

## Chapter 19: Financial System

An efficient financial system can foster growth and prosperity, and flaws in financial systems—particularly those that emerge during the process of liberalization—are among the most important causes of economic crisis and recession. Earlier chapters of this book have described China's rapid growth, emphasizing the role of high saving and investment, the creation of new capital and the central role that these processes play in the growth and development process. Yet these processes in the real economy could not take place without a well-functioning financial system. The financial system comprises the set of institutions that match savers with investors: The financial system channels saving into investment, through a process called intermediation.

Intermediation is not the sole function of the financial system: the financial system must also supply an appropriate volume of money and related payment services. When these are provided smoothly, transactions can take place quickly and efficiently. As financial systems develop, transaction services become immensely more convenient and efficient, such that payment can now often be accomplished with a single swipe of an enabled smartphone. Moreover, the volume of money that the financial system provides must be appropriate to the macroeconomic needs of the economy (discussion in Chapter 20).

As an economy develops, intermediation steadily creates new financial assets (such as bank deposits, stocks and bonds), such that the quantity of financial assets held grows more rapidly than GDP, a process referred to as financial deepening. The act of saving creates a gradually expanding pool of savings, (in parallel to the process in which the physical capital stock of the economy typically grows faster than GDP). In fact, as this process continues, the variety of financial assets also increases. Most importantly, financial assets are created with different risk characteristics. Some savers are willing to bear high levels of risk in search of high returns. Other savers purchase insurance, which allows them to reduce their overall risk levels. In the development process, the stock of financial assets becomes increasingly diversified, a process called financial broadening. This process is never-ending: on-going financial innovation creates new assets that combine risk and return in new ways.

While financial systems make it easier for individuals and organizations to adjust risk, they also create new kinds of systemic risk. Strict financial regulation can sharply reduce overall financial risk, but regulation is never perfect. Ongoing innovation creates new types of risk that regulators may be slow to perceive. Moreover, the sums of money at play in the financial system are, by definition, so enormous that there are always dangers with corruption and vested interests that resist intrusive regulation. Risk is especially high during the financial liberalization process, as inexperienced regulators encounter sudden movements of capital on an unprecedented scale.

China's financial system, like everything else in China, has grown and diversified over the past forty years. Not surprisingly, given China's high rates of saving and investment, we find that a steady process of financial deepening has accompanied development. The development of the financial system has been basically successful, in the narrow sense that it has provided adequate intermediation to fund high investment and power economic growth. Moreover, financial broadening has also occurred. Nonetheless, the financial system, through 2015, has remained dominated by a relatively small number of large banks, all of them state-owned. This is not because of an absence of reform: on the contrary, multiple waves of reform have reshaped China's financial system since the mid-1990s. However, financial reforms in China have often failed, or met with

partial success only to face retrenchment. As a result, we often see a pattern of three steps forward, two steps back in financial reforms.

As of 2015, China system remains distorted and subject to financial “repression.” Savers face a restricted range of choices. And yet, as liberalization has proceeded, an increasing volume of saving has escaped from the regulated (and “repressed”) formal financial system into lightly regulated “shadow banking” sectors. Moreover, the expansion of financial assets has been accompanied by a build-up of low quality or non-performing assets, particularly since 2009. Thus, in 2015, China faces a dual challenge of pushing forward with reform while also restructuring existing debt. While Chinese financial regulators and technocrats have accumulated valuable experience in these fields, the challenge is still great.

In this chapter, I’m gonna first look at overall intermediation, then talk about the development of the banking system. Essential framework. Then banks. Then capital markets. Then dual growth of debt and shadow bank products. Then we’ll worry about the risks of opening up the capital account. Thank you!

## **19.1 High Saving and Intermediation**

### **19.1.1 The Flow of Funds Table**

In this first section, we take a look at the financial system in context by looking at a simplified “flow of funds” table (Table 19.1). The Flow of Funds is a way of looking at Gross Domestic Product through the Income Approach (in Chapter 6, we looked at the Production Approach and the Expenditure Approach). This divides the national economy into households, businesses and government, and looks at the income each of these big sectors. (The original table divided business into financial and on-financial sectors, which have been consolidated here.)

The flow of funds table immediately shows us that China saves a lot: all three sectors have significant positive saving, but household saving is particularly high and accounts for more than half of total saving. To examine this table, let's start with the second column, Business. Business produces almost two-thirds of the value-added in the economy (33.5 trillion). It pays out 12.8 trillion in wages, and then after paying for capital and land; remitting taxes to the government; and undertaking various transfers, is left with a net disposable income—or retained, after-tax profit—of 9.6 trillion. By definition, businesses cannot “consume” (only

**Table 19.1. 2012 Flow of Funds**

(Trillion RMB; Simplified)

	Household	Business	Government	Total	[Foreign]
<b>Value-Added</b>	<b>14.5</b>	<b>33.5</b>	<b>3.9</b>	<b>51.9</b>	
Wages Received	25.7			25.7	
Wages Paid	9.4	12.8	3.4	25.6	0.1
<b>Disposable Income (after tax)</b>	<b>32.1</b>	<b>9.6</b>	<b>10.1</b>	<b>51.8</b>	
<b>Consumption</b>	<b>19.1</b>		<b>7.1</b>	<b>26.2</b>	
<b>Saving</b>	<b>11.7</b>	<b>9.6</b>	<b>3.0</b>	<b>25.6</b>	
(Percent of Income)	36%	100%	30%	49%	
<b>(Plus capital transfer &amp; asset disposal)</b>	<b>(1.4)</b>	<b>(-1.7)</b>	<b>(0.3)</b>	<b>0</b>	
<b>Investment</b>	<b>6.3</b>	<b>16.4</b>	<b>2.6</b>	<b>25.3</b>	
<b>Net Financing</b>	<b>8.2</b>	<b>-8.5</b>	<b>0.6</b>		<b>-1.4</b>

individuals can consume, so businesses distribute money to individuals, such as owners), so all the 9.6 trillion is saving. This business saving funds part of the 16.4 trillion in investment that businesses perform, but it's not enough and (after disposing of assets), businesses borrow 8.5 trillion (16% of GDP) in net financing from other sectors. An efficient financial system allow businesses to access this financing at lowest cost, and in flexible forms.

The Household sector is shown in Column 1. This is a broad definition of households that includes unincorporated household businesses. In fact, households defined this way—which include farms and small shops and service businesses—produce a very substantial amount of total value-added (14.5 trillion, or 28% of the national total) and also pay other households 9.4 trillion in wages, almost as much as businesses pay out. This broadly defined household sector has a very high saving rate—36% of net income. It invests 6.3 trillion in new fixed assets, which includes investment in household businesses plus self-constructed housing. Even after this investment (and receiving 1.4 trillion in capital transfers from the business sector), households have a net surplus of 8.2 trillion which is available to be lent to, or invested in, the business sector. A financial sector that provides effective intermediation services gives households choices that allow them to invest their savings in the various forms that individual households desire.

Finally, the government sector is also a positive saver, and even has a net saving surplus. Government saves 30% of income, most of which it invests, but still has 0.6 trillion available, mainly in the form of social

security fund balances which it deposits in the bank. Unlike the case in many developed countries, government does not draw from the pool of national saving by borrowing to fund overall budget deficits. (As discussed in Chapter 18, China has a budget deficit in terms of ordinary tax revenues and expenditures, but this is more than offset by the surplus in various government funds accumulated).

### **19.1.2 Primary Income Distribution and Saving**

The distribution of income among household, business and government sectors is called the “primary income distribution.” The character of China’s primary income distribution can immediately explain part of China’s high overall national saving (49% of national income is saved, according to the Flow of Funds Table). First, we see that business income is a relatively high share of national income, 16% in 2012. In the US, after-tax corporate profits were about 10% of GDP in 2013-2015, and this was a historically high figure, with the long-term average close to 6% (Yardeni 2015). Since nearly all corporate profit is saved and re-invested, a high share of corporate profit automatically leads to a higher saving rate. Bayoumi, Tong and Wei (2012) show that corporate saving behavior in China is not unusual at the individual corporation level: therefore it is the high corporate share that is responsible for large contribution of corporate behavior to national saving.

Conversely, the household share of primary income distribution is relatively low. The wage share is 50% of GDP (compared to about 65% in most developed countries), and the total household share, including the net income of household businesses is only 60% of GDP. Since we expect saving from wages to occur at a lower rate than saving from net income of incorporated or unincorporated businesses, a lower wage share is also associated with a high national saving rate. Finally, the fact that government is a net saver also obviously contributes to high national saving.

### **19.1.3 Causes of the High Household Saving Rate**

Even after accounting for primary income distribution, the household saving rate is still extremely high. Economists have advanced a number of explanations for this fact. Some are widely accepted, whereas others demand further research. The widely accepted contributing factors to high household saving include:

#### **19.1.3a Unincorporated Businesses**

In all economies, unincorporated businesses have high saving rates. Small businesses often have difficulty accessing credit (in China and elsewhere) and they must grow their businesses through retained earnings. Since unincorporated businesses in China are numerous, and included in the household sector, this pushes up the measured household saving rate.

#### **19.1.3b Rapid Income Growth**

Household income growth in China has been extraordinarily fast for a long time. As shown in Chapter 9, household income growth has been around 8% per year (CHECK) for over 30 years. Whenever household income growth is rapid, saving rates rise. Why does this occur? Economists agree that households work with a set of expectations about their lifetime, or “permanent” incomes. They expect to spread consumption over their lifetimes by saving in high income periods. In general, when incomes rise rapidly, households update their expected lifetime income more slowly than their short-term income is changing. People cautiously adapt to improving income. The natural effect of habit in human behavior strongly reinforces this factor. Consumption

habits change slowly, particularly those frugal and prudent habits formed when incomes were low. As people move out of low income status, small luxuries are—at first—more than enough to satisfy. The result is that a high proportion of incremental income is saving. This factor is definitely at work in today's China.

A number of other factors have been suggested as relevant to China's high household saving rate:

### **19.1.3c Life Cycle Saving**

The concept of life cycle saving was introduced into Chapters 6 and 7, discussing the impact of the demographic dividend. Since households are expected to smooth out consumption over the lifetime of family members, but income peaks between 30 and 55, we expect households to dis-save when there are large numbers of children and elderly, and save when the proportion of household members at peak income-earning years is high. However, microeconomic studies of Chinese saving (i.e., those using individual household data) have not been able to demonstrate this relationship. Saving remains high even when the head of the household is elderly (Chamon and Prasad; Cao and Modigliani; Etc.). With evidence for life-cycle saving weak, economists have sought other explanations.

