

Research Series on the Chinese Dream
and China's Development Path

Dexu He

Financial Security in China

Situation Analysis and System Design



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Research Series on the Chinese Dream and China's Development Path

Project Director

Xie Shouguang, President, Social Sciences Academic Press

Series Editors

Li Yang, Vice president, Chinese Academy of Social Sciences

Li Peilin, Vice president, Chinese Academy of Social Sciences

Academic Advisors

Cai Fang, Gao Peiyong, Li Lin, Li Qiang, Ma Huaide, Pan Jiahua, Pei Changhong,
Qi Ye, Wang Lei, Wang Ming, Zhang Yuyan, Zheng Yongnian, Zhou Hong

Drawing on a large body of empirical studies done over the last two decades, the *Research Series on the Chinese Dream and China's Development Path* seeks to provide its readers with in-depth analyses of the past and present, and forecasts for the future course of China's development. Thanks to the adoption of Socialism with Chinese characteristics, and the implementation of comprehensive reform and opening, China has made tremendous achievements in areas such as political reform, economic development, and social construction, and is making great strides towards the realization of the Chinese dream of national rejuvenation. In addition to presenting a detailed account of many of these achievements, the authors also discuss what lessons other countries can learn from China's experience. This series will be an invaluable companion to every researcher who is trying to gain a deeper understanding of the development model, path and experience unique to China.

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Dexu He
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Series Preface

Since China's reform and opening began in 1978, the country has come a long way on the path of Socialism with Chinese Characteristics, under the leadership of the Communist Party of China. Over 30 years of reform efforts and sustained spectacular economic growth have turned China into the world's second largest economy, and wrought many profound changes in the Chinese society. These historically significant developments have been garnering increasing attention from scholars, governments and the general public alike around the world since the 1990s, when the newest wave of China studies began to gather steam. Some of the hottest topics have included the so-called "China miracle", "Chinese phenomenon", "Chinese experience", "Chinese path" and the "Chinese model". Homegrown researchers have soon followed suit. Already hugely productive, this vibrant field is putting out a large number of books each year, with Social Sciences Academic Press alone having published hundreds of titles on a wide range of subjects.

Because most of these books have been written and published in Chinese, however, readership has been limited outside China – even among many who study China – for whom English is still the lingua franca. This language barrier has been an impediment to efforts by academia, business communities and policy-makers in other countries to form a thorough understanding of contemporary China, of what is distinct about China's past and present may mean not only for her future but also for the future of the world. The need to remove such an impediment is both real and urgent, and the *Research Series on the Chinese Dream and China's Development Path* is my answer to the call.

This series features some of the most notable achievements from the last 20 years by scholars in China in a variety of research topics related to reform and opening. They include both theoretical explorations and empirical studies, and cover economy, society, politics, law, culture and ecology, the six areas in which reform and opening policies have had the deepest impact and farthest-reaching consequences for the country. Authors for the series have also tried to articulate their visions of the "Chinese Dream" and how the country can realize it in these fields and beyond.

All of the editors and authors for the *Research Series on the Chinese Dream and China's Development Path* are both longtime students of reform and opening and recognized authorities in their respective academic fields. Their credentials and expertise lend credibility to these books, each of which having been subject to a rigorous peer review process for inclusion in the series. As part of the Reform and Development Program under the State Administration of Press, Publication, Radio, Film and Television of the People's Republic of China, the series is published by Springer, a Germany-based academic publisher of international repute, and distributed overseas. I am confident that it will help fill a lacuna in studies of China in the era of reform and opening.

Xie Shouguang

Preface

The financial crisis triggered by the US subprime mortgage crisis put the world on high alert. Ordinary investors, after suffering heavy losses, are looking forward to economic recovery and financial revival. The conclusion of the false prosperity brought on by the disordered development of the financial sector has caused regulators to resort to strict measures, such as the introduction of “Basel III,” the launching of systematic regulatory reforms in the USA, and major adjustments to the UK financial regulatory system. Balancing innovation and stability, the market and government, and dividing financial institutions up by type of business or allowing them to operate diversified businesses—these are repeatedly discussed in critiquing and reconstruction. But no matter what the conclusions, the lesson from history is that *laissez-faire* financial development will inevitably result in disastrous consequences. The financial system must be secure and stable.

