Exports | 37 | 24 | 8.7 | 4.8 |
| Imports | -30 | -27 | -5.6 | -5.0 |
| GDP | 100 | 100 | | |
| GDP growth | | | 11.1 | 9.3 |

Note: Real GDP and its components are estimated based on nominal figures deflated by price indices in the case of China because it does not publish real expenditure-side GDP.

Source: International Monetary Fund and Milken Institute estimates.

⁸ See Appendix 1 for a comparison of China's and India's financial systems to several other countries'.

⁹ As of this writing, China's GDP components in 2007 still have not been released. The issue of reliability of China's national account data is an ongoing concern. In December 2005, China substantially revised its historical GDP data upward, showing that real growth in 2004 was 10.1% instead of 9.5%. The 2004 nominal GDP was revised upward by 2.3 trillion yuan to 15.99 trillion yuan, an increase of 16.8%.

¹⁰ Many attribute the high household saving rate to the lack of adequate health and pension plans. According to *China Money* (November 7–13, 2005), only 15% of the population is covered by the country's pension system. More generally, see Kuijs (2005) for more detailed information on investment and saving in China.

able to finance its investment with internally generated funds, rather than being a net borrower from abroad, which is the more typical case for a developing country. At the same time, as will be discussed more fully below, most household saving flows into the banks, given the underdeveloped capital markets and the relatively strict capital controls that limit the amount of funds that may flow abroad. The savings or retained earnings of firms also tend to stay mainly within the country and to be used to fund further expansion. The saving rate of the state-owned enterprises (SOEs) in particular is quite high because they are not required to pay dividends to their capital owners, namely, the government.

Second, investment is clearly the main driver in China's rapid economic growth. It is funded mainly with the retained earnings of firms and loans from banks, with the issuance of stock and bonds playing a relatively minor role, though one that has become more important recently for a growing number of firms. Accounting for a 43% share of real GDP in 2006 and still seemingly growing fairly rapidly, there are concerns that investment has led to excess capacity in some sectors of the economy. Indeed, China's Prime Minister Wen recently stated:

...Beijing is increasingly concerned about the quality of growth. He admitted that it had failed to adequately control investment in fixed assets such as factories and machinery. Overinvestment is among the biggest threats to the economy, as it leads to production gluts and can wipe out corporate profits, causing bankruptcies and a jump in bad loans. 'The problem of excess production is getting worse, corporate profits are down and losses are increasing, causing greater potential financial risks' (*Wall Street Journal*, March 6, 2006).

Underscoring the concern about overinvestment, Chart 3 shows the relationship between the ratio of investment to GDP and real GDP growth in China over the period 1980–2006. As may be seen, whenever the investment-to-GDP ratio reached a peak and then fell, real GDP growth subsequently declined. The chart also shows that in 2005, the ratio was at the highest level in 25 years and only reduced slightly in the following year, which reinforces concerns about an investment boom and then a bust, with adverse consequences for economic growth, employment, and banks (i.e., NPLs).¹¹

Third, the export sector has also been an important contributor to China's growth. Indeed, as Table 3 shows, exports are second only to investment in terms of the contribution made to real GDP growth in 2006. Moreover, exports have exceeded imports every year over the past decade, which only serves to underscore the important role exports have played in China's growth story. Indeed, this fact leads some to refer to China as "Wal-Mart with an army." The contribution of exports to growth and employment has led to tremendous development and urbanization in the eastern coastal areas of China. This situation has created a widening income gap between those working in these

¹¹ Liang (2006, p. 22), however, considers investment spending to be overstated and consumption understated. He therefore considers "China's investment cycle [to be] ... profitable and sustainable."

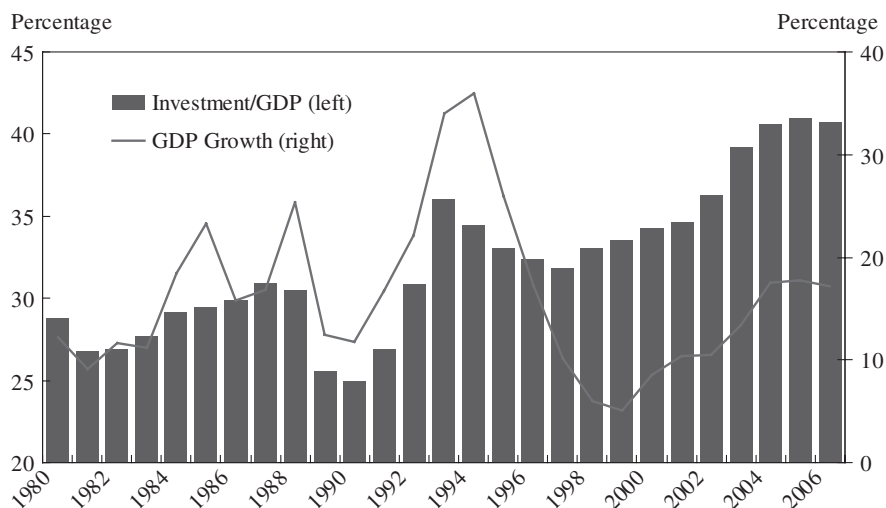


Chart 3 Investment's contribution to China's GDP growth, 1980–2006

Source: International Monetary Fund.

areas and those located in the interior.¹² While the government tries to improve economic conditions in the inland regions of the country, it is also careful to avoid taking any precipitous actions that would adversely affect growth and employment in the export sector, including allowing too much flexibility in its exchange rate too quickly, as will be discussed in the next section.

4 China's Integration into the World Economy

China made a major decision to begin the process of opening its economy to the world in the late 1970s. Chart 4 shows the tremendous strides it has made since then. Indeed, both China's exports and imports exploded over the past 27 years, increasing more than 5,000 and 3,500%, respectively. This is in sharp contrast to the progress that India has made on this score, as the chart shows. The growth, moreover, has far surpassed the growth in world exports and imports over this same period. As a result of this growth, China is now the third largest trading nation in the world when measured by the sum of exports and imports, behind only the Euro area and the United States (see Table 5).¹³ China, moreover, is far more "open" than the United States when openness is measured by the ratio of exports plus imports to GDP. Furthermore, Chart 5 shows that

¹² The eastern coastal areas account for about two-thirds of GDP and have a GDP per capita that is about twice the national average, according to the China Statistical Yearbook. For more information on these disparities, see Catin et al. (2005).

¹³ For purposes of comparison, India ranks 18.

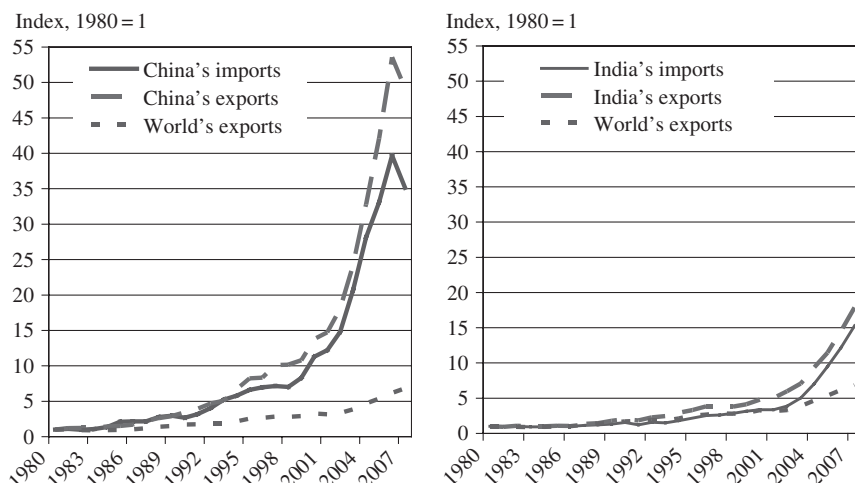


Chart 4 Growth in trade: China vs. India

Source: International Monetary Fund.

Table 5 Top global trading nations, 2007

| | | Trade (US\$ billions) | GDP (US\$ billions) | Trade/GDP (%) |
|----|----------------|-----------------------|---------------------|---------------|
| 1 | Euro area | 5,334 | 12,158 | 44 |
| 2 | United States | 1,535 | 13,844 | 11 |
| 3 | China | 1,180 | 3,251 | 36 |
| 4 | Germany | 1,170 | 3,322 | 35 |
| 5 | Japan | 666 | 4,384 | 15 |
| 6 | France | 601 | 2,560 | 23 |
| 7 | United Kingdom | 534 | 2,773 | 19 |
| 8 | Netherlands | 501 | 769 | 65 |
| 9 | Italy | 494 | 2,105 | 23 |
| 10 | Canada | 399 | 1,432 | 28 |
| 21 | India | 164 | 1,099 | 15 |

Source: International Monetary Fund.

there is a fairly close and positive relationship between the growth in China's share of world trade and the growth in its share of world GDP. Once again, in sharp contrast, India's share of world trade has remained relative flat over the past 27 years and so too has its share of world GDP until the last 3 years.