### **19.1.3d Precautionary Saving**

One common view is that Chinese households experience an unusually high demand for precautionary saving. This argument is usually based on the combination of two factors: the rapid decline in social security institutions during the 1980s and 1990s, combined with the shift to single child households. In this view, Chinese parents traditionally relied on their children (and specifically their sons) for social security in old age. The rapid reduction in fertility rates has meant that few parents have more than one son to support them (both), and many have no male offspring. At the same time, rapid cultural change creates doubt about the willingness of children to support their parents as fully as in the past. Yet while the traditional household-based system of social support has weakened, government-provided social security has only slowly begun to provide an alternative social safety net. Most rural households have no government support to look forward to, and the proportion of urban dwellers covered by generous state enterprise pensions has declined slowly. A nation-wide system of pensions has gradually been created (Chapter 18), but its payouts are much lower than the previous system and it does not yet have a track record that inspires confidence. Similar considerations apply to medical insurance and the risk of health crises: health care is still expensive and access to medical insurance tentative and uncertain. Given these circumstances, it is argued, Chinese households rationally increase their precautionary saving.

### **19.1.3e Household Formation**

It is sometimes argued that Chinese households are distinctive in the effort they put into saving for new household formation. As young couples contemplate marriage, they face a widely accepted norm that the husband's family should provide a home (apartment or house) for the new married couple. This expectation, it is argued, raises saving among all members of the extended family, who chip in to provide the young couple with the real estate asset. Age at first marriage is increasing (according to the 2010 census, almost 27 for men, and 25 for women), and housing is expensive, especially in big cities, so external conditions mean that this explanation is plausible. According to one large-scale survey, 52% of unmarried women believe that home-ownership is a prerequisite to marriage ("Love" 2012). Wei and Zhang (2009) develop an interesting extension of this approach: they argue that males must compete in an increasingly competitive marriage market.

If young couples feel they must dispose of substantial financial resources by the time they are (for example) thirty, this obviously creates a saving dynamic that is very different from the traditional life cycle saving model, and also very different from household saving patterns in the US.

It is striking that the effects of both the precautionary saving motive and the household formation motive display the strong influence of China's "one child" policy. Rapid change in household characteristics—triggered by government actions—has induced large changes in household saving behavior. At this time, those changes are only partially understood. In an interesting recent paper, Choukhmane, Coeurdacier and Jin (2014) argue that a key may be found in analyzing the response of different generations to the one child policy. Older generations have increased their precautionary saving, while younger generations increased saving for household formation: the result has been increased saving across-the-board that doesn't correspond to the ordinary predictions of the life cycle saving model. They also report microeconomic evidence that provides initial support for their analysis.

#### **19.1.4 The Future of China's High Household Saving**

The basic fact of China's extremely high household saving rate is essential to understanding the functioning of China's financial system. As demonstrated below, returns to financial saving for households have been low for the past decade, yet Chinese households have continued to save at high rates. This apparent contradiction may be less troubling if we accept that (in comparative context) Chinese households have an unusually high propensity to save. External characteristics—extremely rapid income growth; high rates of unincorporated business; and the impact of the one child policy on household formation and precautionary saving—provide circumstantial evidence that supports this interpretation.

As Chinese society faces rapid aging, the life cycle hypothesis predicts that household saving will decline. Indeed, this is what has happened in Japan: as society has aged, high household saving rates declined to very low levels. It is not yet clear whether the same process will occur in China. However, as generations retire that grew up under the one child policy, and which have had time to grow accustomed to higher consumption levels than their parents, we might expect that the fundamental dynamic of the life cycle process would once again be evident. From this perspective, household saving rates in China should be expected to gradually decline from today's highs.

### **19.2 Types of Financial System**

Financial systems are adapted to the distribution of resources and decision-making authority in an economy. In particular, they are closely associated with corporate structure, especially firm size and the role of business groups. Accordingly, China's financial system has evolved, not just through reform and marketization, but also through different configurations that reflect the organization of the economy. China has evolved through three stages: a command economy financial system; a bank-dominated partially reformed system; and the current (2015) rapidly-evolving, mixed system.

#### **19.2.1 The Command Economy Financial System**

The command economy operated with a financial system completely different from today's economy, and that filled a completely different function from today's system. Intermediation from households to business was a secondary and almost insignificant job of the system. In the first place, household income was strictly limited,

so households rarely had any surplus income to save: financial saving through the 1960s and 1970s averaged under 3% of household income, compared to 30% today. In the second place, many of the institutions of the command economy substituted for money-based transaction. Households were not allowed to run small-scale businesses which would have needed cash and rely on retained profits to invest. In the rural economy—then the largest part of the economy—collectives transacted directly with government commerce and financial institutions, and only distributed money to households once at the end of the year. In 1978, only 28% of agricultural procurements were paid for with cash; the remainder were paid by eliminating loan balances already on the books, or by crediting collectives for later distribution.

China had a fully-developed set of financial institutions under the command economy, but overall the financial system was “passive” and remarkably shallow. The government-run banking system made up virtually the entire financial system, which provided trade credit and payments services to facilitate the exchange of goods. Credit enabled firms to hold inventories, but there was no long-term lending for investment projects and, of course, no stock or bond markets. The financial system was purely “passive,” meaning that important economic decisions were never based on financial considerations: Decisions about which investments to undertake were made by planners and financed from the government budget; banks merely accommodated the physical flows that the planners arranged. In the days of the planned economy, these banks were subdivisions of a single government bank, sometimes dubbed the “monobank” because it was a single organization with a virtual monopoly on financial business. The monobank kept the books on transactions that were mainly among divisions of the state-run economy, serving as accountant and cashier. A large retail banking network mainly served to siphon up whatever savings households managed to set aside, and transfer them to the state-run economy. (In practice, this meant that the rural credit cooperatives that existed in nearly all townships (market towns) mainly funneled surpluses to the urban economy. Nevertheless, that provided households the opportunity to put any savings they had painstakingly accumulated safely in the bank. Moreover, a system of trade credit extended into virtually every township (commune) in the country. Although it was not an efficient system, it was in place to support transactions beyond local areas. These were nontrivial accomplishments for the low-income economy that China was at that time.

## **19.3 Overview of Transformation**

During the 1980s and 1990s, China created a financial system that was generally adapted to the needs of a market economy.

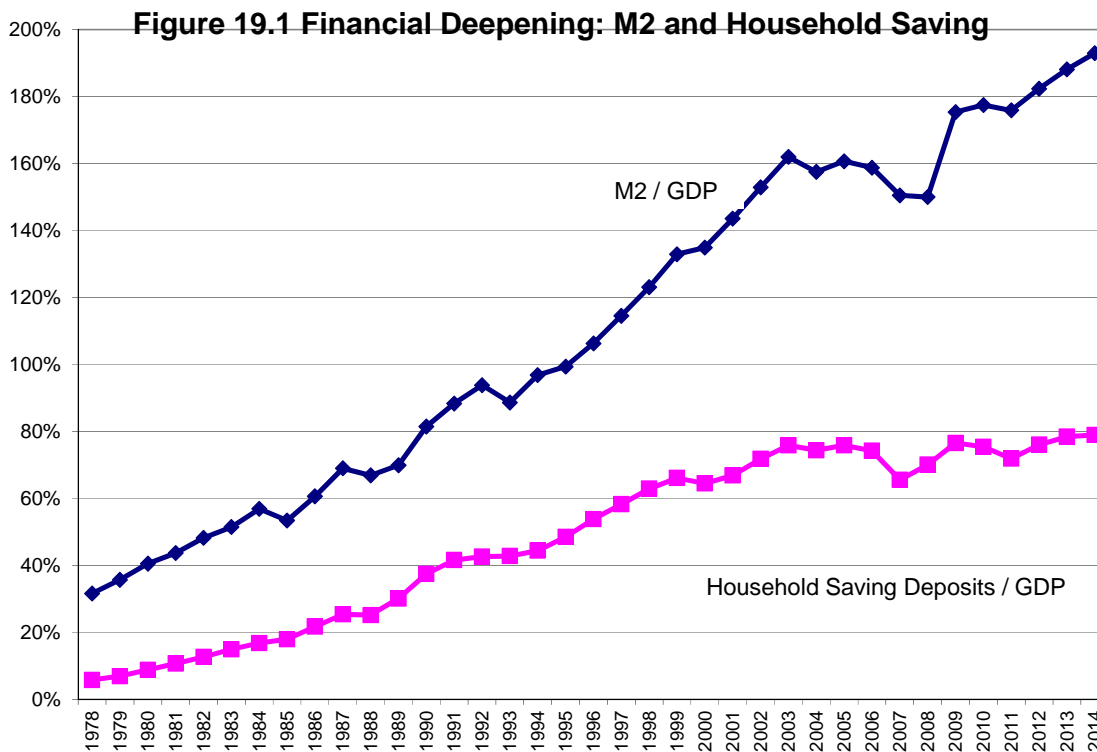
### **19.3.1 Creation of an Institutional Framework**

The precondition to market transformation of the financial system was to break up the “monobank,” transferring it from a single bureaucratic monopoly into a banking system composed of diverse institutions that had different goals and functions, and that interacted on a market basis. During the 1980s, four state-run commercial banks—the “Big Four”—were carved out of the monobank and given independent identities and assigned sectors of operation. In 1984 the People’s Bank of China (PBC) was separated from the rest of the monobank, and began a long process of conversion into a true central bank. In 1994, three “policy banks” were set up to take over the government-directed lending of the “Big Four,” freeing them to become truly commercial banks. In 1994-95, new laws were passed that provided a legal framework for the Commercial Banks and the PBC. The creation of the China Bank Regulatory Commission (CBRC) in 2003 (verify date) completed the institutional set-up of a modern banking system. The People's Bank of China, in addition to the typical central

bank responsibility for monetary policy, also has substantial regulatory authority because of its responsibility to promote the stability of the financial system. With the entry of numerous local and joint-stock banks (see below), the commercial banking sector has broadened and diversified. Thus, shortly after the turn of the century, China had developed the full complement of banking institutions. There is a central bank, the PBC, a regulatory body, the CBRC, and a diverse set of commercial banking and non-banking institutions.

### 19.3.2 Deep but Narrow: Financial Deepening under Bank Dominance

The basic features of the evolution of the financial system can be captured in two points: first, the financial system has gotten much deeper (Figure 19.1). However, the system remains quite “narrow,” in the sense that it continues to be dominated by the banking system. We examine each of these points in turn. As China marketized, households and unincorporated businesses increased their saving, and those savings predominantly flowed into the banking system. The banking system was transformed, becoming an important channel for household surpluses to be invested by businesses, and taking on the role of intermediation typical in a market economy. The measure of “broad” money, M2, consisting of currency in circulation plus demand and savings deposits, increased steadily from 32% of GDP in 1978 to 194% in 2014 (Figure 19.1). This is much higher than most other economies, and higher than East Asian economies, such as Japan. The most important component of China’s financial deepening was the increase in household balances: household saving deposits increased from 6% to almost 80% of GDP between 1978 and 2003, before levelling off. The substantial increases in both these ratios meant that financial resources were available for investment in China.