Prior to the financial crisis, the Chinese rarely talked of financial security because under strict financial regulation and the strong control of the government, it seemed Chinese finance was naturally secure. The long-term rapid growth of the Chinese economy and China’s smooth experience with the Asian financial crisis validated this view. But in the most recent crisis, the Chinese economy suffered like any other. Foreign trade slid, economic growth fell, and under the impact of the financial crisis, systemic contradictions began to intensify. In the context of the continued integration of the world economy, Chinese finance cannot exist in a vacuum. Financial difficulties in other countries pose challenges to the Chinese financial system. This provides an opportunity for China to adjust its understanding of financial security, adjust its thinking, and redesign financial security measures, as well as to respond to new trends in the international economy.

This book selects typical issues in internal and external security, bank credit “herd behavior,” systemic stock market risks, main risks in the insurance industry,

risks specific to shadow banking, and real estate finance to analyze China's financial security and design an institutional framework for China's financial security. The author hopes to explore financial security maintenance and risk prevention issues in various economic patterns with the international academic community in order to provide support for the security of the international financial system.

Beijing, China

Dexu He

Acknowledgments

After a relatively short gestation period, the *Research Series on the Chinese Dream and China's Development Path* has started to bear fruits. We have, first and foremost, the books' authors and editors to thank for making this possible. And it was the hard work by many people at Social Sciences Academic Press and Springer, the two collaborating publishers, that made it a reality. We are deeply grateful to all of them.

Mr. Xie Shouguang, president of Social Sciences Academic Press (SSAP), is the mastermind behind the project. In addition to defining the key missions to be accomplished by it and setting down the basic parameters for the project's execution, as the work has unfolded, Mr. Xie has provided critical input pertaining to its every aspect and at every step of the way. Thanks to the deft coordination by Ms. Li Yanling, all the constantly moving parts of the project, especially those on the SSAP side, are securely held together, and as well synchronized as is feasible for a project of this scale. Ms. Gao Jing, unfailingly diligent and meticulous, makes sure every aspect of each Chinese manuscript meets the highest standards for both publishers, something of critical importance to all subsequent steps in the publishing process. That high-quality if also at times stylistically as well as technically challenging scholarly writing in Chinese has turned into decent, readable English that readers see on these pages is largely thanks to Ms. Liang Fan, who oversees translator recruitment and translation quality control.

Ten other members of the SSAP staff have been intimately involved, primarily in the capacity of in-house editor, in the preparation of the Chinese manuscripts. It is time-consuming work that requires attention to details, and each of them has done this, and is continuing to do this with superb skills. They are, in alphabetical order: Mr. Cai Jihui, Ms. Liu Xiaojun, Mr. Ren Wenwu, Ms. Shi Xiaolin, Ms. Song Yuehua, Mr. Tong Genxing, Ms. Wu Dan, Ms. Yao Dongmei, Ms. Yun Wei and Ms. Zhou Qiong. In addition, Xie Shouguang and Li Yanling have also taken part in this work.

Ms. Shi Xiaolin is the SSAP in-house editor for the current volume.

Our appreciation is also owed to Ms. Li Yan, Mr. Chai Ning, Ms. Wang Lei and Ms. Xu Yi from Springer's Beijing Representative Office. Their strong support for the SSAP team in various aspects of the project helped to make the latter's work that much easier than it would have otherwise been.

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Chapter 1

The Impact of the Global Financial Crisis on China's Financial Security

Ever since the U.S. financial crisis evolved from a subprime mortgage problem, it has had a systemic impact on the international financial system and global economic growth. As of the end of September 2012, the impact of the most serious systemic financial crisis since the Great Depression was still deepening. The financial tint of the U.S. financial crisis has faded, and its impact has gradually been transmitted to the trade and growth of various economies, the health of public sector finances, global economic rebalancing and other more fundamental sectors. We have entered a post-crisis era where the impact on international financial markets and the global economic system is more substantive.

With the financial crisis, there is still a downturn in growth in the global economy, a serious deficiency in aggregate demand, and an increased risk of financial instability, especially with sovereign debt problems created in the response to the financial crisis, which have put the global economy in a “new risk phase.” Debt crisis is still a major long-term risk.

The impact of the financial crisis on China has continued to deepen, evolving from the financial sector to the real economy. In the post-financial-crisis era, with developments in the international economy and in China's own economy, the Chinese economy is currently experiencing major issues including a substantial decline in trade, increased pressure on financial stability, an imbalance between domestic and foreign economies, difficulties in macroeconomic controls and structural adjustments, and risks accumulated from financial reform and opening.

Under the impact of the financial crisis, the sustainability of China's model of export and investment-driven growth has fallen, and distortions in the structure of the Chinese economy have strengthened. The leverage ratio is increasing, and risks to the Chinese financial system are accumulating. There are many root causes, including the impact of the financial crisis itself, as well as domestic policy frameworks, industry policies, and macroeconomic behaviors. Endogenous root causes are in reality more obvious.