At the same time that China had been rapidly integrating into the world economy through trade, it had been running a trade surplus for every year since 1990, except for 1993. The surpluses, moreover, have been increasing over time, reaching a record \$270 billion in 2007. This, of course, means that some other countries have been running trade deficits with China. The US official figure for

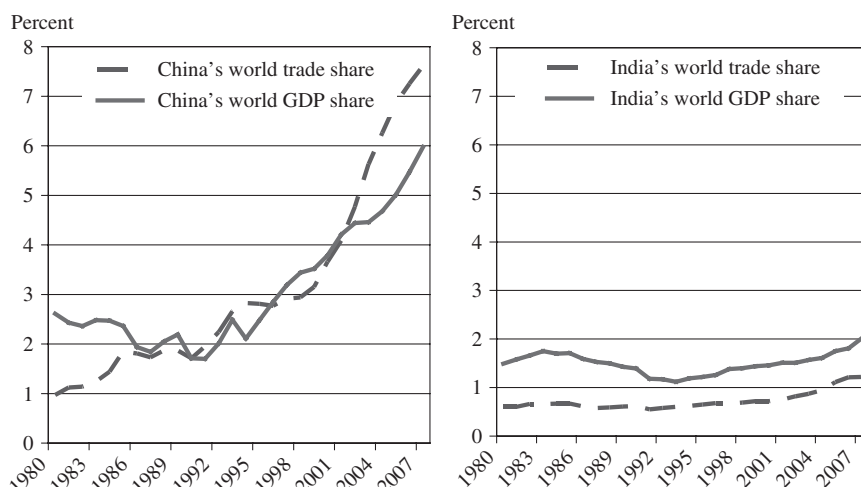


Chart 5 World trade and GDP shares: China vs. India

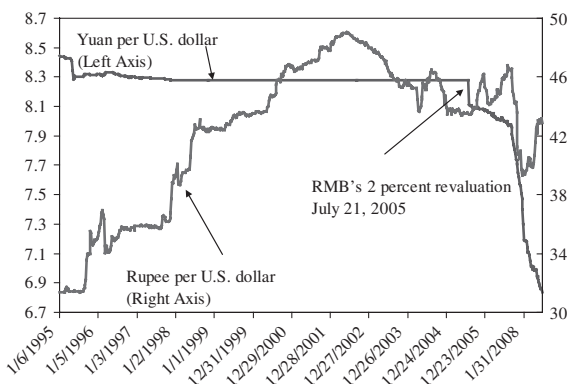
Source: International Monetary Fund.

the US trade deficit reached a record \$274 billion in 2007.¹⁴ To reduce this deficit, the United States has been pressuring China to allow its currency, the yuan or renminbi (RMB), to fluctuate to a far greater degree than China has so far allowed.¹⁵ The pressure being applied is based on the reasonable assumption that market forces would cause a significant appreciation of the RMB against the US dollar and thereby help reduce the US trade deficit. Chart 6 shows that China had pegged the RMB to the US dollar from 1995 until July 21, 2005, when it revalued its currency against the US dollar by 2.1%. (For purposes of comparison, Chart 6 also shows that India has not pegged its currency to the US dollar.) China also put in place a band within which it would allow the RMB to fluctuate on a daily basis with respect to the US dollar and a slightly wider band within which its currency could fluctuate against a basket of currencies. From July 20, 2005, to June 20, 2008, the RMB had appreciated with respect to the US dollar by about 15.2%. Even with this rate of RMB appreciation, foreign exchange reserves have still accumulated at a very fast pace, growing 30 and 46% in 2006 and 2007, respectively (Chart 7). In the first half of 2008, reserves grew more than 18%. With this growth pace, by the end of 2008, China's foreign exchange reserves will exceed US\$2 trillion.

¹⁴ The total US trade deficit, however, was \$854 billion. The Chinese government reported that trade surpluses with the US and the world are \$167 billion and \$270 billion in 2007, respectively.

¹⁵ In addition, the United States filed a complaint with the WTO in early February 2007 charging China with unfairly subsidizing exports by Chinese companies.

Chart 6 Exchange rates:
China vs. India
Source: International Monetary Fund.



US\$ trillions

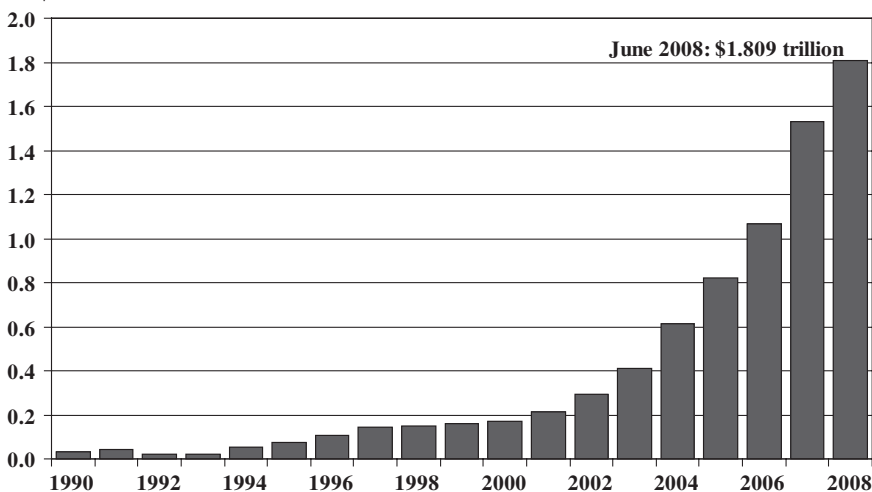


Chart 7 China's rapidly growing foreign exchange reserves
Source: International Monetary Fund and State Administration of Foreign Exchange.

In addition to the current account surpluses, China has been running surpluses on its capital account. As Chart 8 shows, the most important and stable source of private net capital flows to China from 1982 to 2006 has been foreign direct investment (FDI). Its share of world foreign direct investment inflows increased to 5.3% in 2006 from only 0.1% in 1980. In 2006, about 20% of all FDI inflows into developing countries went to China.¹⁶ In 2007, China received FDI inflows of \$82.6 billion and accumulatively the total reached \$742 billion at year-end 2007. During the first half of 2008, China had already received \$52.4

¹⁶ *World Investment Report 2007*, UNCTAD.

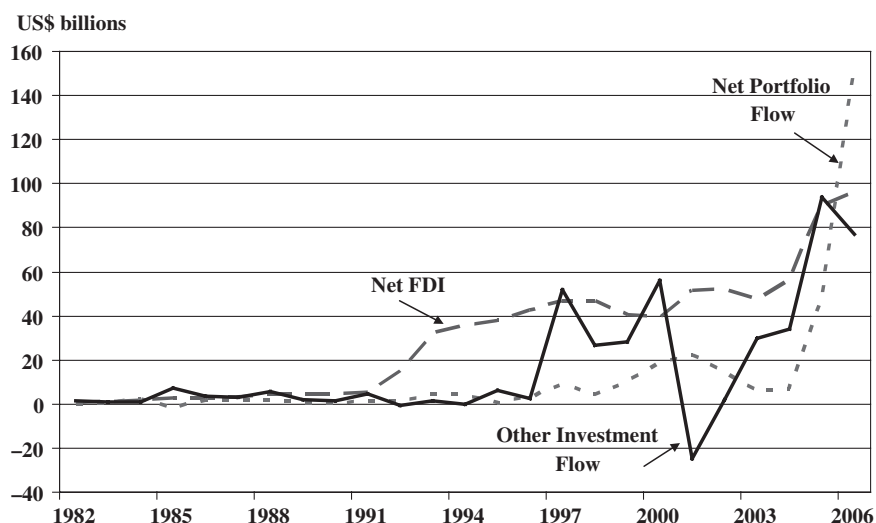


Chart 8 Net private capital flows to China
Source: International Monetary Fund.

billion in FDI.¹⁷ In this regard, Whalley and Xin (2006) point out that foreign companies supplying foreign direct investment often form joint ventures with Chinese enterprises supplying land and labor; see Table 6. This is important because they indicate that these Foreign Invested Enterprises (FIEs) account for over 50% of exports and 60% of imports. Furthermore, Walley and Xin estimate that China's FIEs contributed over 40% of China's economic growth in 2003 and 2004, and that without this inward FDI, China's overall GDP growth rate would have been 3.4 percentage points lower.

Table 6 Foreign direct investment by type of enterprise

| | FDI | Joint ventures and | Foreign enterprises and | |
|------|---------------|----------------------|--------------------------|--------|
| | US\$ billions | cooperative ventures | foreign invested | Others |
| | | Share of total FDI | shareholding enterprises | |
| 2000 | 40.7 | 51.4 | 47.6 | 0.9 |
| 2001 | 46.9 | 46.8 | 52.1 | 1.1 |
| 2002 | 52.7 | 38.0 | 61.5 | 0.5 |
| 2003 | 53.5 | 35.9 | 63.0 | 1.1 |
| 2004 | 60.6 | 32.2 | 67.6 | 0.2 |
| 2005 | 72.4 | 22.7 | 60.6 | 16.7 |
| 2006 | 72.6 | 23.2 | 67.5 | 8.9 |
| 2007 | 82.7 | 20.6 | 69.9 | 9.5 |

Source: CEIC Database.

¹⁷ China's Ministry of Commerce.

In the past several years, outward direct investment from China has become increasingly important as a tool for reducing appreciation pressure on the RMB as well as increasing the supply of natural resources, both of which are necessary for manufacturing export-driven growth. According to the “10th Five-Year Plan for National Economic and Social Development,” China will “proactively make use of overseas natural resources, establish overseas supply bases for both oil and gas, diversify oil imports, build up a strategic petroleum reserve and maintain national energy security” (Pamlin and Long, 2007). Chart 9 shows the number and deal value of Chinese companies that are expanding abroad. Both the value and number of deals have increased sharply since 2005.