The steady deepening of the financial system in China contrasts with the experience of other transitional economies. It would be reasonable to anticipate that the transition from a socialist to a market economy should lead to financial deepening—after all, a huge demand suddenly opens up for previously unavailable financial services. But in fact, in many of the European transitional economies the sudden release of prices in the face of pent-up inflationary pressures led to a surge of inflation that wiped out the value of accumulated financial balances. Many households found that their life savings had become worthless. In Russia, for example, broad money [M2] declined from 80% to only 20% of GDP between 1990 and 1993. At the same time, the economic disruption that accompanied the “big bang” caused incomes to drop, and new saving declined even more. In those economies, financial systems shrank even more rapidly than the overall economy declined, and they had to be rebuilt from the ground up.

China’s more cautious approach to transition averted this kind of financial demolition. Savings held in the banking system have been protected. During periods of high inflation (at the peak of the macroeconomic cycles described in Chapter 20), household term-saving deposits have been given supplemental interest at the rate of CPI increase, protecting the value of deposits. As a result, China has a far “deeper” financial system than any other major transition economy.

**Table 19.2. Funds Raised by Domestic Non-Financial Companies**

	Percent of Funds Raised in Domestic Financial Markets			
	Bank Loans	Treasury Bonds	Corporate Bonds	Stock Issuance
2000	72.8%	14.4%	0.5%	12.3%
2001	75.9%	15.7%	0.9%	7.6%
2002	80.2%	14.4%	1.4%	4.0%
2003	85.2%	10.0%	1.0%	3.9%
2004	82.9%	10.8%	1.1%	5.2%
2005	78.1%	9.5%	6.4%	6.0%
2006	82.0%	6.7%	6.7%	5.6%
2007	78.9%	3.6%	4.4%	13.1%
2008	83.1%	1.7%	9.1%	6.1%
2009	81.2%	6.3%	9.5%	3.0%
2010	75.2%	8.8%	10.5%	5.5%
2011	62.7%		10.7%	

Source: PBC China Monetary Policy Reports

Yet this achievement also came with costs and limitations. With a banking system flush with cash, government officials were naturally tempted to tap into bank surpluses to fund the protected state enterprise sector. As described in Chapter 13, financing for SOEs shifted strongly toward reliance on bank financing during the mid-1980s. In part, this change was a conscious policy response to the decline in budgetary revenues and represented an attempt to shift investment financing from costless budgetary grants to interest-bearing, repayable loans. However, bank financing was also used to prop up numerous loss-making SOEs. This reliance on the banking system had further repercussions in the hesitancy of policy-makers to allow other types of financial institutions to play an important role in the financial system. Capital markets—stocks and bonds—

have developed, particularly after the establishment of the Shanghai and Shenzhen stock exchanges in 1992. Financial and institutional innovation has been nearly continuous since the 1980s. However, policy-makers were very cautious about innovations that might draw a substantial amount of funds from the banking system. Therefore, policy-makers were careful to maintain control over the overall financial system, and tried to maintain robust flows of saving into the banking system. This helps explain the second of the major characteristics of the Chinese financial system: it has remained dominated by the banking system, and capital markets have remained relatively underdeveloped. As Table 19.1 shows, banks have dominated the financial system in China at least through 2009, accounting for around 80% of the funds transferred through formal financial institutions.<sup>1</sup> Corporate bonds were practically non-existent until 2005, while the stock market has fluctuated enormously in importance over the past twenty-five years. Each of these components of the financial system is discussed below, and after 2010, a new relationship between the banking system and capital markets began to emerge. Still, in broad strokes, it remains true that China's financial system remains narrow and bank dominated. Other East Asian economies have large banking systems, but because China's most important banks are state owned, China's financial system is also state dominated.

## **19.4 The Banking System**

The “Big Four” State-owned commercial banks used to account for nearly all the assets in the banking system. Only the Rural Credit Cooperatives (RCCs) possessed assets, and these were tiny compared to those of the State Banks. The long-term story of the evolution of the banking system has been the decline of the share of these State Banks, to just over 40% of the total by 2014 (Table 19.3). However, the full story is much more complex than this. The financial sector has not simply “grown out of the plan” by opening up to entrants. On the contrary, the state-owned commercial banks have grown strongly, and are now among the largest banks in the world. Moreover, the new entrants have been carefully vetted, and nearly all of them have close ties to the government, either central or local. Finally, as of 2015, virtually none of the important banks was truly private: only in 2014 were a few initially tiny private banks granted legal certification.

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<sup>1</sup> After 2011, the PBC stopped reporting the data shown in Table 19.2. In part, this shift in data reporting reflected shifts in the underlying structure of finance, discussed below.

**Table 19.3: Banking Sector Assets (by Type of Bank)**

	Number	Employees	2003	2007	2010	2013	2014
<b>Policy Banks</b>	<b>3</b>	<b>62,520</b>	<b>7.7%</b>	<b>8.1%</b>	<b>8.0%</b>	<b>8.3%</b>	<b>9.2%</b>
<b>Equitized Large State Banks</b>	<b>5</b>	<b>1,764,617</b>	<b>58.0%</b>	<b>53.7%</b>	<b>49.2%</b>	<b>43.3%</b>	<b>41.2%</b>
<b>Joint-stock Commercial Banks</b>	<b>12</b>	<b>410,816</b>	<b>10.7%</b>	<b>13.7%</b>	<b>15.6%</b>	<b>17.8%</b>	<b>18.2%</b>
<b>City Commercial banks</b>	<b>133</b>	<b>346,816</b>	<b>5.8%</b>	<b>6.5%</b>	<b>8.2%</b>	<b>10.0%</b>	<b>10.5%</b>
<b>Rural Banks and RCCs</b>	<b>2,350</b>	<b>830,241</b>	<b>9.7%</b>	<b>10.5%</b>	<b>11.2%</b>	<b>12.1%</b>	<b>12.8%</b>
<b>Non-bank Financial Institutions</b>			<b>3.3%</b>	<b>1.8%</b>	<b>2.2%</b>	<b>2.6%</b>	<b>2.9%</b>
<b>Foreign Banks</b>	<b>41</b>	<b>47,412</b>	<b>1.5%</b>	<b>2.4%</b>	<b>1.8%</b>	<b>1.7%</b>	<b>1.6%</b>
<b>Postal Savings Bank</b>	<b>1</b>		<b>3.2%</b>	<b>3.3%</b>	<b>3.7%</b>	<b>4.1%</b>	<b>4.1%</b>

#### 19.4.1 Shape of the Banking System Today

The shifting balance of control in the banking system cannot be fully captured by just looking at the share of the State commercial banks. While their share has declined, the share of Policy Banks has increased, as has the share of the Postal Saving Bank. Together, the share of these three directly government controlled banks has still decreased, but less drastically than the commercial banks alone: from 69% of assets in 2003, the three still controlled a majority of assets, but only 55%, in 2014 (instead of declining by 17 percentage point, they declined only 14 percentage points). However, this is only part of the story. As we describe below, government influence is still extremely strong in other parts of the banking system, although it is impossible to simply assign them to an unambiguous “state-controlled” category. Therefore, we briefly describe each of the main segments in turn.

#### 19.4.2 Policy Banks

The Policy Banks are the part of China’s banking system that remains under direct government control, with all three of the Policy Banks 100% owned by the Chinese government. The story of China’s policy banks is a remarkable one. At the time of their creation in 1994, most commentators thought of the policy banks primarily as instruments to relieve the commercial banks of their policy lending responsibilities. At worst, they might become warehouses for the unprofitable loans that commercial banks did not wish to undertake. However, after 2003, powered by a revival of government industrial policy, the policy banks have themselves played a large and increasingly important role. Of the three policy banks, the China Development Bank (CDB), with over 10 trillion RMB in assets in 2014 is by far the largest, and the most important. The Agricultural Development Bank, with 3 trillion RMB in assets is the next largest, and the China Export-Import Bank (Exim Bank), with 2.4 trillion RMB in assets, rounds out the set. All three development banks play important roles: for reasons of space, we discuss only the China Development Bank here.

The China Development Bank (CDB) core mission is to provide long-term financing for large infrastructure projects and priority heavy industries (Sanderson and Forsythe 2012). However, this mission is constantly adapted to the needs of the central government. The difference between CDB and other banks is most obvious in two aspects: (1) many CDB projects are assigned to the bank by the Chinese government, often by the State Council; and (2) CDB funds do not come from deposits, but from bonds which the CDB issues and which are bought predominantly by the commercial banks. The CDB is thus tied more closely to the government than any other financial institution, but it is not directly funded by budgetary allocations, but rather by a separate indirect tax on the banking system (since commercial banks are required to buy CDB bonds). Despite its close ties to the government, the CDB has tried hard to build a high-quality professional organization: it is well run; it enforces financial discipline on its borrowers, and while it does not fully price in the risk of the projects it funds, it generally charges significant positive interest rates for its loans.

CDB's importance is obvious in three areas:

1. CDB has provided massive finance for huge projects, such as the Three Gorges Dam which it funded for fifteen years. CDB funding is often behind super-large projects. More recently, CDB's governmental mandate has been broadened as it has been called on to fund additional items such as hi-tech "strategic emerging industries" (Chapter 15) and affordable housing initiatives. CDB lending carries out national government priorities.

2. CDB's international lending is large and significant (Downs). It includes international development projects of large size and high visibility, as well as direct-to-government loans. CDB's loans to oil-exporters Venezuela and Ecuador have attracted attention, because of the highly political nature of the lending and the poor macroeconomic management of both countries. In 2014, CDB had US\$267 billion of foreign currency denominated loans (more than the total loan portfolio of the World Bank). 12.7% of CDB's total lending was outside China, and in addition, CDB provides lines of credit to support some of China's largest exporters.

3. CDB has sought to creatively expand lending options, most often through increasing loan syndication efforts with other banks. CDB's most significant—perhaps notorious—financing innovation was the support it gave to local government financing vehicles (LGFV) well before the Global Financial Crisis. Starting in 1998, the CDB worked with the municipal government of Wuhu in Anhui Province to develop a new model of urban infrastructure finance (see also Chapter 18). The CDB led a group of lenders to provide credit to a newly established Wuhu City Construction Investment Company, while the city government gave the new company land rights and control over several ongoing investments. The investment company then expanded borrowing by promising lenders return from future land sales, backstopped by local government guarantees. Although some aspects of this model are of questionable legality, it proved immensely popular, and by 2005, similar agreements had been signed by CDB with over 90% of China's provinces, cities and counties. When the Global Financial Crisis arrived in late 2008, this framework was already in place and was rapidly expanded into a massive stimulus program (Chapter 20).

CDB's aggressive and entrepreneurial spirit has often caused it to push the boundaries of acceptability. For over a decade (1998-2012), under the leadership of Chen Yuan (son of Chen Yun, the first generation leader and economic policy specialist), the CDB pushed to be accepted as *both* a commercial bank and a development finance institution. It came close to achieving this goal, only to have it be definitively rejected after Chen's departure.