The policy response has been on an unprecedented scale, and overall effective. But the negative effects have also been prominent. After the outbreak of the financial crisis, the wariness of Chinese policy authorities regarding the negative impact of the crisis did not relax, and they took active measures in response. Overall, under the impact of such a massive financial and economic crisis, China was able to maintain growth of over 7.5%, with the positive policy response working as a basic guarantee. However, China's stimulating policies have been unprecedented and there are many negative side effects requiring active work to prevent.

Due to the continuing impact of the financial crisis, falling external demand and the rebalancing of the global industrial chain may be trends, which place substantial constraints on an export and investment-driven growth model. The transition of the Chinese economy to a model supported by internal demand and consumption is necessary. In this process, the downward movement of the pivot point of Chinese economic growth is a trend, and it will be difficult for the policy framework to reverse this trend. Urbanization may be a fundamental path to transforming the deadlock of the dual economic structure. However, it must still be coordinated with economic structural reforms, financial reforms, and the relaxation of financial controls. At the same time, China must establish a sound economic and financial risk prevention mechanism.

1.1 The Chinese Economy and Financial Difficulties Under the Financial Crisis

The influence of the U.S. financial crisis on the global economy has not yet ended, and we are currently in a phase of new risks. The crisis has caused the global economy to date to remain in a phase of depressed growth, with a serious deficiency in global aggregate demand and significantly increased risks to financial stability, especially with sovereign debt problems caused in the response to the financial crisis, which have placed the global economy in a "new risk phase." Debt crisis is still a major long-term risk.

As the world's second-largest economy and its largest exporter, China has been deeply involved in the global division of labor and globalization process. At the same time, the impact of the financial crisis on China has been more direct, substantive, and far-reaching. In the post-crisis era, with the development situations of the international economy and the Chinese economy, serious problems exist in the Chinese economy, including a substantial decline in trade, increased pressure on financial stability, an imbalance between the domestic and foreign economy, difficulties in macroeconomic controls and structural adjustment, and accumulating risks from financial reform and opening.

1.1.1 *Falling Exports*

Foreign trade, which has been a major engine of Chinese economic growth for more than three decades, is now experiencing the most serious situation since reform and opening. The downturn in import and export growth has been the longest since reform and opening. As of August 2012, there had been a falling trend for more than 2 years (see Fig. 1.1).

First, trade growth has been on a downward trend. In contrast to the great pulsing impact from 2008 to 2009, the fall in trade growth in the current period is more likely to be a trend.

Second, the rise in trade protectionism is squeezing the space for new policies and means existing policies for stable growth may not be fully effective.

Third, the decline in trade growth has removed a major driving force of economic growth. Exports and related investment have been one of the major drivers of high-speed growth in China, but this driver is weakening. In August 2008, China's imports experienced 2.6% negative growth, and exports from January to August grew only 7.1% over the same period the year before.¹

1.1.2 *Domestic-Foreign Economic Imbalance and No Substantive Progress in Economic Restructuring*

Before the financial crisis, the global economic imbalance represented by imbalances in the current and capital accounts reached an historic level. Since then, the

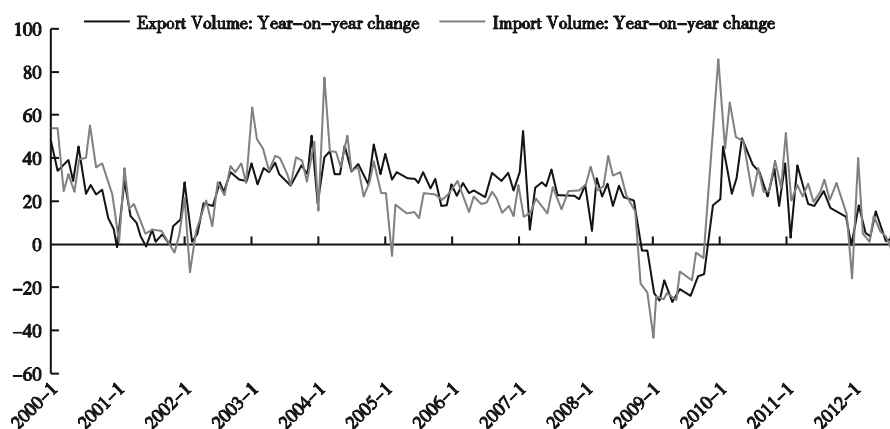


Fig. 1.1 A sharp fall in Chinese import and export growth (Source: Wind Database)

¹ Source: General Administration of Customs import and export data for August 2012, September 10, 2012.