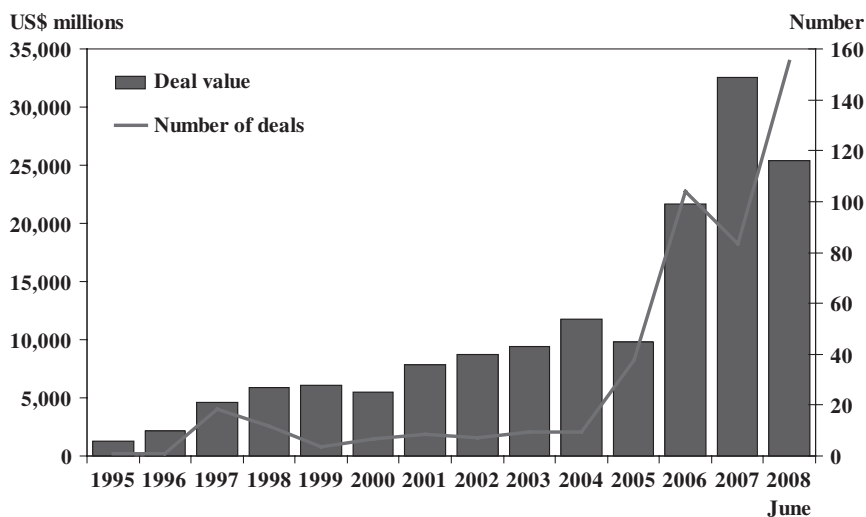


Chart 9 Completed M&As abroad by Chinese companies
Source: Dealogic.

Comparing outward direct investment of China with those of other countries (Chart 10) shows that not only is China a relatively new player in the outward direct investment market, but it is still a relatively small player compared to developed countries, like the Netherlands, France, and the United Kingdom, all of which had more than \$100 billion in outward investment in 2006. Given China’s need to support its manufacturing and export sectors, it is not surprising that most of the outward direct investment recently has involved energy and other natural resources (see Chart 11).

Although China has more recently relaxed direct investment inflow and outflow restrictions, other types of capital inflows have been more strictly limited and outflows of capital have also been even more restricted.¹⁸ China

¹⁸ The QFIIs are allowed to invest in A shares (shares denominated in renminbi). There are also B shares (shares denominated in US or HK dollars) that are available to domestic (since

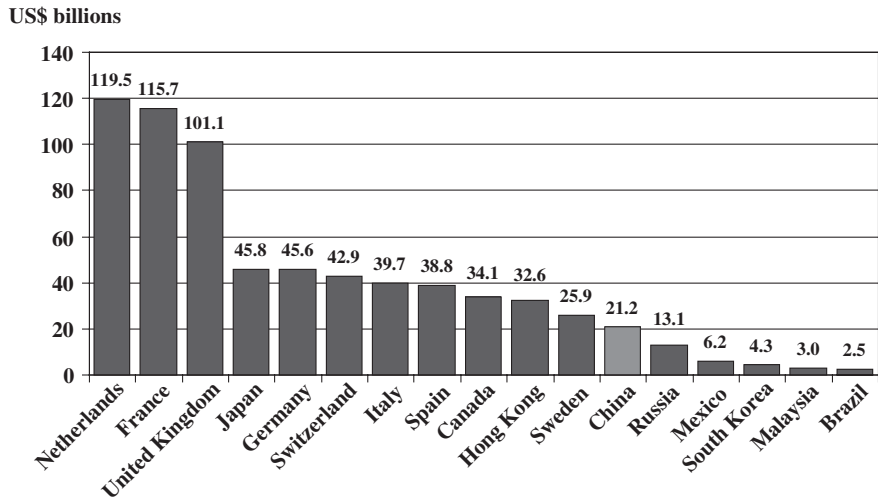


Chart 10 Ranking countries’ outward direct investment by amount, 2006
Source: UNCTAD.

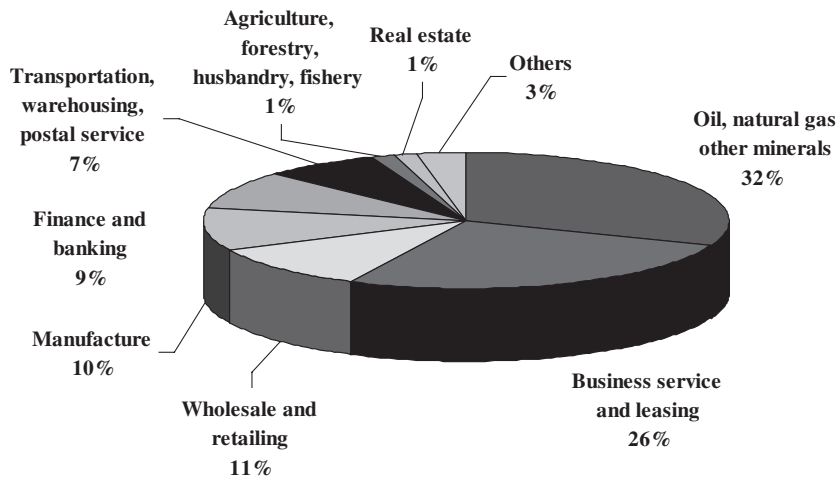


Chart 11 China’s outward direct investment by industry: Cumulative flows, 2004–2006
Source: Dealogic.

did, however, establish a qualified foreign institutional investor (QFII) program in December 2002 and a qualified domestic institutional investor (QDII) program in April 2006, which allow portfolio inflow and outflow investments, respectively, through licensed banks, insurance companies, and fund managers

2002) and foreign (since 1992) investors in China’s two stock exchanges. H shares, N shares, and S shares are shares of Chinese companies listed in Hong Kong, New York, or Singapore, respectively.

to the level permitted by quotas. As of May 2008, China Securities Regulatory Commission had approved \$10.3 billion QFII quotas to 54 foreign institutions and \$48.2 billion QDII to 52 domestic institutions.

Along with the QDII program, China also employs other administrative measures to ease capital outflow restrictions. In April 2006, Chinese firms and residents were allowed to buy only fixed-income foreign assets. A year later, China allowed outward investment in equities. Furthermore, in 2006 China allowed individuals to convert RMB to dollar up to \$20,000 per year to take out of China.¹⁹ The amount has been expanded to \$50,000 in 2007. China has initially chosen to liberalize primarily its capital controls with respect to foreign direct investment inflows, which not only provide funds for investment projects but also much needed technology and managerial skills that can spread to domestic firms throughout the country.²⁰

The reason China has retained fairly rigid capital controls with a pegged exchange rate regime is attributable to the events that occurred in East Asia in the summer of 1997. The collapse of the Thai baht in July was followed by a financial crisis in the region. Countries with weak financial systems tried to defend the currency pegs that existed at the time through contractionary measures rather than abandoning them, even when the pegs became unsustainable and foreign currency reserves were being depleted. As Chart 12 shows, several countries in East Asia suffered severe recessions due to the crisis, but China did not. A difference is that these other countries had not only adopted pegged exchange rate regimes but also had liberalized their capital controls. Although this allowed a surge in capital inflows to finance investment, it made the countries vulnerable to sudden and large financial outflows when investors decided that their financial systems were weak and the currency pegs were not sustainable. In view of what happened, China has proceeded quite cautiously with respect to removing the controls it has placed on the flow of capital funds into and out of the country while it still retains a fairly tightly pegged exchange rate regime.

As result of its exchange rate policy and capital controls, unlike other countries at the same stage of economic development, China has been running surpluses on both its current and capital accounts.²¹ This has enabled China to accumulate an enormous amount of foreign exchange reserves, about \$1.8 trillion in June 2008, replacing Japan as the world's top holder of such reserves.²² Once China allows the RMB to be fully convertible on the capital account, its large reserve holdings

¹⁹ See US Treasury Department (2006).

²⁰ World Investment Report, 2007, shows that China ranks 58th out of 141 countries in terms of outward FDI over 2004–2006. This situation may change if China redeploys its huge foreign exchange reserves away from its substantial holdings of US securities.

²¹ China allowed fully convertibility on the current account in 1996.

²² This is more than ten times the amount in 2000, which was \$168 billion. Interestingly, Frankel (2006, p. 658), in a comment on a paper by Dooley et al. (2003), points out that in their view: "China is piling up dollars. . . as part of an export-led development strategy that is rational given China's need to import workable systems of finance and corporate governance."

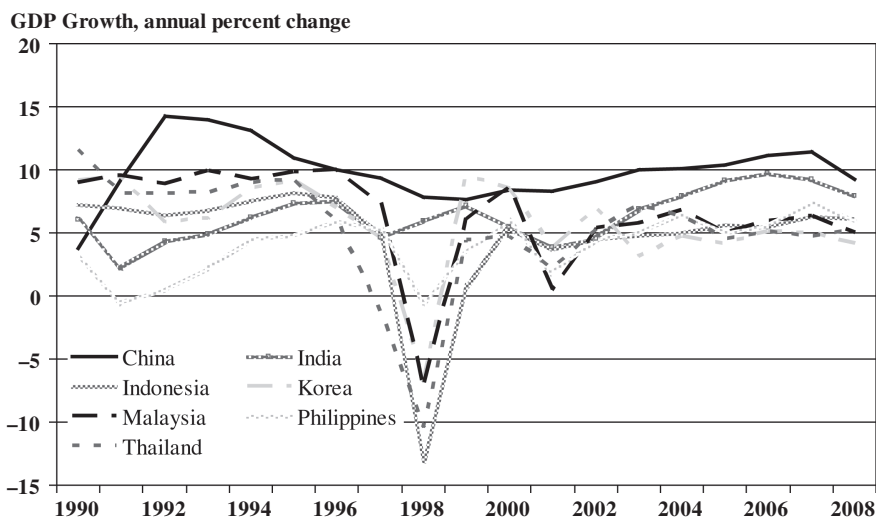


Chart 12 China and India avoid Asian financial crisis

Sources: World Economic Outlook and International Financial Statistics, the International Monetary Fund.

can help assure foreign investors that the country can withstand an attack on its currency, thereby preventing what happened in East Asia in 1997–1998.²³

China is now the largest exporter of capital in the world, while the United States is the largest importer of capital.²⁴ A large portion of China's foreign exchange reserves are invested in US bonds, which has helped keep US interest rates lower than otherwise. To the extent that shifts in the composition of its portfolio are away from bonds to equities, and away from U.S. securities to EU securities, prices in world securities markets may undergo significant changes. At the moment, the securities that China has been accumulating with its growing stock of foreign exchange reserves are assets on the balance sheet of the PBOC. By shifting the composition of the portfolio to higher yielding investments, the PBOC could increase the earnings on its assets. The risk of such a newly rebalanced portfolio, however, would also increase. To the extent that another institution is used to invest a portion of the foreign exchange reserves in higher yielding assets, the risk of sizable capital losses on the balance sheet of the PBOC is correspondingly reduced. In this regard, in September 2007, the China Investment Corporation (CIC) was established as a state-owned investment company with an initial capital of \$200 billion. The CIC invests in domestic financial institutions as well as other projects abroad. The CIC spent about \$67 billion to acquire Central Huijin Investment Company Limited, an investment arm

²³ China's current foreign exchange reserves are 160% of its annual imports in 2007.