### **19.4.3 Equitized Large State Banks**

The "equitized" large state banks are the original "Big Four" state-run commercial banks, with the addition of the Bank of Communications. As Table 19.3 shows, they have continued their steady decline as a share of the total banking sector, dropping from 58% of assets in 2003 to 41% in 2014. Despite the decline in share, these banks have continued to grow in absolute terms, and they are in fact the four largest and most profitable banks

in the world (Forbes 2015). These are huge organizations, each with hundreds of thousands of employees and tens of thousands of local branches and outlets. With branches nation-wide, they dominate as deposit-taking institutions. Each has a distinct personality deriving from the sub-division of the command economy bureaucracy from which it evolved. The largest is the Industrial and Commercial Bank of China (ICBC), which took over lending and deposit taking in the cities. The Agricultural Bank of China (ABC) did the same in the countryside; it has the largest staff and 44,000 branch offices. The Construction Bank (CCB) focused on project financing and took over many of the relatively skilled personnel who had been involved in investment planning in the old system. The Bank of China (BOC), which had actually maintained some overseas branches throughout the planned-economy period, handled foreign-trade and foreign-exchange transactions. It has a smaller, more qualified staff and fewer branches than the others. The four have quickly displayed separate personalities: the CCB and BOC possess higher levels of expertise and have restructured most rapidly. The ABC faces the most challenging economic environment, operating as it does in the lower-income rural sector.

The Big Four as they exist today are the result of a major program of restructuring (discussed below) that converted each into a joint stock corporation, listed on stock markets in Shanghai and Hong Kong. In each case, the government maintains a controlling interest, but ownership is diversified both through “free float” (stocks sold to the public) and stakes taken by strategic investors, mostly foreign banks (limited to 20%).

#### **19.4.4 Joint Stock Commercial Banks**

The joint-stock commercial banks (JSCBs) present a sharp contrast to the Big Four. There are 12 JSCBs, which were set up after 1986 (the Bank of Communications “graduated” from JSCB status to become the fifth “Equitized State Bank.”) Each JSCB is a new entrant and thus is relatively unburdened by baggage from the planned economy era. The JSCBs have younger, more highly trained staffs and considerably lower amounts of bad loans on their books. The JSCBs introduced a welcome element of competition in the banking system, and they have steadily gained market share, reaching 18% of total banking-system assets in 2014. However, the JSCBs are not free from entanglement with the government. Each JSCB is special, in the sense that each one has a unique history and a unique set of relationships with government officials and interest groups, on either the national or local level. While the JSCBs are not owned by the national government, they are typically owned by diverse groups of SOEs, government agencies, and non-state-owned enterprises. Typically, local governments retain substantial influence. The joint stock banks are generally listed on the stock exchange, so a minority of shares is held by the public. Nearly all the JSCBs have foreign banks that have taken a strategic stake in the firm (limited to 19.9% of total equity).

The JSCBs have been able to pioneer new business approaches. While the equitized large banks are more or less forced to be generalists, serving all types of customers, the JSCBs have been able to carve out specialized business models. For example, JSCBs have taken the lead in developing attractive credit card programs, helped by their alliances with foreign banks. Some JSCBs have targeted affluent customers in large cities; and some have developed models where they raise funds through the interbank market and invest them in higher-yielding investments.

#### **19.4.5 City Commercial Banks**

The 133 city commercial banks were generally formed by consolidating a number of urban credit cooperatives that had originally been set up to provide services to small-scale urban firms. Some, however, were set up directly by city governments. Most city commercial banks operate in a single region, and most are either controlled by the local government or at least strongly influenced by local government. Perhaps for this reason, city banks have grown steadily, increasing from just under 6% in 2003 to 10.5% in 2014. Compared to JSCBs, the city banks are smaller in scale and generally have weaker management and lower asset quality.

#### **19.4.6 Rural Commercial Banks and Rural Credit Cooperatives**

As described in Chapter 10, China developed a national network of rural credit cooperatives (RCCs) early in the

command economy period. The RCCs were only loosely integrated into the state financial system—they were never part of the “monobank”—and they played a highly positive role in bringing trade finance to the countryside and allowing farmers to purchase modern inputs crucial to higher agricultural productivity. Moreover, the RCCs thrived during the early phase of rural reform, channeling local savings into TVE development at a time when TVEs were highly profitable. After a flourishing 1980s, the RCC network began to be plagued with bad debt and managerial problems in the 1990s. RCCs were often called on to play a policy role in the comparatively low income agricultural sector, and it is intrinsically expensive to run a vast and far-flung network of small-scale credit organizations, so these problems were hardly surprising. After 2003, policy-makers began to grapple with the serious issues confronting the RCCs, by pumping money into the sector and encouraging RCCs to merge at the county level, and become cooperative banks or commercial banks. This program succeeded in moving RCCs out of the crisis zone: by 2014 the rural banking sector had increased its share of banking sector assets to 12.8% (from 9.7% in 2003), slightly more than half of which were held by the new rural commercial banks. RCCs were still important, accounting for slightly more than half of the personnel in the sector, and almost half of assets.

#### **19.4.7 Other Banking Sector Institutions**

The five bank types described above account for over 90% of assets. Yet there are many additional types of financial institution, each of which tells part of the story of gradual liberalization of the Chinese financial system. The largest single institution, the postal savings bank, was set up in emulation of Japan’s (troubled) postal banking system, and is now the focus of a sustained effort to convert local postal savings operations into independent and transparent business units. Non-bank financial institutions include leasing and automobile credit companies, trust companies and credit guarantee companies, all of which play an important role in niche areas of the financial system.

What about private banking? The failure of foreign banks to make a serious dent in the Chinese market is obvious in Table 9.3: foreign-funded banks peaked at 2.4% of banking assets in 2007, and have since slid to 1.6% in 2014. This poor performance is directly attributable to the regulatory apparatus the Chinese government set up to hobble foreign banks: very high capital requirements and limitations on fund-raising ability in RMB (especially important given weak branch networks). Chinese regulators have taken steps to allow private banks: in 2014, after a rigorous selection process, five private banks were approved (numbers not included in Table 9.3). This is significant, but we should also note that an identical announcement was made in 2005, without follow-through. Of course, private banking activity is rife in the Chinese economy, but it does not usually have a firm legal basis. Many of the smaller rural commercial banks are effectively private businesses, and even some of the urban commercial banks may fit in that category. Moreover, there is a vast informal lending sector in China. “Underground banks” play an important role in providing quick, short-term and expensive credit to businesses and households in need. Overall, though, China has made remarkably little progress in introducing a healthy private element into the banking economy.

#### **19.4.8 Banking Sector: Conclusion**

Overall, the banking sector has gone through a remarkable process of diversification. There are now banks that can meet almost any kind of need, and there has been a sustained push over the past few years to make the system more responsive to small and micro-enterprises. The system is vastly more professional than it was twenty years ago, and also, as Section 19.7 shows, much more fundamentally sound. China has created a modern financial system basically from scratch.

At the same time, the links between that financial system and the government are still extremely close, perhaps even closer than they were a decade ago. On one hand, the original “Big Four” have declined from over 90% of banking assets to under 40% (once the Bank of Communications is removed). On the other hand, some of the most rapidly growing types of banks still have close connections to the government. For example, if we considered the Policy Banks, Equitized Large State Banks and Postal Saving Bank as linked to the central

government, these account for 54.5% of banking sector assets, while the City Commercial Banks, with their close ties to local governments, account for another 10.5%, so together these are 65% of assets. Meanwhile, the JSCBs and Rural Banks in their own very different ways maintain substantial shares of public ownership and government linkage. China has managed to diversify its banking system while maintaining pervasive government influence, if not outright control.

## 19.5 Capital Markets: Equity

Equity markets are an important and highly visible part of a modern financial system. In the Anglo-American model of capitalism, equity markets are often taken as the main actual, and key symbolic, means of financing corporations. Stock markets are crucial in the US because they (a) provide an important channel for corporate finance; (b) serve as a market for corporate control, giving outsiders the ability to buy an existing company if they believe its value can be substantially increased by a different management; and (c) provides a sensitive evaluation of managerial performance that can be linked to manager's compensation.

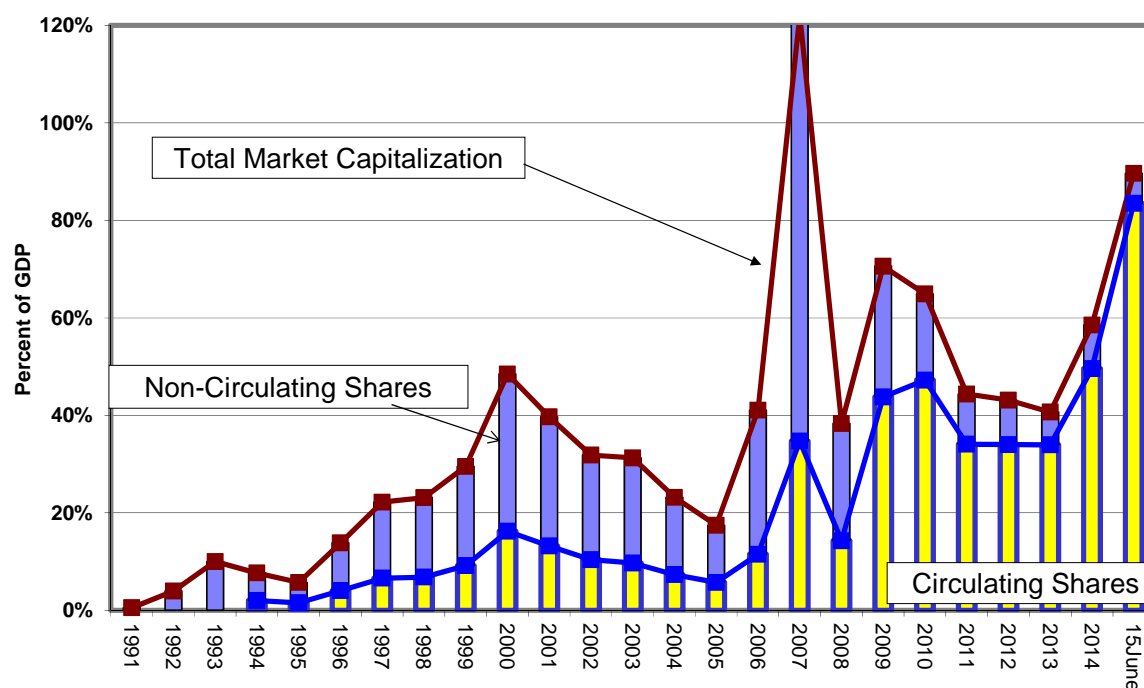
China's experience with stock markets has been uneven. China's stock markets were initiated with the help of local government policy entrepreneurship, when the municipalities of Shanghai and Shenzhen in the late 1980s invested resources in building stock market institutions hoping to get central government approval later. In 1991 the central government gave its blessing, as the development of the Shanghai Stock Exchange was folded into with the accelerated development of Shanghai's Pudong Special Zone in an effort to restore Shanghai's position as an Asian financial center. It was really in the late 1990s that Chinese stock markets were given the go-ahead by the central political leadership. By the end of 2014, Shanghai was the fifth largest, and Shenzhen the ninth largest, exchanges in the world by market capitalization. Moreover, China established a technically efficient system of market operation, such that tens of millions of individuals could trade stocks securely, with a system of central custodial accounts, and one that rarely crashes. Disclosure of information is far better for listed firms than for non-listed firms. After 2012, markets for small-scale and start-up firms were opened, filling a huge hole in the stock market system. Overall, then, China has developed large and diverse equity markets from the ground up.