U.S. and China have become the two major sides of the imbalance, with the U.S. carrying a huge current account deficit and China a massive surplus. The situation has not improved markedly since the July 2005 reform to the yuan exchange rate formation mechanism. In particular, the Chinese capital account surplus has climbed amid stable expectations of a gradually appreciating yuan. China has become the lamest economy in an unbalanced global system. With dual surpluses, it has accumulated the world's largest foreign exchange reserves. In fact, this situation is related to imbalances in China's domestic economic structure. The net money supply in the current account is directly related to China's savings-investment gap. Domestic and foreign economic imbalances are actually interrelated (Yu Youngling 2010).

After the financial crisis, driven by international pressure and reforms to the domestic economic structure, the Chinese economy too began the rebalancing process. This process mainly entails two aspects. First is a reduction in the foreign supply of money, in particular a reduction in the trade surplus and capital account surplus. Positive progress has been made in this aspect. The second is improvement to the gap between domestic savings and investment. No substantive progress has been made in this area, with the savings rates of the corporate and public sectors continuing to rise. This aspect has also been supported by high investment from China's 4 trillion yuan stimulus package. Thus, China's model of investment-based growth supported by high savings has not changed since the financial crisis, and the economic structure has not improved.

The financial crisis gave China an opportunity to adjust its growth model and structure. Some progress has been made in adjusting external imbalances, but this has not transformed into improvement to domestic imbalances. Rather, the model of investment-driven growth has strengthened. This is one of the biggest problems facing the Chinese economy.

1.1.3 Dilemma for Macro Control

Macro controls are a significant foundation of China's high-speed and stable economic growth. After the financial crisis, the key to whether China's economy can quickly recover and lead global economic growth lies in aggregate demand management and the timeliness, relevance, and effectiveness of the macro control framework.

However, Keynesian aggregate demand management is less and less effective given the slight "stagflation" of the global and Chinese economies.

First, the macro control model based on management of aggregate demand is often an expansionary policy framework, but its effectiveness is actually marginally decreasing. For example, China's incremental capital output ratio (ICOR) exceeded five from 2009 to 2011, meaning that it took five units of capital investment to produce one unit of GDP, a very low level of efficiency (Fig. 1.2).

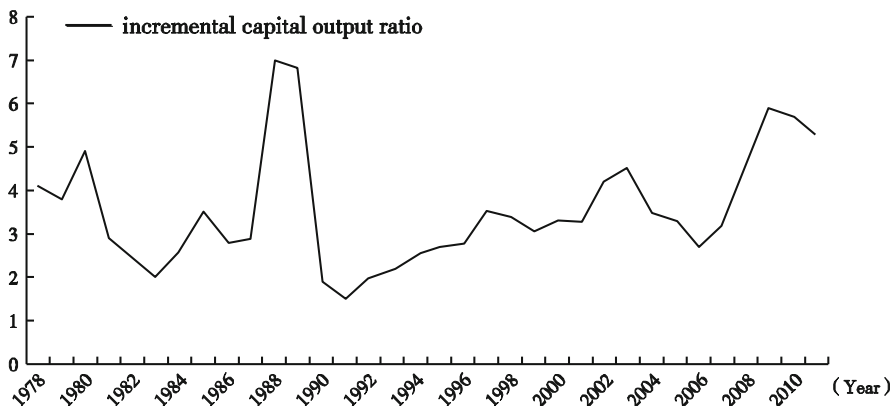


Fig. 1.2 Low efficiency of Chinese capital investment (Source: Liu Haiying 2011. The author calculated data for 2010 and 2011 based on Liu's methods)

Second, the model of control is more favorable to maintaining growth, and its effectiveness in adjusting the economic structure is insignificant. China's growth model and economic structure were further solidified in the crisis.

Third, there is a dilemma between loosening and tightening. From the perspective of maintaining growth, macroeconomic policy still needs to be relaxed. But from a perspective of stable prices and housing prices, a tight monetary policy must be continued. China's space for macro-control policy is increasingly narrow.

The causes of sharply rising prices since the second half of 2012 differ from those of the last two inflationary periods. First, the rise in the CPI is mainly concentrated in rising food prices. Second, the leading cause is that cost-push factors are exceeding demand-pull factors. Third, global oil and food prices continue to climb, adding fuel to the fire. Coupled with the fact that economic development has for some time been built on excessively low factor costs for labor, land, energy, and the environment, failure to adjust the distorted cost-price relationship will impact the growth of effective supply. After the world's major developed economies collectively implemented quantitative easing policies, "imported" cost pressure became more significant. In this case, simply adopting a tight monetary policy cannot effectively alleviate the inflationary situation, and rushing to adjust factor cost prices will further push up the current price level. Thus, macro control faces difficulties from two sides.