²⁴ See Dollar and Kraay (2005) for an analysis of this issue with respect to China. Also, see Appendix 2 for a comparison China and India's international investment positions.

of the PBOC that holds shares of the Big Four. The CIC also has acquired ownership stakes in three large international finance companies: \$2 billion in Blackstone Group, \$5 billion in Morgan Stanley, and \$100 million in VISA.

The buildup in foreign exchange reserves at the PBOC has resulted from sterilization actions taken by the government. To prevent excessive growth in the money supply that would worsen inflation and bank credit that would contribute to overinvestment as foreign currency is exchanged for RMB, the PBOC has been selling bonds paying relatively low interest rates to banks, rates lower than those charged on loans made by banks. This type of operation enables the PBOC to earn profits insofar as the interest earnings on its assets exceeds the interest paid on its liabilities, including the bonds it issues to sterilize foreign currency inflows and the reserves it requires banks to deposit with it.²⁵ Indeed, it is reported that the PBOC had gross earnings of \$44 billion in interest payments in 2006 on its foreign exchange investments, while it had expenses of \$11.5 billion in interest payments on its debt and on interest for the reserves of commercial banks it holds.²⁶

The problem that arises in this situation is that the PBOC is increasing its profits at the expense of the banks; truly commercial banks would not endure this arrangement for long.²⁷ The central bank is in essence serving as a financial intermediary insofar as it is channeling a large portion of the savings of the public through the banks into investment, but foreign investment is largely not available to the banks or the public due to capital controls. Table 7 provides an example of the effect of this situation by examining the financial statements reported by China Construction Bank as of December 2007. As may be seen, deposits fund 81% of total assets and depositors are paid an average rate of 1.57%. Yet, loans and advances account for only 48% of total assets, while investments in debt securities account for 33%, which includes the PBOC

Table 7 China Construction Bank, December 2007

| | | | |
|---|--------|--|--------|
| Average annualized cost of deposits from customers | 1.57% | Deposits from customers/total assets | 80.94% |
| Average annualized yield on loans and advances from customers | 6.31% | Loans and advances/total assets | 48.24% |
| Average yield on Investment in debt securities | 3.29% | Investment in debt securities/total assets | 32.92% |
| Net interest margin | 3.18% | | |
| Non-interest income/total income | 12.66% | | |

Source: China Construction Bank.

²⁵ The PBOC also increased reserve requirements for banks several times in recent years to help curtail growth in money and credit. In the mid-2008, the reserve requirement was 17.5%.

²⁶ Ye Xie, "Chinese central bank seen making a profit," *International Herald Tribune*, January 7, 2007.

²⁷ For example, it was the rebellion by Japanese banks against the practice of forcing them to take up government debt with below-market interest rates that helped set off the deregulation of the Japanese banking system in the early 1980s.

securities issued for sterilization purposes. The average yield on loans is 6.31%, whereas the average yield on investments is a much lower 3.29%. The result is a net interest margin of 3.18%. This situation means that Chinese banks are vulnerable to any slowing in loan growth because they derive most of their income from the net interest margin.²⁸

The huge amount of foreign exchange reserves that are denominated in US dollars poses a problem for China. Assume for purposes of illustration that 70% of the \$1.8 trillion in reserves are denominated in US dollars. This means that there is a 15.3% appreciation of the RMB against the US dollar since the initial revaluation results in an unrealized capital loss of \$191 billion. Of course, total reserves were not this high since China allowed its currency to appreciate against the US dollar in July 2005. Also, the remaining 30% of the reserves are denominated in other foreign currencies against which the RMB may have depreciated. Nevertheless, depending on the degree to which the reserves are hedged, the fact that the RMB is most tightly pegged to the US dollar means that any appreciation creates unrealized capital losses for the PBOC. It also creates potential problems for exporting firms that receive revenue in US dollars and that have outstanding bank loans in RMB, unless such exchange rate risk has been properly hedged. The banking sector, however, is less exposed to this exchange rate risk because it has less than 5% of its assets, and about the same percentage of its liabilities, denominated in foreign currencies. Furthermore, the expectation of further appreciation has contributed to “hot money” flows into China, particularly into the real estate sector with a view toward selling the real estate and reaping both capital gains and exchange rate gains after a significant degree of appreciation occurs.

Chinese officials are well aware of the problems resulting from current and capital account surpluses with its currency pegged within a trading range. But they are also acutely aware of the risk of any major changes in relaxing capital controls and further widening the trading band for the RMB and are attempting the difficult task of pursuing sustainable economic growth without the ability to use macro-monetary tools to prevent excessive growth in both money and credit. Instead, China is relying on various micro-monetary tools to prevent serious disruptions to investment and export growth that would worsen unemployment until more balanced growth can occur. Given the crucial role that banks play in this “balancing act,” the next section examines in greater detail their position in the overall financial system and their recent condition and current prospects as drivers of growth.

²⁸ Unlike banks in the United States, Chinese banks earn relatively little of their total income from non-interest revenue. This trend, however, is changing rapidly; in the case of China Construction Bank, the increase was only 14.2% in 2007, from 8.95% in 2006.

5 The Structure, Performance, and Risks of China's Financial System²⁹

China has a bank-centered financial ²⁹system, much more so than either India or the United States, as Chart 13 shows. Indeed, operating in a capital markets-oriented financial system, firms in the United States have a greater opportunity to access external funds by selling stocks and bonds, thereby significantly lessening the need to rely on credit from banks.³⁰ This difference in the development of the financial system is not surprising: arms-length finance, such as corporate debt and equity, requires a much more sophisticated, timely, and reliable information network, compared with bank finance. As a result, these parts of the financial system usually develop later, leaving most developing economies with a heavy bank-based system. Yet a balanced financial system is desirable. Most importantly, when the financial condition of banks deteriorates and loan growth is curtailed, firms are more easily able to obtain alternative funding in a more balanced financial system than the one that currently exists in China. Indeed, in 2006, the China non-financial sector raised about \$500 billion, of which 82% was from bank loans, 5.6% from stocks, 5.7% from corporate bonds, and 6.7% from government bonds.³¹

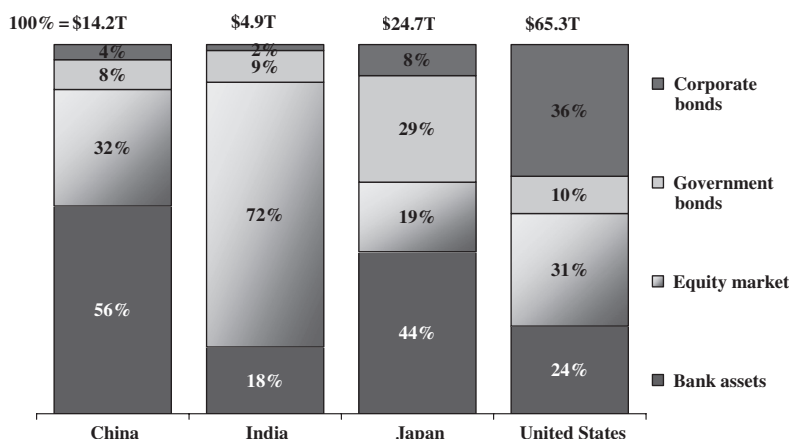


Chart 13 Financial system composition, 2007

Source: International Financial Statistics, International Monetary Fund, Standard and Poor's, Bank for International Settlements, and China Banking Regulatory Commission.

²⁹ For current and detailed information on the laws and regulations pertaining to the financial restructuring and reform that has taken place in China, see Barth et al. (2007).

³⁰ Of course, in most countries, including in the United States, small and medium size enterprises (SMEs) typically encounter problems when trying to obtain external funding. Venture capital funds can provide the same, albeit limited, assistance in this regard.

³¹ *Financial Stability Report 2007*, People's Bank of China.

The Chinese government recognizes this situation and has taken action to facilitate further development of its capital markets. For example, revisions were made to the Company Law and Securities Law, which became effective January 1, 2006, that strengthen minority shareholder rights, and beginning April 2005 all non-tradable shares in SOEs listed on China's two stock exchanges were required to be converted into tradable shares, which will eliminate the problem of the overhang of state-owned shares. The SOEs constitute about 70% of the 1,400 listed companies in China. As of January 2006, the share conversion process had been completed in companies that account for about 50% of the total market capitalization of the domestic stock exchanges. Also, on February 15, 2006, the Ministry of Finance issued new accounting practices that will bring Chinese accounting practices largely in line with International Financial Reporting Standards (IFRS).³² Furthermore, the development of the corporate bond market, as well as banks, will benefit by better protecting the rights of creditors. Specifically, a new Enterprise Bankruptcy Law was approved by the National People's Congress. The importance of the law is as follows:

The law, to take effect June 1, 2006, will replace rules issued in 1986 that applied only to state-owned enterprises. China's bankruptcy rules require insolvent companies to pay off obligations to employees before they address creditors' claims. The new law, which governs state-owned and privately owned companies, requires companies that go bankrupt to pay guarantees to creditors first, with employee salaries and other obligations paid out of what remains, the official Xinhua news agency said. Experts have long complained that China's rules offered scant protection for creditors and give little guidance for dealing with insolvent companies in an increasingly market-driven economy (*Wall Street Journal*, August 28, 2006-A4).