Nevertheless, certain important problems have never been solved. As part of the conversion of traditional SOEs to joint-stock and limited-liability corporations (Chapter 13), stock markets provided an opportunity for "partially privatization," in which an SOE was listed on the exchange and a minority stake sold to the public. This introduced new shareholders into the firm, provided a channel for better information disclosure, and could potentially lead to further privatization. Privatization through several successive tranches of stock sales had been successfully adopted in several Western European countries. Moreover, stock market listing promised to create a new source of funding for SOEs, who typically received the revenues from the initial public offerings (IPOs). Parent companies could maintain control through their majority stakes, while making money from the sale of a minority share. This seemed like a pure win-win proposition.

Once this go-ahead was given, China's stock markets grew rapidly. However, the combination of government control and sale of minority stakes turned out to be the "original sin" that has hobbled the healthy development of the stock market ever since. The majority of large capitalization firms on the Shanghai Stock Exchange have been consistently controlled by their state-owned parents. The Chinese stock exchange has never become a market for corporate control. Moreover, the market has remained extremely dependent on government policy decisions, with high correlations between individual stocks, and large fluctuations as expectations of policy change fluctuated between optimism and pessimism. Figure 19.2 shows the growth of the Chinese stock market (Shanghai and Shenzhen combined), scaled to GDP. However, Figure 19.2 also shows the pattern of boom and bust that has bedeviled the Chinese market. Stocks soared in 1993, 2000, 2007 and 2015, only to collapse each time. While emerging market stock markets generally display high volatility, the Chinese pattern is extreme even within the emerging market context. It is straightforward to link this rather poor performance to

a number of characteristics of the market. What may be less immediately apparent is that these characteristics are themselves related to the separation between ownership and control, and the policy limits the Chinese government has placed on the equity process in order to maintain control of the largest firms.

**Figure 19.2 Stock Market Capitalization as Share of GDP**



## 19.5.1 Characteristics of the Market

### 19.5.1.1 Circulating and Noncirculating Shares

In almost all cases, when an SOE was listed on the market, the government and the parent of the enterprise retained a majority of the equity in the firm. Worries about control and the dangers of profiteering from insider privatization led the government to declare that shares retained by the government and other sponsors were simply not allowed to circulate. As Figure 19.2 shows, through 2007, the majority of shares were in a legal category that did not permit them to circulate. In 2007, a program was adopted that allowed companies to convert their non-circulating shares to circulating status, if the external shareholders agreed. In fact, optimism about this program was one of the drivers of the equity boom in 2007. In fact, as Figure 19.2 shows, the proportion of shares classified as non-circulating dropped sharply and then continued to decline to less than 10% of the total by mid-2015. Unfortunately, while the number of shares *legally classified* as non-circulating declined, most of these shares did not in fact begin to circulate: that is, most government and SOE shareholders held on to their shares so that they could retain control of their firms. The November 2013 Third Plenum economic reform program called for movement to “mixed ownership” for SOEs, leading to hopes that a larger volume of shares that had not actually circulated would in fact be sold onto the market. However, moves in that direction were reversed in the wake of the mid-2015 market collapse, as SOEs were instructed to hold on to their current shares, and even buy up shares on the market to support the price. In fact, the proportion of non-circulating shares increased after June.

### 19.5.1.2 Low Contestability



Given the fact that majority control of most listed companies has remained firmly in government hands, private shareholders have no possibility of gaining control over a company. In such a situation, the market can only rarely serve to discipline the management of existing firms, and the stock market's role in improving corporate governance is limited. The Chinese stock exchanges have not served until now as a market for corporate control.

#### **19.5.1.3 Thin Markets**

The market is "thin," meaning that the supply of desirable shares is quite limited, and as a result, when there is a reasonable degree of optimism, prices have tended to be very high. At each of the market's peaks (in 2000, 2007 and 2015) Chinese shares became extremely expensive, with a price/earnings ratio above 40. (In comparison, the U.S. S&P 500 price/earnings ratio has historically been between 15 and 25.) Of course, rapidly growing companies should have higher price/earnings ratios to account for higher expected future earnings, but Chinese A-share valuations have been very "rich" even after this is taken into account. The stock markets are also characterized by rapid turnover and relatively high volatility. Annual turnover in 2014 was 2.35 times the year-end value of circulating shares, much higher than in a developed country market.

#### **19.5.1.4 Rationing of Listing Opportunities**

Because listing is so lucrative for an SOE, the demand for permission to list is large. Regulators have formally or informally rationed the right to list on the exchange virtually since the beginning. It is not enough that a firm meet the requirements for listing; it must also compete for the favor of regulators in gaining permission to list. This necessity produces a further distortion of the market's ability to value companies accurately. New IPOs were suspended for years after the 2011 market decline.

#### **19.5.1.5 Policy-Driven Market**

Given the limitations on individual company information and shareholder control, the Chinese stock market inevitably is driven primarily by changes in government policy. Studies have shown that market fluctuations are better explained as reactions to government policy changes, particularly those that affect liquidity on the markets, rather than as reaction to changes in underlying fundamentals of individual companies. Since access to the market is rationed by the regulator, the market often seems to be allergic to policy changes that will increase the supply of state shares (since increased supply will drive down share prices), while welcoming measures that will shift capital to existing firms (driving up prices). These can create great volatility based on policy. In essence, investors in the market are forced to gamble that the Chinese government will favor the further development of the stock market and hope that parent companies will choose to foster the share value of the their subsidiaries.

#### **19.5.1.6 Weak Disclosure; Multiple Related-Party Transactions; and Insider Control and Manipulation.**

Chinese disclosure and regulation standards were initially extremely poor, and for years there has been a sustained effort to improve disclosure. Corporate reports must now be posted on the Internet in a timely fashion; accounting standards have improved; and a competitive business press improves transparency. Despite these improvements, disclosure standards and reliable information still lag far behind the standards of developed-economy markets. In particular, since the regulatory system was crafted with an eye to protecting the rights of the government as owner of companies, protections for minority shareholders are weak.

These realities are especially problematic because of the form in which most state-owned firms are listed on the market. Typically, a state firm consolidated some or all of its income-earning assets into a subsidiary that was to be listed. The parent firm retained most of the shares, and also retained direct management of the nonproductive or loss-making assets. In some cases the parent companies transformed themselves into empty shell companies, with no productive assets at all, living off the dividend payments made by the subsidiary. In

other cases, productive assets were divided among parent and subsidiary. An example of the latter case is CNPC, the China National Petroleum Company, the parent of Petrochina, which is China's biggest oil producer. Petrochina is an H-share-listed company, but only 10% of its shares circulate. CNPC retains some of the oil fields (though not Daqing, the largest), most of the social-service organizations, and all of the oil-field-service operations. Thus CNPC sells goods and services to Petrochina, while it is also completely dependent on the profit that it derives from its 90% stake in Petrochina. At the same time, CNPC is entangled with the government regulators who, among other things, impose pricing regulations on Petrochina's extensive retail operations. Given the multiple related-party transactions between CNPC and Petrochina, a (minority) holder of Petrochina shares really has no way of knowing what he will get for his holding or of assuring that his rights are protected in transactions overseen by the dominant shareholder.

### **19.5.2 Market Participants**

Some of the characteristics of the Chinese market—volatility, high turnover, policy-driven moves—are plausibly related to the composition of market actors. Institutional investors, such as mutual funds, pension funds, and insurance companies, benefit from a healthy market, but they also contribute to the healthy development of the market. Institutional investors are often large shareholders with an interest in monitoring enterprise performance and serving as “patient” owners with a long-term interest in improving corporate governance and performance. The share of institutional investors is quite low. According to CSRC statistics, at the end of 2014, 25% of A-shares were held by individuals; 61% were held by “general institutions”; and 14% were held by “professional institutions.” The category of professional institutions includes virtually all those institutional investors that would stabilize the market: mutual funds of various kinds (5.9%); insurance companies (3.9%); qualified foreign investors [QFII] (1.7%); trusts and enterprise funds (1.5%); and the Social Security Fund (1.2%). (CSRC 2014: 21-22). These figures are all much lower than in a developed country market.

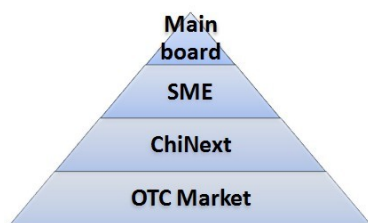
The 61% of shares held by “general institutions” is something of a black box, but it contains two large categories. First, the parent companies of listed firms still have a large presence; although their shares can now circulate, that doesn't necessarily mean that they actually do. Second, there are a large number of “private investment funds” and investments managed by Securities Firms. Securities Firms are the partially hidden agents behind much of what happens on the Chinese stock market. They have very substantial assets under their control, according to different estimates, something like 15-20% of total A-share market capitalization. These function more like hedge funds than mutual funds.

These relationships were further muddled in the aftermath of the July-August 2015 stock market crash. Many government-linked entities were ordered to buy and hold shares in order to stabilize the market. This obviously will cause an increase in both the volume of non-circulating shares and of shares held by “general institutions.”

### **19.5.3 Market Openness and Integration**

In recent years, a major push has developed to expand and integrate China's stock markets. In May 2014, the State Council (2014) issued a document on capital market liberalization to underpin this effort, which unfortunately ran into substantial obstacles from August 2015, as the government intervened in an attempt to prop up the stock market. Three crucial points from this effort, insofar as it relates to the stock market.

First, China will create a multi-level equity market. That is, in addition to the “Main Boards” in Shanghai and Shenzhen, China will create exchanges and over-the-counter trading opportunities for small companies. This can be envisioned as a pyramid-like structure (in terms of the *number* of companies, *not* the value of market capitalization). The main boards list 2,797 companies (end June 2015); the SME [Small and Medium Enterprise] tens of thousands. The ChiNext Market was set up in October 2009 at the Shenzhen Stock



Exchange to list companies in high-growth sectors, such as electronics and pharmaceuticals. Finally, an Over the Counter (OTC) market that is similar to the OTC Bulletin Board in the US is being established in 2015 to enable share transfers of companies that do not meet the listing requirements of other boards. These exchanges will greatly relax capital and profitability requirements for listing. In return, ChiNext has stricter rules on information disclosure, etc. As is appropriate for high growth firms, ChiNext trades at a much higher price/earnings ratio than do the main boards.