1.1.4 Greater Risks to Financial Stability

The financial crisis has not had a major direct impact on China's financial sector and financial system. At the time of the crisis, China's financial sector was relatively closed, and foreign investments were basically restricted to high-end financial

products, with little investment in subprime products. For this reason, when the subprime mortgage crisis evolved into a systemic crisis, China suffered little direct impact outside of the stock market.

With the development of the financial crisis and the implementation of China's policy response, latent financial risks have accumulated, posing an increasing challenge to the stability and security of the financial system.

First, because of massive expansion of credit, non-performing loans in the banking sector increased significantly. A China Construction Bank report from the first half of 2012 shows that the bank had short-term loans of 1.56 trillion yuan, with non-performing loans accounting for 33.29 billion yuan, a non-performing rate of 2.13%.²

The second risk is local financing platforms. In theory, this is a financial issue, but due to the properties and guarantee situations of local financing platforms, the financing platform risk may be a fiscal issue.

Third is risk from off-balance-sheet business. The rapid development of off-balance-sheet business has resulted in a "Chinese-style shadow banking system" (referring to the large volume of off-balance-sheet business, trust companies, guarantee companies, and other Chinese financial institutions and their financing mechanisms, which are relatively unregulated). Using trust companies as an example, trust assets at the end of 2008 amounted to only 1.2 trillion yuan. By the end of 2013, this number had expanded to 10.91 trillion yuan.³

Fourth is the risk of asset bubbles. Due to the release of a large volume of money, China's real economy, particularly the real estate sector, has become overly monetized. The real estate bubble continues to inflate. It can be said that China's financial risks have not been released with the financial crisis. Rather, China has accumulated new and greater financial risks in its response to the crisis.

1.1.5 A Long Way to Go for Financial Reform and Opening

After the financial crisis, China's financial reforms have entered a new stage of development. First, while reform to the yuan exchange rate mechanism has stagnated for a time, there has been positive progress in a market-oriented and flexible direction (See Fig. 1.3). Second, with the internationalization of the yuan in cross-border trade, the Hong Kong offshore market is flourishing. Third, the curtains have been lifted on domestic, small-scale financial reforms represented by Wenzhou and outward-facing financial reforms represented by Qianhai. Fourth, financial innovations are emerging one after another, with trusts, leasing, small and micro bonds, and margin trading experiencing some degree of development. Fifth, good progress has been made in market-oriented yuan interest rate reforms, with a particular breakthrough being made with the deposit interest rate in 2012. Finally, financial

² Source: China Construction Bank 2012 Interim Report, August 26, 2012.

³ Source: China Trust Industry Association website.

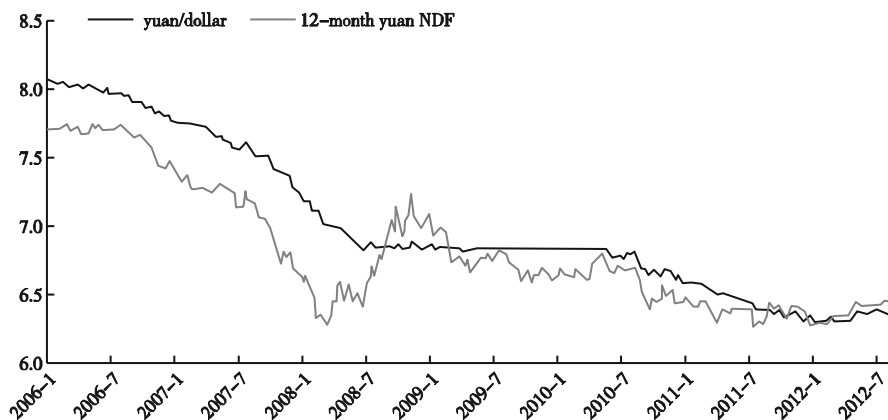


Fig. 1.3 Yuan exchange rate flexibility gradually revealed (Source: CEIC)

opening to the outside world has deepened, with access of foreign capital to China being continuously relaxed and Chinese investment in overseas markets continuing to develop.