Although banks account for 56% of the total financial assets in China (see Chart 9), the top five SOCBs account for roughly 52% of total bank assets, or just under half of all financial assets. Chart 14 shows the different shares of total assets of all financial institutions in China by type of institution.³³ The five SOCBs clearly dominate in terms of total assets, total loans, and total deposits, at shares of 52, 47, and 56%, respectively. The concentration of financial assets in just five institutions underscores all the attention they receive because in a way they provide a major indicator of the health of the entire financial system and, more broadly, the economy.

Between the formation of the People's Republic of China in 1949 and late 1970, the PBOC functioned as both a central bank and as the primary commercial bank. It engaged in deposit-taking and lending activities in accordance with the central plan of the government. This "monopoly" of the banking sector ended in 1979 when the PBOC gave up part of its commercial operations with the formation of the Agricultural Bank of China (ABC) and the Bank of China (BOC). This was followed by giving up the remainder of its

³² See Institute of International Finance (2006).

³³ In 2007, there were roughly 8,877 financial institutions in China, with about 8,348 being rural credit cooperatives. There were 5 state-owned commercial banks (Big Four), 3 policy-development banks, 12 joint-stock commercial banks, 124 city commercial banks, and 42 urban credit cooperatives, among other financial institutions.

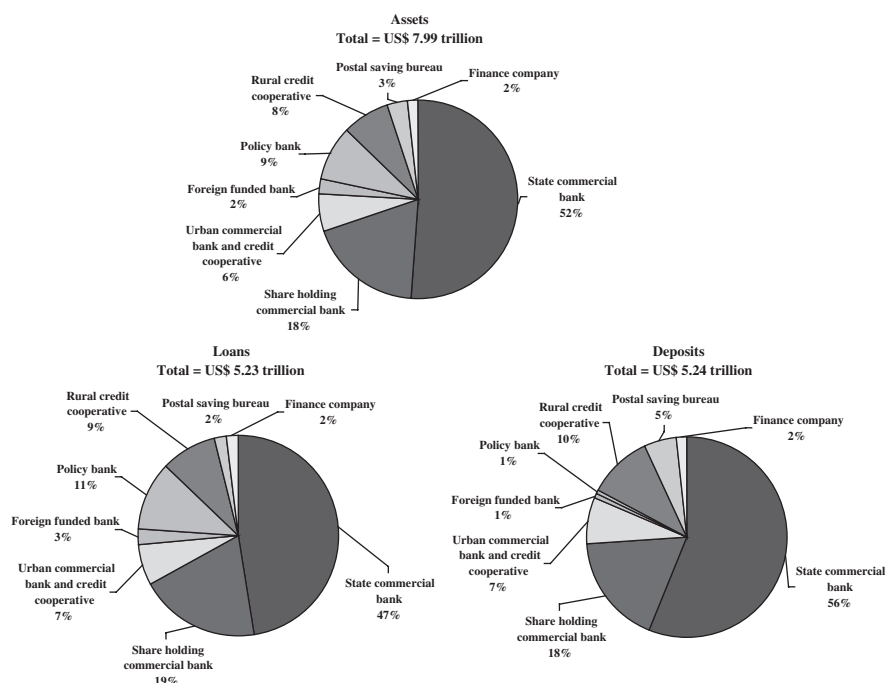


Chart 14 Distribution of assets, deposits and loans by type of Financial Institution in China, March 2008

Note: State-owned commercial banks include Big Four and Bank of Communications.

Source: CEIC.

commercial banking operations with the formation of China Construction Bank (CBC) and the Industrial and Commercial Bank of China (ICBC) in 1983. These four institutions, the Big Four, simply continued providing the commercial banking functions previously provided by the PBOC, with ABC specializing in agricultural financing, BOC specializing in foreign exchange and trade financing, CBC specializing in construction and infrastructure financing, and ICBC specializing in urban commercial financing. The PBOC was designated by the State Council as the nation's central bank and the regulator and supervisor of the banking system.

To improve the commercialization of the banking industry in the 1980s, the Big Four were allowed to expand into new commercial banking businesses beyond those in which they had specialized. New commercial banks and other nonbank financial institutions were established beginning in the late 1980s to develop a more modern financial system. This included joint-stock commercial banks with nationwide banking licenses and urban commercial banks with licenses to engage in commercial banking activities within their designated geographic areas.³⁴ Then,

³⁴ Prior to China becoming a member of the WTO, foreign banks were allowed to set up representative offices in China since 1979, and foreign banks were approved to establish branches

in 1994, three policy development banks, the China Development Bank, the Export-Import Bank of China, and the Agricultural Development Bank of China, were established to take over the policy lending functions of the Big Four.³⁵ In 1995, the National People's Congress passed the Commercial Banking Law, which enabled the Big Four to operate more like genuine commercial banks and segregated the business operations of banks, securities firms, and insurance companies. This separation subsequently led to the establishment of three separate regulatory agencies to oversee each industry. The China Securities Regulatory Commission (CSRS) was established in 1992 initially to oversee the two stock exchanges but also given supervisory responsibility of the securities market in 1998. The China Insurance Regulatory Commission (CIRC) was established in 1998 to oversee the insurance industry. Lastly, the China Banking Regulatory Commission (CBRC) was established in 2003 to oversee the banking industry. These three agencies assumed the majority of the regulatory and supervisory functions of the PBOC over financial institutions.³⁶ Figure 1 shows the regulatory structure of China's financial sector.

If the transition from a centrally planned economy to a socialist market economy was to be successful, the banking sector had to be relived of the burden of holding large amounts of NPLs that had accumulated over the years. The Big Four in particular had historically been collecting deposits and then using them to fund projects as directed by the government. Credit was not allocated on the basis of risk and return considerations, which are crucial in a market-oriented economy to ensure the efficient allocation of credit. To put the Big Four in a position to pay greater attention to risk and return trade-offs required that their balance sheets be strengthened by removing NPLs that represented a legacy of past practices and simultaneously by increasing their capital. Strengthening the financial condition of the Big Four became especially important once China became a member of the World Trade Organization (WTO) on December 11, 2001 and committed to open up its banking sector in phases over a 5-year period that ended on December 11, 2006 (see Table 8).³⁷ By removing bad loans and

in 1981. In December 1996 and August 1998, qualified branches of foreign banks were allowed to offer RMB products. Zhu Xinqing, "Development of China Banking Industry and Restructuring Practices of BOC," PowerPoint presentation, Chicago, IL November 4–5, 2004.

³⁵ Also, beginning in 1994, the government was precluded from borrowing from the PBOC to finance any budget deficits. This helped stimulate growth in the bond market. It is reported, moreover, that China Development Bank is being considered by the government for conversion into a commercial bank. (*XFN News*, January 8, 2007).

³⁶ For detailed information on China's laws and regulations pertaining to the financial sector, see Barth et al. (2007).

³⁷ In November 2006, China said it would fulfill its WTO commitment of giving foreign banks full access to its banking market if they incorporated their China operations locally (*Wall Street Journal*, February 8, 2007, p. C4). This requirement is related to the plan by the Chinese government to introduce a system of deposit insurance insofar as deposits in branches outside a bank's home country can be uninsured, which is the case for branches of a US bank located outside the country.