Second, any company that met certain objective standards of capital, profitability and information disclosure would be eligible to list on the Main Boards. That is, the requirement of preliminary approval by the CSRC (the “rationing” of listing slots) would end. At the beginning of 2014, the moratorium on IPOs was lifted, and new firms began to list on the new criteria. Unfortunately, listing was suspended in August 2015 after the market meltdown. If the process is resumed, the combination of liberalization of smaller-scale markets and listing requirements for the Main Boards would revolutionize Chinese stock markets.

Third, China’s stock markets are to be internationalized. Permission was granted at the end of 2002 for qualified foreign investment institutions (QFII) to invest in the market. These are mutual funds operated by foreign banks or brokerages. Each fund has a specific quota of foreign- currency investments it can accept; the fund is then allowed to invest in RMB-denominated A-shares up to the limits of its quota. This system—pioneered in Taiwan and Korea—enables foreign investment in the domestic stock market while still retaining control over capital inflows and outflows. As of June 2015, total quotas of US\$75.5 billion had been approved. In November 2014, the Shanghai-Hong Kong Stock Connect began to operate, a program that allows investors in China and Hong Kong to purchase shares directly in the other jurisdiction, through their home brokers. Hong Kong investors are not required to have Hong Kong residence, so this effectively opens up China’s stock market (although there is a cap on daily transactions). The program will be expanded to the Shenzhen market in 2015. The QFII and Stock Connect programs bring China’s stock markets to the threshold of internationalization. However, actual international ownership of shares is still low, less than 2%, whereas full internationalization would probably imply that something from 20-45% of China’s shares would be owned internationally.

#### **19.5.4 Comparative Evaluation of China’s Stock Market**

In relation to its GDP, the market capitalization of China’s listed companies is somewhat below average. In 2012, China’s total market cap was 43.1% of GDP, compared to an average of 49.5% for all upper middle income countries and 83.7% for developed countries (WDI). In Asia, some comparable countries are India (69%), Indonesia (43%), Japan (62%), Korea (97%), and Thailand (105%). Yet this comparison is slightly misleading, because it treats the large volume of (practically, if not legally) non-circulating shares as having the same value as circulating shares. Despite its overall large volume and global impact, the Chinese stock market is still a laggard in the Chinese developmental context.

### **19.6 Capital Markets: Bonds**

China has developed a substantial bond market: as Figure 19.3 shows, from virtually nothing at the end of the 1990s, the total number of bonds outstanding reached 25 trillion RMB by the end of 2014.<sup>2</sup> Moreover, China has set up a centralized registry, minimum standards for disclosure which are freely available on the Web, and several domestic bond-rating agencies. Despite these substantial achievements, the development of China’s bond markets lags severely behind the stock market and bank-based intermediation services.

<sup>2</sup> According to the Chinabond registry; some special cases may fall outside this registry.

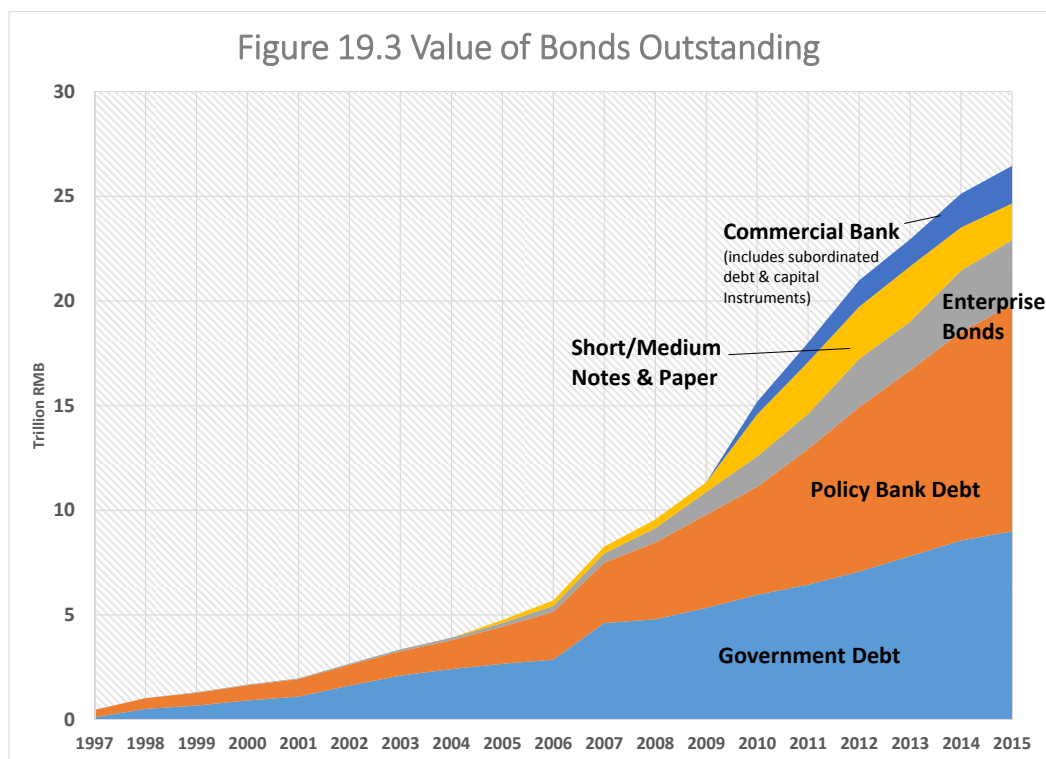
### 19.6.1 Overall Scale

In the first place, relative to China's enormous economy, 25 trillion in bonds is not that much, amounting to just under a shade under 40% of GDP since 2012. By contrast, bond market capitalization in developed market economies is much larger than GDP. In the US, the bond market is worth about \$40 trillion, or 2.2 times US GDP.

### 19.6.2 Composition of Bonds

An even more important difference is that large majority of the Chinese bonds are issued by government actors. As of the end of 2014, 34% of bonds were government issued and 40% were issued by government policy banks. This means that three quarters of China's bond proceeds go to the small number of issuers closely linked to the central government (local government, or municipal bonds, were very small through 2014, although this will change dramatically in 2015). Thus, the bond market serves primarily as a channel of funds to a few government borrowers.

Conversely, corporate bonds are modest. Only 12% of the total bond float (4.4% of GDP) is for corporate or enterprise bonds. By contrast, in the US corporate bonds are over 50% of GDP, and various kinds of mortgage and asset-backed securities are even larger. Moreover, issuance of corporate bonds must be approved by national regulatory bodies, in particular, the National Development and Reform Commission (NDRC), the former planning agency. This has meant that the overwhelming majority of issue have been from state-owned enterprises.



### 19.6.3 Transaction of Bonds

Finally, the different types of bonds are transacted in very different forms. Government and policy bank debt is allocated to commercial banks, who are required to accept it. As a result, 80% of policy bank debt and 70% of government debt is held by commercial banks. Commercial banks typically hold this debt to maturity. This debt plays a positive role in the financial system, since the debt serves as collateral for inter-bank transactions. On the inter-bank market, the dominant form of transaction is a "repo" (reverse purchase agreement), in which banks "borrow" a security from another bank in return for cash and a promise to return it (thus providing short-

term funds with the long-term bond as collateral). This has allowed a fairly efficient inter-bank market to develop, and allows banks to develop different business strategies predicated on their access to this market. However, it does little to diversify funding sources for non-financial corporations.

A much smaller market is the bond trading on the Shanghai and Shenzhen exchanges. The large majority of corporate bonds trade on the exchanges; bond funds and insurance companies play a larger role; and turnover is higher. This market is very different from the bank-dominated market for most government and policy-bank securities, and interest rates can diverge substantially. This market does begin to provide corporations with funding options, but its overall size is still extremely limited.

## **19.7 Stability of the Financial System**

### **19.7.1 The Legacy of Non-performing Loans from the Early Transition**

The Chinese banking system entered the twenty-first century heavily burdened by non-performing loans. This was in part the result of the politicization of the economy and lending for many unproductive projects that were funded for patronage or showcase purposes, or from simple lack of economic analysis. The non-performing loans were also the result of the function the banks played during the transitional period. During the period of “reform without losers” (1978–1993), the banking system played the key role in protecting inefficient firms from the consequences of increased competition. Soft budget constraints implied continuous bank lending to unviable clients, keeping many “zombie firms” alive. A large buildup of nonperforming loans (NPLs) inevitably occurred, and by the mid-1990s, the banking system was in desperate shape (Lardy 1998, 92–127). Finally, at the end of the 1990s policy-makers shifted gears and recognized that the fragility of the banking system was a huge potential problem. Undoubtedly their recognition of the dangers was brought home by the magnitude of the Asian financial crisis in 1997–1998, which plunged previously well-performing economies such as Korea, Thailand, and Indonesia into enormous difficulties, with huge real costs. Chinese policy-makers began to recognize that rather than looting the banking system, they needed to inject substantial resources into that system in order to avert a potential economic crisis.

### **19.7.2 Bailout and Restructuring.**

In a remarkable sustained effort, between 1998 and 2006, China pumped money into its banking system, restructured it, and returned it to basic financial health. Essentially, a four-step process was followed:

1. “Hardening” of the banks’ budget constraints. As described in Chapters 4 and 13, this was an intensely political process, as the government signaled strongly that it was willing to bear the costs of a major shrinkage of the state sector. As part of that process, control over the banking system was centralized and incentives altered so that lending officers were penalized for creating new bad loans. The primary objective was to plug the flow of resources to inefficient enterprises, but the only way to achieve that was to simultaneously stem the flow of resources to banks.
2. Massive NPL bailout. The government injected billions of RMB into the banking system to relieve it of the burden of “legacy” NPLs. In 1998, the government issues 270 billion RMB in special bonds and injected the capital into the commercial banks. Then, in 1999, four state-run assets-management companies (AMC) were established, one for each of the Big Four commercial banks. The AMCs purchased nonperforming loans at face value from the Big Four commercial banks, for a total of 1.4 trillion RMB. The banks were relieved of about half their overall NPL burden.
3. Bank restructuring. The banks first had to begin an internal restructuring process. They had to commit a

substantial proportion of their own financial resources (profits and loss provisioning) to write-off recently generated NPLs. Then, they had to significantly improve internal management, auditing and controls. Finally, they had to slim down and become more efficient. The Construction Bank, the front-runner in this process, sold off bad loans for 50% of face value and wrote off billions in bad loans; laid off a quarter of its staff, closed one-third of its branches, and invested heavily in information technology and a more tightly managed organizational structure. By the end of 2004, the CCB and BOC were judged to have done enough that they qualified for recapitalization.