However, there are still substantial insufficiencies and risks in China's financial reform and opening. First, interest rate market-oriented reforms lag significantly behind economic development and the development of the market economy, causing capital not to be effectively allocated as a factor. Second, the internationalization of the yuan is more virtual than real. For example, cross-border trade settlement is mostly done by Chinese enterprises, and it is a "lame" settlement model, i.e. the export sector, which should be denominated in yuan, is using U.S. dollars, while the import sector, which should be denominated in dollars, is using yuan. This sends the benefit of cross-border trade settlement abroad, while the risk remains with China (He Fan, et al. 2011). Third, significant precautions have still not been taken against the risks of financial liberalization. For example, financial institutions largely invest abroad as they please. Fourth, the macroprudential management system framework still needs to be improved. For example, systemic mismatches in oversight of financial holding companies, and mixed-business and separated-business oversight have not been substantively improved since the financial crisis. Finally, financial policy makes more use of administrative measures than price and market instruments.

1.2 The Reasons the Financial Crisis Led to China's Economic and Financial Difficulties

The outbreak and evolution of the financial crisis was a settlement of the U.S. growth model of over-consumption and excessive credit. In theory, it should be an opportunity for institutional reform for China and other export-oriented economies with high savings rates.

Looking at the global production chain and international division of labor, China and other manufacturing economies are on the periphery of the post-Bretton Woods system, mutually bound to the U.S. as the center country through trade and capital channels. Adjustment to center countries must necessarily lead to a negative feedback effect, leading to adjustments in periphery economies (Dooley et al. 2003) (See Fig. 1.4).

However, from the perspective of China's development, policy measures, and institutional reforms, China's response to the crisis has been more technical risk prevention and growth promotion than strategic restructuring and paradigm shifting. In this process, the sustainability of China's growth model has fallen, distortions in China's economic structure have strengthened, and China's leverage rate has risen while risks to China's financial system have accumulated. There are many root causes, both in the impact of the financial crisis itself as well as policy frameworks, industrial policies, and microeconomic behaviors.

1.2.1 The Continued Accumulation of International Financial Risks Continues to Have an Adverse Impact on China's Economy

After the outbreak of subprime mortgage problems, financial risks were transmitted to the real estate market, credit market, and overall financial market. They evolved from the U.S. real estate sector to the U.S. and around the globe, and spread from the financial sector to the real economy. Thus, overall financial risks have not been reduced. Rather, greater risk has been distributed across a wider area and more sectors. Global financial risks have simply decentralized from the U.S. to the entire

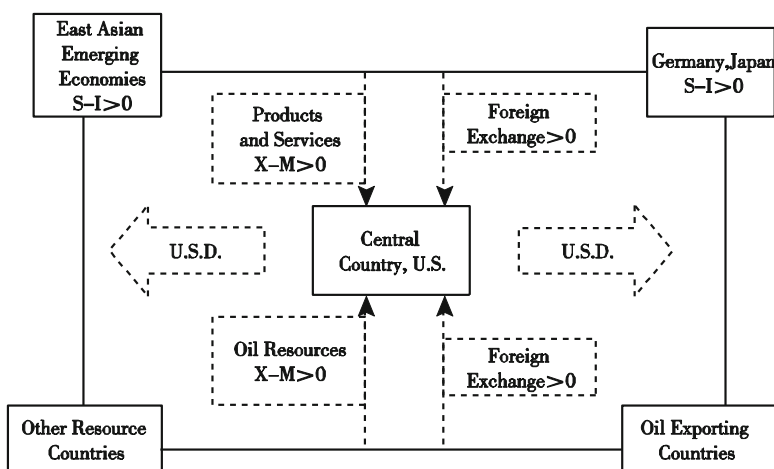


Fig. 1.4 The post-bretton woods center-periphery system (Source: Dooley 2003)

world. In particular, the outbreak of the European debt crisis has caused the global financial system to enter a “new risk stage” (IMF 2012).

The global spread of financial risks has inflicted a serious wound on the deeply globalized Chinese economy. First, risk-averse capital has returned to the U.S., bringing U.S. Treasury yields to historic lows, with 10 year bond yields down to 1.3875 % (July 24, 2012).⁴ Second, the fall of capital caused international capital to revalue other related assets. The yuan began to enter an era of slight depreciation, and the Hong Kong market even began short selling yuan assets. According to the Hong Kong Monetary Authority, as of August 31, 2012, more than HKD 30 billion was being used to short sell Chinese bank stocks in the Hong Kong market. Third, the financial crisis caused multinational companies to deleverage, and a trend of returning to the U.S. emerged, contracting the global industrial chain. China, as the production segment of the chain, felt the most severe impact.

In short, with the financial crisis and its resulting financial risks, the Chinese economy began to face risks of capital outflow, asset revaluation, and foreign leverage contraction. This fractured the process of capital accumulation faced by a foreign-facing economy, and the Chinese economy supported by capital investment began to experience financial difficulties.