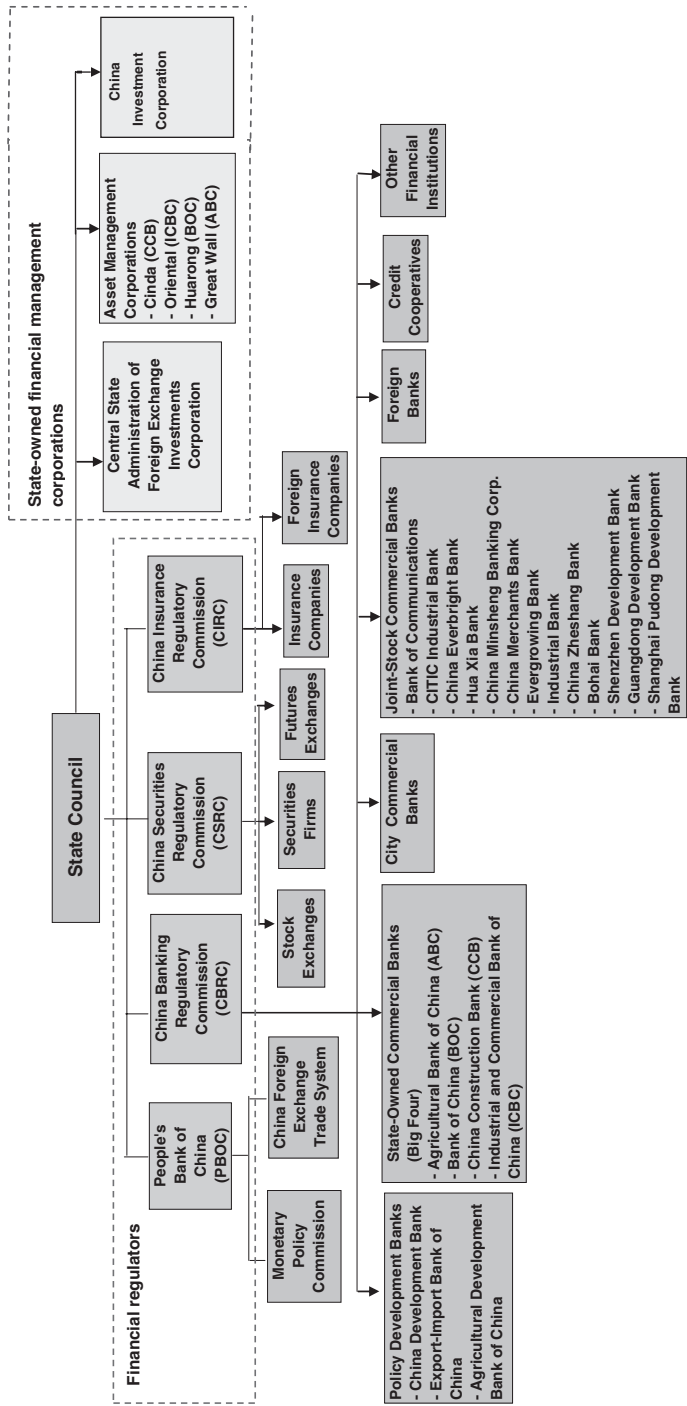


Fig. 1 The financial regulatory structure in China

Table 8 China's WTO commitments: Banking

| Time | Form of establishment | Regions | Clients |
|-----------------|---|---|---|
| Entry | Subsidiary or branches subject to certain (prudential) requirements | No restrictions for foreign currency business RMB business: Shanghai, Shenzhen, Tianjin, Dalian | Foreign currency business: All types of clients |
| By 11 Dec. 2002 | | RMB business: Guangzhou, Zhuhai, Qingdao, Nanjing, Wuhan | |
| By 11 Dec. 2003 | | RMB business: Jinan, Fuzhou, Chengdu, Chongqing | RMB business: only to Chinese enterprises |
| By 11 Dec. 2004 | | RMB business: Kunming, Beijing, Xiamen | |
| By 11 Dec. 2005 | | RMB business: shantou, Ningbo, Xi'an | |
| By 11 Dec. 2006 | | RMB business: no geographic restrictions | RMB business: to all Chinese clients |

increasing capital, the goal of the government has been to enable the Big Four to become internationally competitive banks.

To assist in addressing the loan problems of the Big Four, four asset management companies (AMCs)—Cinda, Oriental, Great Wall, and Huarong—were established in 1999, one initially designated for each of the four state-owned banks. At that time \$169 billion NPLs were transferred from the Big Four to the AMCs in exchange for 10-year bonds with an annual interest rate of 2.25%.³⁸ Overall, \$200 billion in NPLs was transferred to the AMCs or sold to other entities from 1999 to 2006. In addition, \$80 billion in capital was injected into the Big Four from 1998 to 2006, with \$45 billion to BOC and CCB in 2005 and \$15 billion to ICBC in 2005.³⁹ As a result of these efforts, the NPL ratios (i.e., non-performing loans to total loans) of each of the Big Four declined sharply from 2002 to 2007, as may be seen in Table 9.⁴⁰ However, it is obvious

³⁸ The AMCs had a mandate when established to clean up all the NPLs they acquired within 10 years (i.e., 2008). The NPLs transferred in 1999 were made prior to 1996, and classified under the four-tier category system as being overdue for more than one year.

³⁹ Foreign firms have also injected capital into Chinese banks through the acquisition of ownership shares, although the total foreign ownership in a bank is limited to less than 20% for a single investor and to less than 25% for all foreign investors.

⁴⁰ In January 2002, a new five-category loan classification system was introduced. Under this system, commercial banks are required to classify their loans into the following 5 categories: "pass," "special mentioned," "sub-standard," "doubtful," and "loss." A loan is classified as a "non-performing loan" if it is classified as "sub-standard," "doubtful," or "loss." Also, a new provisioning

Table 9 Non-performing loans to total loans of the Big Four

| Percentages, end of year | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|------|------|------|------|------|------|
| Agricultural Bank of China | 36.7 | 30.7 | 26.8 | 26.3 | 23.7 | 23.5 |
| Industrial and Commercial Bank of China | 25.5 | 21.3 | 19.1 | 4.7 | 3.8 | 2.7 |
| Bank of China | 22.4 | 15.9 | 5.1 | 4.6 | 4.0 | 3.1 |
| China Construction Bank | 15.4 | 9.1 | 3.7 | 3.8 | 3.4 | 2.6 |
| Aggregate of the Big Four | 23.1 | 17.8 | 15.6 | 10.5 | 9.1 | 8.9 |

Source: People's Bank of China and China Banking Regulatory Commission.

that while three of the banks have seen their ratios fall to around 3% in 2007, the fourth, ABC, still has a high ratio of 24%.

Table 10 shows the NPLs transferred to the AMCs as well as how much has been disposed of and what value has been received in exchange. As of December 2005, the AMCs had resolved \$104 billion of \$156 billion of NPLs acquired, generating \$22 billion in cash proceeds. To the extent that the AMCs are unable to make good on the bonds they have given the Big Four in exchange for the NPLs, the government will have to assume this obligation to prevent the banks from absorbing any losses. Still, there is the significant risk that even banks whose balance sheets have been cleaned of substantial amounts of NPLs will continue to get into difficulty if excessive credit is extended and on inappropriate terms. More generally, the NPL situation, at least in publicly available figures, for the entire banking sector in China for March 2008 is shown in Table 11. While the Big Four account for 87% of all the NPLs in the banking sector, the other domestic banks clearly have had their own loan problems.

Table 10 NPLs disposed of by asset management corporations, March 2006

| | Accumulated NPLs disposed of 1999 to March 2006 (US billions) | NPLs disposed of/total NPLs (%) | Cash and non-cash received/ NPLs disposed of (%) | Cash recovered/ accumulated NPLs disposed of (%) |
|------------------|---|---------------------------------|--|--|
| Huarong (BOC) | 30.80 | 70.11 | 26.50 | 22.15 |
| Great Wall (ABC) | 33.80 | 80.11 | 12.70 | 10.28 |
| Oriental (ICBC) | 17.70 | 56.13 | 27.16 | 23.11 |
| Cinda (CCB) | 25.80 | 64.69 | 34.46 | 31.56 |
| Total | 108.10 | 68.61 | 24.20 | 20.84 |

Source: China Banking Regulatory Commission.

To put the NPL situation in somewhat broader perspective, Table 12 shows the equity-to-asset ratios for each of the Big Four. Comparing these ratios to the corresponding NPL ratios in Table 9 one sees the still precarious condition

system was introduced, requiring general provisions of 1% of total loans classified as pass to cover potential losses, and specific provisions of 2, 25, 50, and 100% of the amount of loans classified as "special mentioned," sub-standard, doubtful, and loss, respectively. CBRC required that the Big Four and the joint stock commercial banks adopt this classification system from 2004 and for all banks by the end of 2005. The provisioning requirements were to be implemented by the end of 2008.

Table 11 China's reported non-performing loans, March 2008

| | Non-performing loans | | |
|---|------------------------|---------------------------|-------------------|
| | Amount (US\$ billions) | Percentage of total loans | Percentage of GDP |
| State-owned commercial banks (Big Four) | 155.9 | 7.05 | 4.38 |
| Joint stock commercial banks | 12.1 | 2.11 | 0.34 |
| City commercial banks | 7.3 | 2.90 | 0.20 |
| Rural commercial banks | 1.8 | 3.68 | 0.05 |
| Foreign banks | 0.5 | 0.49 | 0.01 |
| Total | 177.6 | 5.78 | 4.99 |
| Memo | | | |
| Asset management corporations | 110.9 | | 4.1 |

Source: People's Bank of China, China Banking Regulatory Commission, and Milken Institute staff estimates.

Table 12 Equity to total assets of the Big Four

| Percentages, end of year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|------|------|------|------|------|------|------|
| Agricultural Bank of China | 5.3 | 4.6 | 4.0 | 1.9 | 1.7 | 1.6 | 1.5 |
| Industrial and Commercial Bank of China | 4.5 | 3.8 | 3.3 | 2.9 | 3.9 | 6.3 | 6.2 |
| Bank of China | 6.6 | 6.7 | 5.8 | 5.5 | 4.9 | 7.9 | 7.9 |
| China Construction Bank | 3.9 | 4.7 | 5.3 | 5.0 | 6.3 | 6.1 | 6.2 |
| Aggregate of the Big Four | 5.0 | 3.0 | 4.6 | 3.8 | 4.4 | 5.5 | 5.6 |

Source: BankScope and Fortune Global 500.

of all four institutions, especially ABC, which for all practical purposes is insolvent based upon its real net equity position.⁴¹

To put the condition of the Big Four in better perspective, various performance measures of each of the Big Four are compared to the foreign commercial banks (FCB) operating in China, and Citibank.⁴² As Chart 15 shows, each of the Big Four has substantial room for improvement based upon these measures before being in as good an overall financial condition as Citibank.⁴³ The Chinese banks in the best overall condition are CCB and BOC, while ABC is in the worst condition. What is particularly noticeable is that each of the Big Four has loan loss reserves that are less than 100% of its NPLs, whereas in the case of Citibank the percentage is nearly 174%. By not provisioning more for

⁴¹ The Chinese government is well aware of this situation and was in the process of recapitalizing ABC in 2008.

⁴² As of June 2006, 71 foreign-funded banks have opened 214 operational institutions in China; in particular, 25 cities have been opened for corporate RMB business; 26 foreign financial institutions have made equity investment in 18 domestic banks totaling US\$17.9 billion; 23 joint-venture fund management companies and 8 joint-stock securities companies have been established; 42 foreign entities have become QFIIs (Governor Zhou Xiaochuan, PBOC, September 21, 2006).