4. Recapitalization and stock market listing. At the end of 2004, CCB and BOC received US\$45 billion for recapitalization from China's foreign exchange reserves (thus, ultimately, from the Central Bank; a separate entity called the Huijin Corporation was established as a bank holding company). The cash infusion was used as equity capital. The CCB and BOC, were restructured into joint-stock corporations wholly owned by the Huijin Corporation. CCB took the next steps, first selling stakes to strategic international investors, then listing a portion of its shares on the Hong Kong stock exchange. Specifically, CCB sold 8.7% of its shares to the Bank of America and 6% to Temasek, an investment company that is an arm of the Singapore government, and then it sold another 12% of its shares in an initial public offering. The successful offering valued CCB at an enormous US\$67 billion. Although the CCB remained more than 70% owned by the central government, it received a major infusion of money and skills, and its performance since has been tracked by its share price. The other state-owned banks followed CCB's lead: BOC in 2006; ICBC in 2006; and the Agriculture Bank in 2010.

### **19.7.3 Assessment**

Overall, the restructuring of China's banking system was an enormous achievement. Removing a large part of this enormous NPL burden from the banks averted a liquidity crisis and prepared the ground for more fundamental banking reform. The banks that emerged from the process were far stronger financial and in terms of management capabilities than they had been before the process. Each of the "Big Four" also partnered with foreign banks who contributed significantly to their capabilities.

The process was extremely expensive: the total amount of written off NPLs amounted to about 3.5 trillion RMB, almost exactly one-third of GDP, a huge price to pay. At the same time, it required some accounting "tricks" to get rid of the NPLs. The AMCs claimed to have recovered 24% of the value of the NPLs they bought (20.8% cash recovery) through the first quarter of 2006. They had originally funded the purchase of NPLs with bonds guaranteed by the central government and sold to...the commercial banks. Moreover, the AMCs themselves survived and broadened their business scopes, but also maintained some obligations on their balance sheets. Later, the commercial banks purchases 48-49% stakes in "their" AMCs, so the NPLs arguably returned to the commercial banks' balance sheets both as AMC bonds and indirectly through the banks' stakes in the AMCs. Some of the NPLs didn't disappear after all.

**Table 19.4 Non-Performing Loans in China's Banking System**

	Large State-Owned Banks*			All Commercial Banks			All Banking Institutions	
	Billion Yuan	% of Loans	% of GDP	Billion Yuan	% of Loans	% of GDP	Billion Yuan	% of GDP
2002	2,088	26.2%	17.3%					
2003	1,917	20.4%	14.0%					
2004	1,575	15.6%	9.8%					
2005	1,072	10.5%	5.8%					
2006	1,053	9.2%	4.8%					
2007	1,115	8.1%	4.2%	1,270	6.1%	4.7%		
2008	421	2.8%	1.3%	564	2.4%	1.8%		
2009	363	1.8%	1.0%	507	1.6%	1.5%		
2010	313	1.3%	0.8%	434	1.1%	1.1%	1,244	3.0%
2011	300	1.1%	0.6%	428	1.0%	0.9%	1,053	2.2%
2012	310	1.0%	0.6%	493	1.0%	0.9%	1,075	2.0%
2013	350	1.0%	0.6%	592	1.0%	1.0%	1,176	2.0%
2014	476	1.2%	0.7%	843	1.2%	1.3%	1,433	2.3%

Source: China Bank Regulatory Commission. [Www.cbrc.gov.cn](http://www.cbrc.gov.cn)

\*Includes Bank of Communication after 2010.

However, a certain amount of accounting sleight of hand occurs in any bailout procedure. The key feature is that a bailout must solve problems from two somewhat contradictory standpoints: the “stock” problem and the “flow” problem. The existing stock of bad loans already on the bank’s balance sheets primarily reflects the legacy of past costs. It should be written off, and the costs acknowledged, as quickly as is politically and technically feasible. The flow problem refers to the need to prevent new lending decisions from replicating past conditions and creating new non-performing loans: it primarily reflects the need for the banking system to adopt commercially sound practices going forward. The two problems are in tension because of the time consistency problem: if you are willing to bail out the banks now, then how can you credibly commit to *not* doing so in the future? And if you are going to bail out the banks in the future, what is to prevent them from replicating past behavior (the soft budget constraint) and creating new bad loans today?

This round of bank restructuring could be relatively successful (despite some sleight of hand) because major economic reforms help answer the credible commitment problem. NPLs purchased by the AMCS were all made before 1996, before the really serious round of SOE reforms started. Thus, there was an attempt to erect a kind of “firewall” between the “old bad” lending decisions made before the downsizing of the SOE sector and the “newer better” lending, coming after market reforms. Reinforcing this “never again” approach was the fact that the banks that emerged from the restructuring were very different creatures, with better accounting and incentives, and more transparency. It was thus at least possible to believe that the bailout was a one-time event, incurred in the course of economic reform.

#### 19.7.4 Financial Repression

After the bailout, the policy stance toward the banking system changed dramatically. Whereas in the past the banks had been used to support the SOE sector—even at the cost of weakening the banks—policy-makers now saw the need to keep the banking system financially healthy. Traditionally, Chinese banks had very small “spreads” between interest rates on loans and those on deposit rates, so it was hard for banks to make money by taking deposits and making loans. Throughout the 1990s those spreads were low, and sometimes even negative, during episodes of high inflation when the government stepped in to supplement interest payments to depositors. Then in June 1999, spreads were pushed up about 3 percentage points, and remained there until December 2014. Whether or not this was the cause, the outcome was that after late 2003, there was a major shift toward a system of “financial repression.” In a financially repressed system, savers receive very low returns, generally negative after accounting for inflation. Banks and their clients—especially state-owned enterprises in the Chinese case—benefit from access to these cheap funds, and governments steer credit toward favored borrowers. As Figure 19.4 shows, this was definitely the case in China after 2003. Nominal interest

rates were generally low and were rarely changed (staying in the 2-4 percent range after 1999). As a result, changes in the real interest rates (the nominal interest rate minus the change in the consumer price index) were driven by changes in the inflation rate. Between the end of 2003 and the end of 2013, the average real interest rate was negative 0.34%, so that a deposit of 100 RMB in 2003, after adding interest payments, had only 96.65 RMB of purchasing power ten years later.

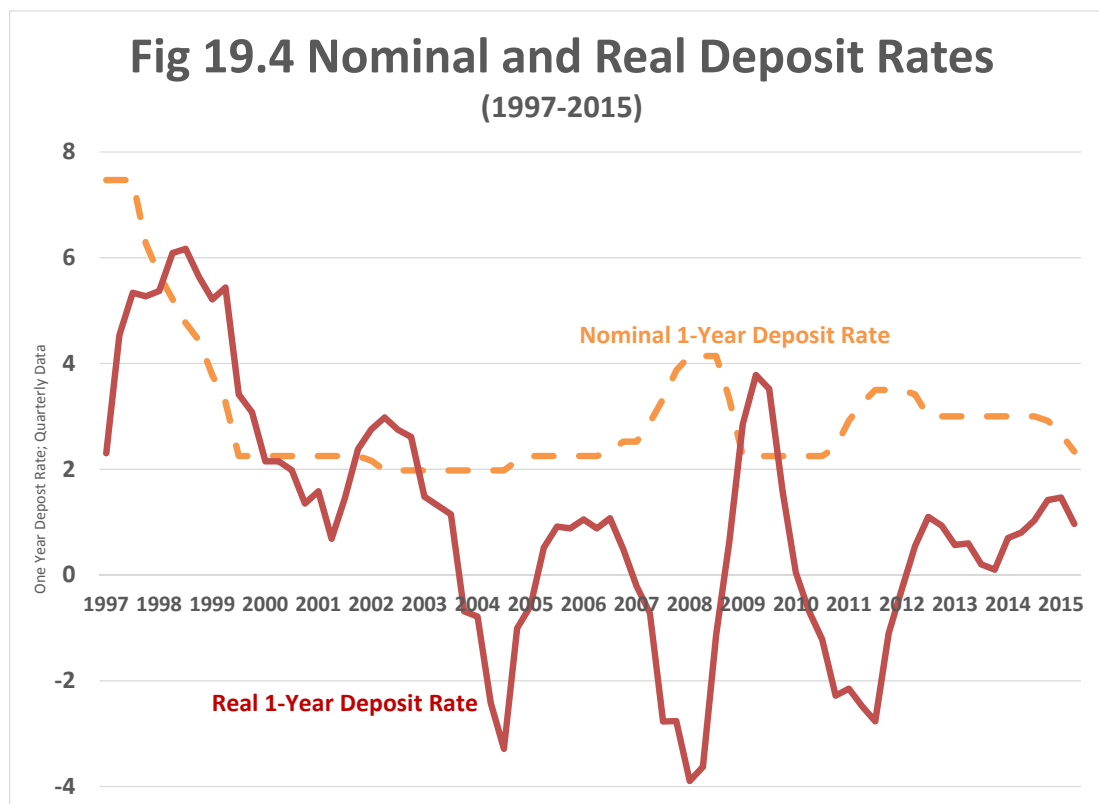


Figure 19.4 shows three periods of deflation (negative inflation), where the real return is above the nominal return. During the first two periods of deflation, the stickiness of nominal rates meant that real interest rates were high (significantly positive). After 2003, however, as the inflation rate returned to positive territory and gradually accelerated, real returns fell. With inflation rising, the stickiness of nominal rates pushed down real rates. This is a common story, in fact, the most ordinary way that countries fall into financial repression. But it is worth noting that China's inflation rate was not particularly high—the maximum year-on-year rate in any month was 8.7% in February 2008. A fairly modest adjustment of nominal interest rates would have been sufficient to keep real rates in positive territory, but the increases in nominal rates were too little too late. It is easy to guess the reasons: raising deposit rates without raising lending rates would squeeze the banks; raising deposit and lending rates would increase the cost of capital to state firms. By their actions, state policy-makers revealed that they preferred financial repression. Some part of the banking system monopoly was “taxed” by the requirement that they buy bonds from the Policy Banks (again, at low interest rates, lowering their returns).

#### 19.7.4.1 Costs and Benefits of Financial Repression

Some argue that financial repression has benefits. As long as the low returns to savers don't suppress the total amount of saving, financial repression serves as a mechanism to pump resources into investment in ways subject to government influence. During the “miracle growth” phase, when government may have a good idea of the kind of infrastructure investment necessary to drive growth, financial repression may be an effective way to concentrate investment in large, essential projects. Japan and Korea both used a degree of financial repression during their high growth eras, and the command economy can also be viewed as a very extreme form



of financial repression.