1.2.2 Insufficient Global Aggregate Demand Challenges China's Export- and Investment-Driven Model

The subprime crisis not only exposed the faults of the U.S. economic growth model, it was also a turning point in the global long wave cycle, declaring that the new period of prosperity supported by information technology had crossed its historic height and the world had entered a period of cyclical decline.

According to Kondratiev and Schumpeter's study of long-wave cycles, once a cyclical turning point is reached, the global economy will fall into a depressed phase of recession and depression. Based on historical experience, this stage can last as long as a decade. According to this logic, due to a lack of revolutionary technological innovation, the global economy is likely to experience a relatively long downturn after the financial crisis, mainly lying in a need for substantial deleveraging in the virtual economy. The leverage ratio of the real economy will also decrease, and the process of reducing leverage is simply a process of relative decline in aggregate demand (see Fig. 1.5).

China's accession to the World Trade Organization (WTO) in 2001 ushered in new opportunities for the development of China's export-oriented economy. China has continued to penetrate into the global industrial chain division of labor and has become one of the most important production segments in the global industrial chain. But in the context of insufficient global aggregate demand, a reduction in

⁴ Source: Bloomberg.

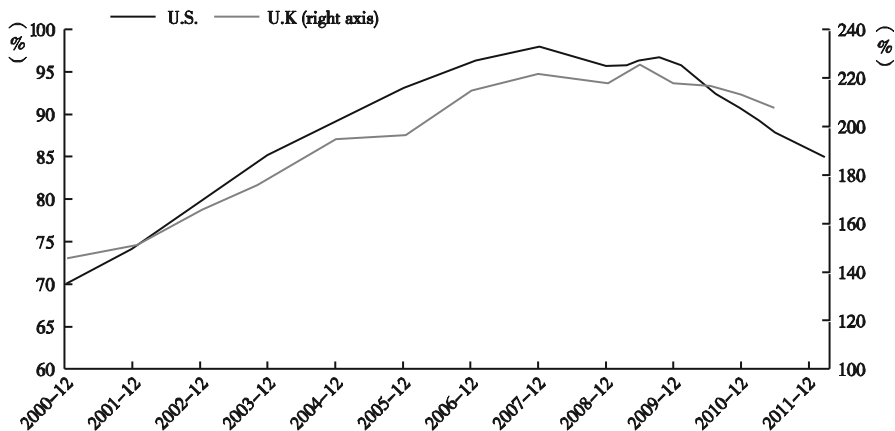


Fig. 1.5 Debt ratios in the U.S. and U.K. private sectors (Source: CEIC)

demand for the production segment from the consumer market is inevitable. In particular, the atrophying of the two traditional consumer markets of the U.S. and Europe has directly led to a downturn in Chinese exports. And this trend may continue for some time. With the return of manufacturing to developed economies and a restoration of their export sectors, China's downturn may become a normal state. Insufficient global aggregate demand due to the financial crisis is the most direct cause of the decline in China's foreign trade and economic growth.

At the same time, because the Chinese investment and export sectors are closely related, and in particular because of the close relationship between manufacturing investment (accounting for nearly a third of total investment) and the export sector, the decline in exports has meant a significant decline in investment, further pulling down the economic growth rate. From January to August 2012, urban fixed asset investment grew 20.2% over the same period the year before, a significant decrease from the approximately 25% investment growth in the previous several years. In August 2012, the producer price index (PPI) hit a 36-month low, continuing 7 months of below-zero performance, with corporate profits making a "hard landing." Deflationary pressure on the productive sector has appeared (see Fig. 1.6). One can see that insufficient aggregate demand is shaking China's domestic export and investment sectors, putting deflationary pressure on the productive segment, causing exports to continue to slump, and significantly reducing the economic growth rate.

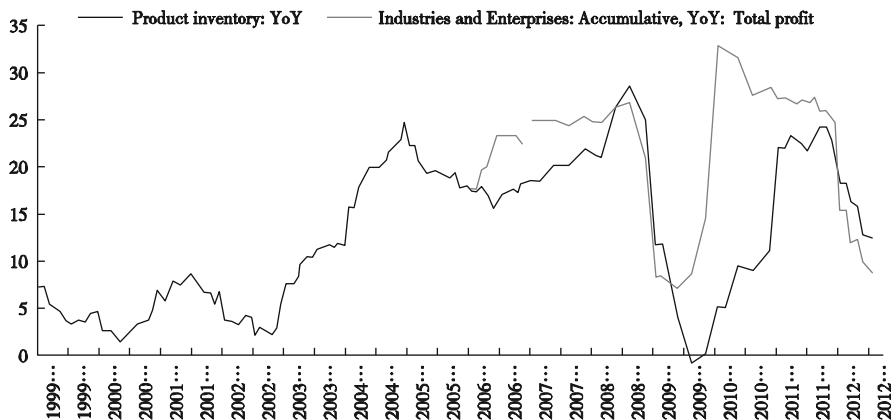


Fig. 1.6 “Hard landing” for Chinese industrial profits (Source: CEIC)