⁴³ Of course, Citibank suffered significantly from the US subprime mortgage market meltdown and related problems that emerged in 2007.

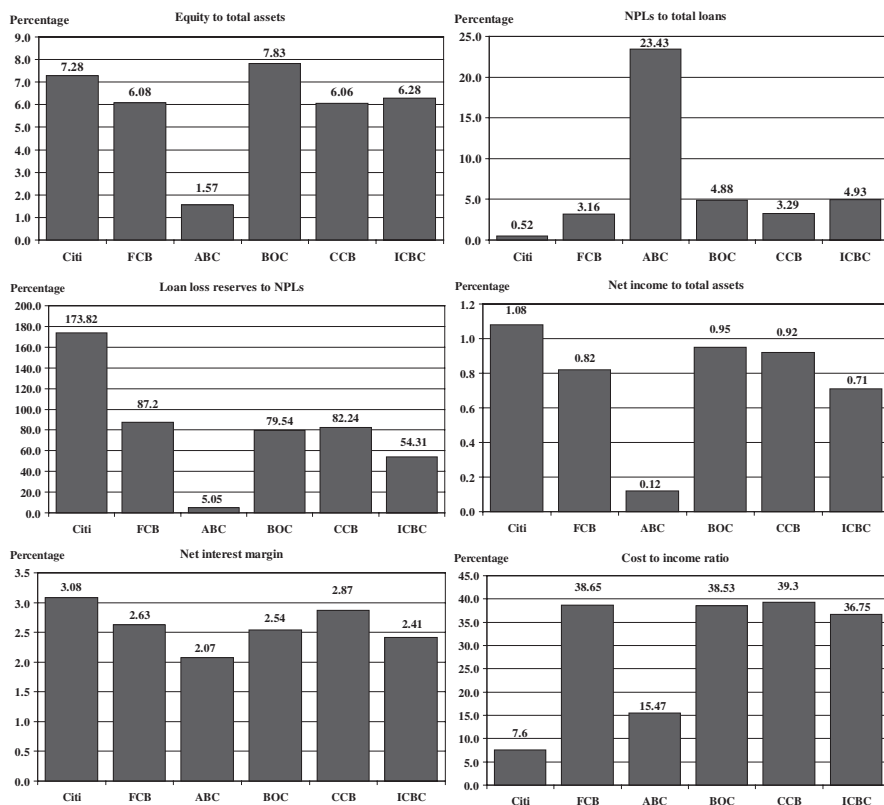


Chart 15 The Big Four's performance compared to foreign banks and Citibank, 2007
Source: BankScope.

NPLs, the net income for each the Big Four is higher than otherwise. Despite this situation, however, BOC, CCB, and ICBC were able to raise substantial amounts of new capital with initial public offerings (IPOs). Specifically, CCB went public in October 2005 and raised \$8 billion, BOC went public in May 2006 and raised \$11 billion, and ICBC went public in October 2006 and raised \$22 billion, the latter being the biggest IPO in history at the time.⁴⁴

The biggest concern at the moment for China's banking sector is the rapid growth in bank credit that is being used to finance various investment and real estate projects, as noted earlier. Loan growth to private sector was 20.3% in 2003, 11.2% in 2004, 9.2% in 2005, 14.3% in 2006, and 19.3% in 2007, cumulatively far faster growth than growth in nominal GDP. Chart 16 shows the improvement in the aggregate NPL ratio for the Big Four as already discussed. It is clear that there has been a dramatic reduction in that ratio to less than 10% from more

⁴⁴ In 2007, the total assets of CCB are \$903,291; ICBC are \$1,188,800; BOC are \$820,198, ABC are \$828,317, and BoCom are \$288,920 all in USD million.

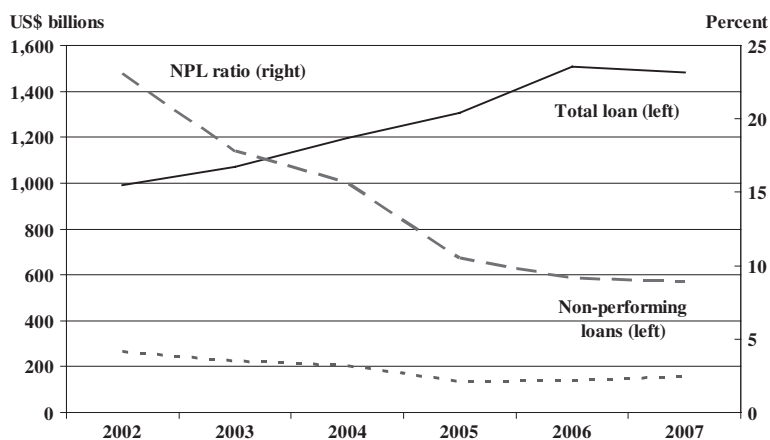


Chart 16 The Big Four's non-performing loan ratio, 2002–2007

Source: People's Bank of China, China Banking Regulatory Commission, and various press releases.

than 20%. The chart also shows, however, that at the same time the total loans of the Big Four have increased nearly 50%. The amount of NPLs has declined but not in proportion to the increase in total loans. It is, therefore, no surprise that the NPL ratio has declined quite sharply over the past several years. The issue now is what portion of all the new loans that have been made in recent years will become non-performing loans as they age. If enough of them are contributing to the “excess production” noted by Prime Minister Wen, then China's banks may need help in disposing of NPLs once again. It is worth noting that if this happens it would not be unique to China. Many transitional country governments have tried to “commercialize” state-owned banks and discovered that it is difficult to produce a lasting change in incentives within these institutions without a change in ownership. Thus, for example, Hungarian authorities recapitalized their state banks annually from 1991 to 1994, before finally selling those banks to foreign investors. The banks continued making losses for a few more years (before becoming profitable), but it was foreign shareholders who suffered. And Polish authorities, recognizing the problems with reforming state banks and yet not willing to sell them all immediately, chose to use stock options, which could only be exercised after privatization, to align managerial incentives with the goal of true commercialization.

The bottom line, as suggested earlier and also as seen in other transition countries, is that banks cannot be reformed in isolation. To the extent that state enterprises still are making losses, they will require financing, and China's banks may be pressed to comply. After all, the banking sector can perform no better than the enterprise sector and the financial sector infrastructure permit.

Apart from this potential problem, China's banking sector has another issue that merits constant attention in the transition from a centrally planned

economy to a socialist market economy. This issue involves the development of a “credit culture” in which risk and return considerations are the primary determinants in the allocation of credit. This requires well-trained accountants, lawyers, and risk analysts who are capable of implementing a policy in which banks price loans on the basis of risk and credit be made available to firms of all sizes and ownership structures on equal terms. China currently has a shortage of such skilled individuals. Furthermore, as regards pricing, Chart 17 shows that before 2004, the rates charged on loans and paid on deposits at banks were tightly regulated by the government so as to lock in a predetermined net interest margin. This was done by setting benchmark rates based upon which bank rates were allowed to vary only within specified limits.⁴⁵ Available information indicates that lending and deposit rates at banks are fairly well clustered even after 2004, however, which limits competition among banks for deposits and suggests that loans are not being priced fully on the basis of risk.⁴⁶ Again, this pattern was seen in other transition countries, with loan pricing being driven more by the needs and condition of the enterprise sector than the requirements of commercial banks. Podpiera (2006) finds that lending rates do not differentiate among different credit risks, and that banks seem to lend without regard to enterprise profitability. This behavior is consistent with that in other transitional economies in which the state enterprise sector had yet to downsize as much as needed and were still absorbing a large share of bank credit.

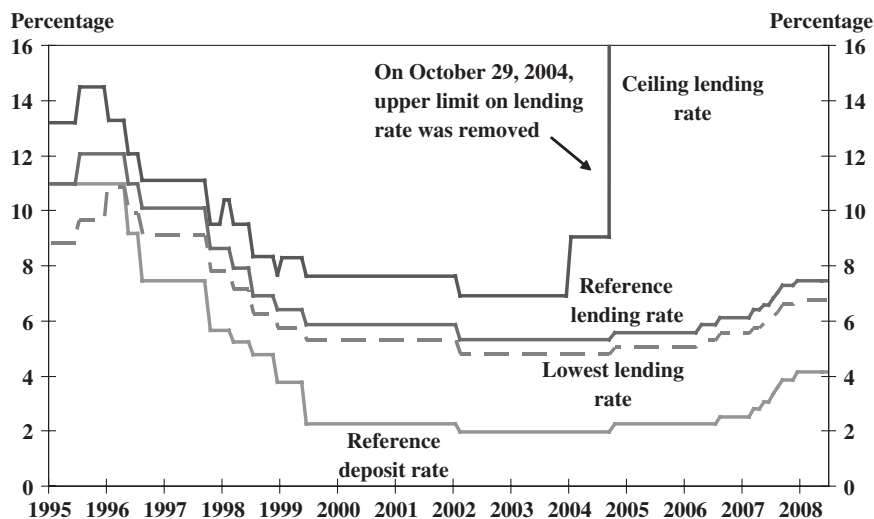


Chart 17 Bank lending and deposit rates (1 year)

Source: People's Bank of China, International Financial Statistics, and International Monetary Fund.

⁴⁵ See Ong (2004).

⁴⁶ See Dobson and Kashyap (2006).