However, financial repression has substantial long-run costs:

a. Misallocation of investment. Since lending rates are low, there is excess demand for bank credit. Bank credit must be rationed, and the criteria for the rationing is rarely clear. Low productivity projects sponsored by the government appear profitable because credit is cheap; higher productivity projects sponsored by small-scale and private actors can't get funding.

b. Households have low return to saving. As shown in Table 19.1, of household saving, net 8.2 trillion was loaned to businesses in 2012, a huge amount. However, households have been getting essentially no return for these saving. At the end of 2014, there were 50 trillion RMB in savings deposits: if interest rates on those deposits were 2 percentage points higher, deposit-holders (almost all households) would have received an additional 1 trillion RMB in income, increasing household income by 3% and thereby shifting 2 percentage points of GDP from investment to consumption. Financial repression contributes to an unbalanced economy (Chapter 6), so reducing financial repression would contribute to rebalancing.

c. Volatility in asset markets. The dominance of the banking system—with which the chapter opened—is also a characteristic of the system of financial repression. The under-development of capital markets helps ensure that household funds will continue to flow into the banking system, and continue to provide low-cost funds for government projects. Households are frustrated that they have few options to get a decent return on their saving, and seek other outlets for their saving.

It is not an accident that Chinese urban housing prices have soared during the post-2003 period when financial repression was marked. Households invest in housing, seeking higher returns and diversification. When it appears that alternate channels for saving are opening up—for example, when the stock market seems to be opening up—households quickly shift into that arena, causing short-term bubbles that draw in even more funds. To be sure, high housing prices and asset market volatility would exist even without financial repression, but financial repression makes these problems bigger and harder to manage. This is especially a problem during the reform process, as discussed in the following section.

### **19.7.5 The End of Financial Repression and the New Stability Challenge**

After 2009, the long-term features described in this chapter were rocked by two major events. The first was the Chinese government response to the 2008-9 Global Financial Crisis, and the second was a process of financial innovation that began to allow funds to escape from financial repression.

#### **19.7.5.1 Response to the Global Financial Crisis**

The initial response to the global financial crisis, in November 2008, was a primarily fiscal one, centering on a 400 billion infrastructure program. However, this response was quickly swamped by a government response that was funded primarily through the banking system. In essence, the system of funding local government investment corporations—pioneered by China Development Bank in the “Wuhu model,” described earlier, was scaled up with remarkable speed. This resulted in a huge burst of lending and the initiation of hundreds of thousands of new investment projects (the jump in money supply is evident in Figure 19.1). From a short-term macroeconomic perspective, this policy was effective in maintaining high aggregate demand and buffering against the impact of a severe external shock. However, the systemic impact on the financial industry was quite negative.

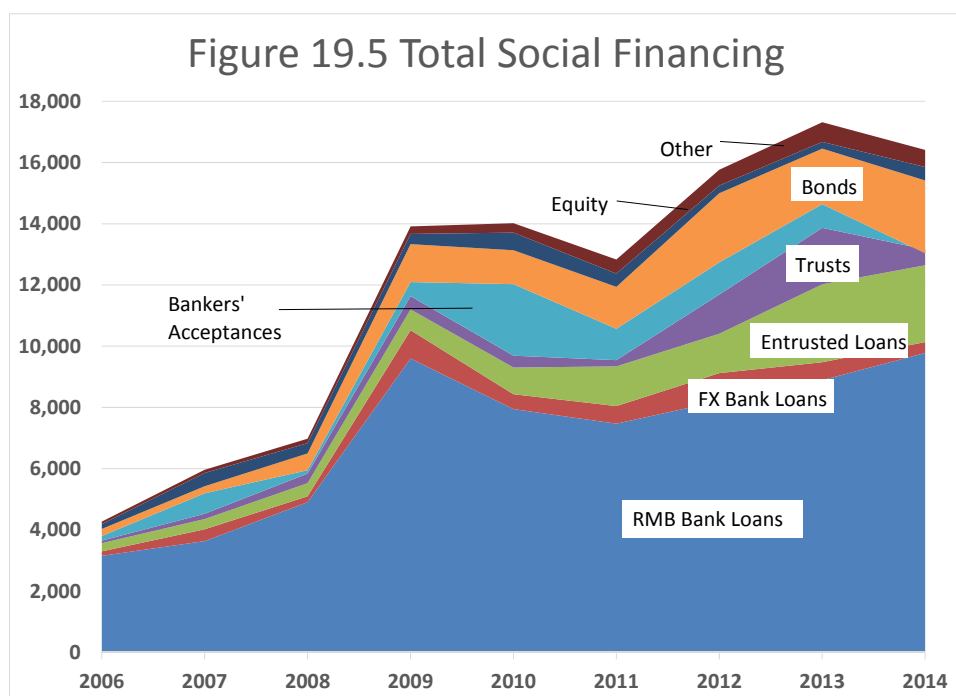
a. Bank budget constraints, only recently “hardened,” became “soft” again. In early 2009, all banks were

ordered to lend without restraint to local government investment projects. Only recently restructured and launched on a sustainable commercial orientation, with an implicit “never again” clause for bailouts, banks were suddenly again to follow government orders on lending and specific clients. Clearly, banks were not really “responsible” for the lending decisions they made in early 2009.

b. A large stock of poorly conceived and incomplete projects quickly built up at the local government level, accompanied with substantial indebtedness of LGFVs. Many projects have never been able to repay the loans they took out to begin work, so their loans must be rolled over (“evergreen”). Incomplete projects continue to demand new loans to push for completion. The result has been the build-up of a large volume of local government debt (Chapter 18), combined with the implicit build-up of a new round of non-performing loans on the bank balance sheets. Table 19.4 shows only a very modest increase in NPLs between 2012 and 2014, but this is partially because the problem has not yet been acknowledged: the situation started in 2009, and it takes time for projects to be completed, for repayment schedules to become operational, and for loans to go bad. Banks are fairly well prepared with generous loss provisions and strong core capital levels.

### 19.7.5.2 Financial Innovation and Shadow Banking

Figure 19.5 shows the evolution of total financing since 2006 (the data are related to those in Table 19.2, but the classification system is different). Starting from 2010, the year after the surge of lending for the Global Financial Crisis stimulus program, financial flows began to diversify. As regulators struggled to control bank lending, while the demand for funds remained high, new financing instruments began to proliferate. Worthy of special attention are trusts and entrusted loans, neither of which shows up as part of the banks’ traditional lending.



These funds are escaping from the repressed financial system: as savers sought higher returns and investors with high demand were willing to pay higher rates, new financing channels were opened up. Ironically, commercial banks, including the large state-owned banks, were pioneers of this process. Forced to compete for deposits, but with deposit rates capped, banks began offering “Wealth Management Products” (WMP). These WMPs were packaged products that, as of end-2013, on aggregate bundled 39% bonds and money-market instruments; 27% non-standardized debt instruments; 26% bank deposits; and 6% equity-like variable return instruments. In

this initial phase, more than half of these funds were raised by the five big equitized state banks, although the JSCBs moved aggressively to catch up in later years (CGBRSC 2013: 10, 17; 2014: 10, 18).

In essence, what has happened is that, in the absence of a well-function, diversified set of capital market institutions, other solutions were improvised. Those who applaud these developments call them “financial innovation,” while those who deplore them consider them to be unregulated “shadow banking.” It is certainly true that a ‘regulatory gap’ has arisen, due to the opaque features and lack of public understanding of many of these products. Regulators could have squelched this emerging sector, but have instead attempted to nudge it into the daylight, by limiting claims about guaranteed returns and discouraging non-standardized products. Regulators have followed a similar approach of benign tolerance toward the rapidly emerging internet banking sector. Internet merchants like Alibaba, having built sophisticated online payments systems, have aggressively sought to leverage this advantage into online banking business. Others have sought to directly link individual lenders and borrowers. So far, regulators have allowed these experiments to go forward.

### **19.7.5.3 Liberalization in the Presence of Debt Burdens**

The changes described in the previous section mean that the degree of repression in the financial system has declined somewhat after 2013. More choices are appearing for savers; spreads within the banking system have declined modestly; and overseas alternatives are beginning to be possible.

At the same time—perhaps inevitably—the loosening of financial rules has also resulted in a proliferation of new financial instruments whose properties are not well understood and which have given rise to concerns about financial stability. This murkiness, combined with the large run-up in indebtedness in the wake of the GFC, mean that financial liberalization is intertwined with the resolution of a large debt burden. The debt problem of local governments, described in Chapter 18, puts pressure on the banking system and makes the process of financial liberalization more difficult and more risky.

## **19.8 Efficiency: Toward An Integrated Financial System with Market-Determined Interest Rates**

How far is China from an efficient and integrated financial system? During 2015, great steps have been made in the direction of liberalization, including steps toward international openness and toward market-determined interest rates. However, there is still a substantial distance to travel.

In a modern diversified financial system, there exists a system of interest rates. There is typically a benchmark, short-term interest rate, over which the central bank exerts a great deal of influence. Indeed, in extreme circumstances (such as the post-GFC period in the US), the central bank (Federal Reserve) can push that benchmark rate down to zero for years at a stretch. However, beyond the benchmark rate, there is a complex system of interest rates that are constantly adjusting in response to market forces. This system of interest rate links banks and bond markets very closely, and links both to equity markets through more indirect channels. Relations between short-term and long-term rates constantly adjust (the “term structure” of interest rates in the bond market), as does the relationship between rates charged to risky companies and safe companies (the “spread”). It is under these conditions that financial intermediation works best: the diverse tastes, needs and circumstances of lenders and borrowers can be brought together, under conditions that are constantly changing.

From this standpoint, China still has a way to go:

1. The closest to a benchmark interest rate China has is the inter-bank funds market. This is large and liquid,

and the PBC intervenes directly and regularly to smooth fluctuations and manage liquidity. However, there is still a shortage of available debt instruments, and the market is segmented with limited participants.

2. Banks are still over-regulated: the dual measures of providing deposit insurance and eliminating the ceiling on deposit interest rates were just adopted, finally, in 2015. They need time to become effective.

3. The structure of interest rates in bond markets need to adapt to the presence of defaults. Riskier bonds have higher interest rates because investors expect a certain proportion of bonds to default. China, worried about the large overhang of potentially bad debt, has been unable to establish an ordinary process of default for the terrible (hopefully few) borrowers who are bankrupt. Indeed, this problem may be getting worse, as a large batch (3 trillion) of low-quality of local government debt was created in 2015 in an attempt to get a handle on the local government debt problem. At a minimum, this requires both a series of managed defaults and the emergence of a more reliable bond rating industry than exists at present.

4. Stock markets need to allow ingress both to new companies, and to new investors, in something like “normal” conditions. The current pull-back after the July 2015 equity collapse brought us further than ever from that objective.

5. Internationalization is unleashing powerful new forces, but has still not become institutionalized in a set of normal and predictable procedures or channels.

For all these reasons, financial liberalization is on the policy agenda, and needs careful consideration.

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Table 19.3 China Bank Regulatory Commission, 2014 Annual Report [中国银行业监督管理委员会 2014 年报], p. 152.

Table 19.4 China Bank Regulatory Commission website. CBRC.gov.cn and CBRC Annual Reports.

Figure 19.1

Figure 19.2 China Securities Regulatory Commission website.

Figure 19.3 Chinabond.cn.com website

Figure 19.4 National Bureau of Statistics. Statistical Abstract 2015: 141.

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