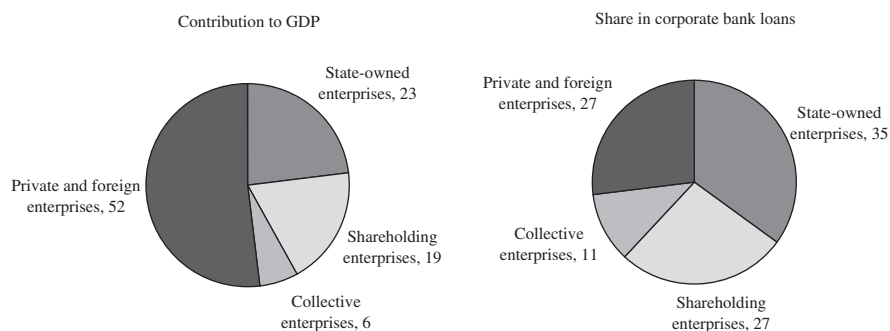


Chart 18 Private enterprises: contribution to GDP vs. share of corporate bank loans
Source: National Bureau of Statistics and the People's Bank of China.

As regards the allocation of credit, Chart 18 shows that private and foreign enterprises contribute slightly more than half of GDP but receive only about one-fourth of total corporate loans from banks. Conversely, state-owned enterprises and collective enterprises contribute only about one-fourth percent of GDP but receive nearly half of corporate loans from banks. This suggests that credit is being allocated inefficiently, perhaps due still to excessive local, if not central, government influence in bank lending decisions, and is consistent with the lack of differentiation according to credit risk, just noted above.⁴⁷ Chart 19

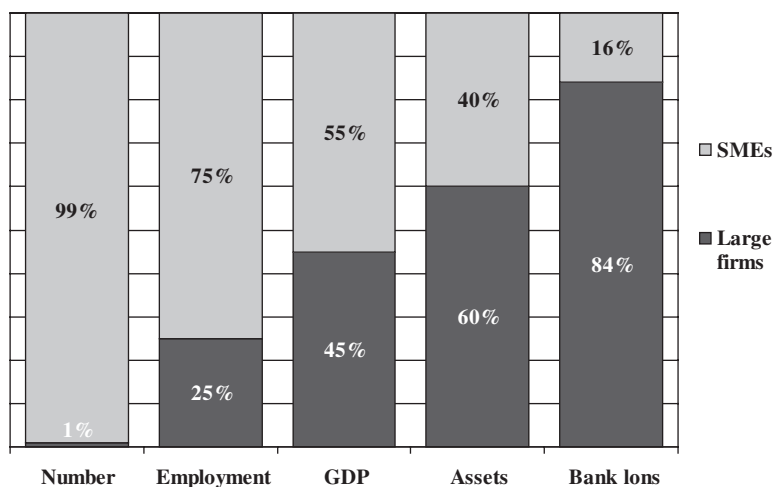


Chart 19 Most bank loans go to large firms
Source: National Bureau of Statistics and the People's Bank of China.

⁴⁷ Du and Girma (2007, p. 37) report that “[u]ntil 1998, the four state-owned commercial banks . . . were instructed not to lend to private enterprises.”

reinforces this view, by showing that small and medium size enterprises (SMEs) contribute a disproportionate amount to GDP but receive a small proportion of bank loans. Liang (2006, p. 22) points out that “[i]n the least developed provinces, overall 60% of financing for the small-and-medium-sized enterprises (SME) comes from informal sources (sometimes over 70%), while the corresponding share is 30% in coastal areas.” Furthermore, Liang indicates that “[t]he interest rates charged by informal financial institutions are significantly above the lending rates charged by the state-owned banks.”

More generally, President Hu Jintao’s signature slogan is the drive for a “harmonious society” – one that would bridge the widening income gaps and ease the strains that are causing social unrest (*Wall Street Journal*, November 22, 2006, p. A4). As applied to financial development, Mr. Xiang Junbo, Deputy Governor of PBOC, stated on September 1, 2006, that:

Financial industry is the core of modern economy. More efforts should be made to build a harmonious financial system compatible with the comprehensive, balanced and sustainable economic development. To be explicit, we will make efforts in the following aspects. First, harmonize the relationship between economic and financial development. Second, foster a harmonious system for financial institutions. Third, build a harmonious financial market. Fourth, promote the development of regional financial industry in a harmonious way. Fifth, blueprint the harmonious reform, development and opening-up of financial industry.

These are certainly commendable goals and hopefully ones that will be achieved through the recent and ongoing reforms in China’s financial system.

6 Summary and Conclusions

China is undoubtedly unique and abounds both with substantial opportunities and with significant challenges. Its rapid rate of GDP growth and the boom in exports and international reserves are without precedent. The latter phenomenon of course is a joint product: not only is it unprecedented for an emerging market to be such a large creditor, but it is equally unique for a reserve currency country to be such a large debtor. Still, the reserve buildup is at least in part a testimony to China’s competitiveness and of course to its massive savings rate. Moreover, by joining the WTO and welcoming capital inflows, it is signaling a desire to open its economy to international influences and, in turn, to influence international developments.

The government likewise is to be commended for taking on the challenge of reforming an immense financial system. This sector is a challenge because it is necessarily the mirror image of the real economy and accordingly cannot be reformed in isolation. To the extent that there are “zombie enterprises,” that is, firms that are dead in the sense of not being able to be managed without sustaining losses and yet still alive and utilizing resources, the financial sector, and usually the banks, will be called on to provide funding. Since the state enterprise sector is still large, the government faces the daunting task of transforming the zombie

enterprises into viable enterprises. The balancing act being undertaken by authorities is to keep managing the economy so that the rapid growth from the non-state sector will be able to cover the losses of the state sector.

Chinese officials are aware of this challenge. Unfortunately, the problems do not end there. The further difficulty is that just as the public sector around the world has not proved to be an efficient manager of enterprises, it has also not been an efficient manager of banks.⁴⁸ A solution that would seem to work in theory would be to grow the private sector's role in the banking system, using banks that operate on market principles as a way to continually starve inefficient enterprises of credit, while supplying credit to the productive enterprises. Finding a way to make this work in practice will require both finesse and good fortune on a scale commensurate with China's growing importance in the world economy.

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Appendix 1: China's International Investment Position, 2006 and 2007

| US\$ billion | 2006 | 2007 | | 2006 | 2007 |
|-------------------------------------|--------------|--------------|--------------------------------------|--------------|--------------|
| Net position | 611 | 1,022 | B. Liabilities | 1,033 | 1,266 |
| A. Assets | 1,644 | 2,288 | 1. Foreign direct investments | 613 | 742 |
| 1. Direct investments abroad | 91 | 108 | 2. Portfolio investment | 121 | 143 |
| 2. Portfolio Investment | 229 | 240 | 2.1 Equity securities | 107 | 125 |
| 2.1 Equity securities | 2 | 19 | 2.2 Debt securities | 14 | 18 |
| 2.2 Debt securities | 228 | 221 | 3. Other investments | 300 | 381 |
| 3. Other investments | 252 | 406 | 3.1 Trade credits | 104 | 132 |
| 3.1 Trade credits | 116 | 142 | 3.2 Loans | 99 | 103 |
| 3.2 Loans | 67 | 89 | 3.3 Currency and deposits | 59 | 98 |
| 3.3 Currency and deposits | 47 | 50 | 3.4 Other liabilities | 38 | 47 |
| 3.4 Other assets | 21 | 126 | | | |
| 4. Reserves assets | 1,073 | 1,535 | | | |
| 4.1 Monetary gold | 4 | 5 | | | |
| 4.2 Special Drawing Rights | 1 | 1 | | | |
| 4.3 Reserves position in the fund | 1 | 1 | | | |
| 4.4 Foreign exchange | 1,066 | 1,528 | | | |

Source: State Administration of Foreign Exchange.

⁴⁸ The French banking system used to be cited as an exception to this statement, until the massive failure of Credit Lyonnais. And the German banking system, the other exception, has been beset by inefficiency and losses in their state banks.

Appendix 2: Top 10 Chinese Mergers and Acquisitions Abroad, January 1995–June 2008

| Deal value US\$ millions | Completion date | Acquirer | Target | Target nationality | Target industry | Cash only (Y/N) |
|-----------------------------|--------------------|---|--|--------------------|------------------|--------------------|
| 14,316 | 1-Feb-08 | Aluminum Corp of China; Alcoa Inc | Rio Tinto plc (12%) | United Kingdom | Mining | Y |
| 5,490 | 15-Feb-08 | Industrial & Commercial Bank of China – ICBC | Standard Bank Group Ltd (20%) | South Africa | Finance | Y |
| 4,180 | 26-Oct-05 | China National Petroleum Corp – CNPC | PetroKazakhstan Inc | Kazakhstan | Oil & gas | Y |
| 3,652 | 10-Aug-06 | China Petroleum & Chemical Corp – SINOPEC | Udmurtneft OAO (99.49%) | Russian Federation | Oil & gas | Y |
| 3,425 | 15-Dec-06 | Bank of China Ltd | Singapore Aircraft Leasing Enterprise Pte Ltd (SALE) | Singapore | Transportation | Y |
| 3,117 | 24-Mar-08 | China Huaneng Group | Tuas Power Ltd | Singapore | Utility & energy | Y |
| 3,000 | 14-Aug-07 | China Investment Corp | Blackstone Group LP (10%) | United States | Finance | Y |
| 2,981 | 14-Aug-07 | China Development Bank | Barclays plc (2.64%) | United Kingdom | Finance | Y |
| 2,935 | 4-Apr-08 | State Administration of Foreign Exchange | Total SA (1.6%) | France | Oil & gas | Y |
| 2,692 | 19-Apr-06 | China National Offshore Oil Corp – CNOOC | Oil & Gas Assets (Akpo Offshore Oil & Gas Field in Nigeria) | Nigeria | Oil & gas | Y |

Source: Dealogic.

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