1.2.3 Further Imbalance from Excessive Focus on Growth in the Macroeconomic Policy Framework

Maintaining growth and achieving structural adjustment have been the two major goals of China's macro controls. In theory, there may be no substantive contradiction between growth and structural adjustment, with a certain rate of growth providing space and a buffering mechanism for adjustment. Likewise, restructuring is done to achieve better growth.

However, looking at the experiences of Japan, South Korea, and Taiwan, economic restructuring must be accompanied by a decline in economic growth because the restructuring is often a reform to the existing model of growth, which will inevitably result in a shift from old to new growth poles. More important, prior to the establishment of the new growth model, the weakness of the old model will lead to a decline in growth. In particular, China's social and economic structure is extremely fragile in the face of extremely complex structural issues, which requires China to avoid sharp fluctuations in the economy. Therefore, adjustments to the economic structure must take the maintenance of growth into account.

Insufficient aggregate demand and cyclical fluctuations in demand itself cause the government to pay substantially more attention to ensuring growth. Prior to the financial crisis, China took growth into account while attempting to adjust the economic structure. After the financial crisis, maintaining growth became the primary policy objective. Subsequently, with inflation as a consequence of large-scale stimulus, controlling inflation became a top priority. With the recovery of the global economy and a cyclical decline in China's economic growth, maintaining growth once again became the new prime policy objective in 2012.

More importantly, in the implementation of policy, maintaining growth has been in the more prominent position. Maintaining growth, adjusting the economic structure, and controlling inflation often vary at the central level, but in

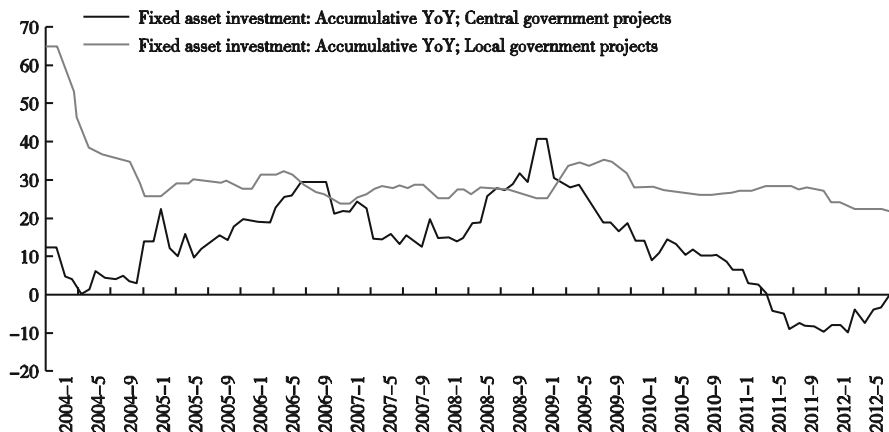


Fig. 1.7 Local governments still focusing on investment (Source: CEIC)

implementation by local governments, maintaining growth is still the number one goal (see Fig. 1.7). One can see that the significant recovery after the financial crisis was built on elements such as massive stimulative policies, short-term losses of potential output, a deteriorating economic structure, and intensifying internal and external dynamic imbalances. The driving mechanism for economic growth seriously relies on the extension of stimulus policies, inefficient investment, and lagging institutional maintenance, and growth is short-term, fragile, and variable.

In short, China's macro control framework as a whole is effective, but policy measures were too vigorous in the response to the financial crisis. With 4 trillion yuan in investment, 10 trillion yuan in credit, and numerous industrial revitalization programs, growth has been maintained perfectly, but distortions in the economic structure have strengthened. The response to the financial crisis has done nothing to correct internal imbalances but has actually produced additional excess capacity. To some extent, in the larger context of the financial crisis, inappropriate institutional frameworks and policy measures must bear some responsibility for the slow pace of restructuring.

1.2.4 Lagging Financial Reforms Cause Inefficient Allocation of Resources and Concentrated Risks

The outbreak and spread of the financial crisis caused China's financial regulators to believe in the need to accelerate reform of the financial system, vigorously promote institutional financial reforms, and ensure financial stability and security through reforms and financial innovation. During the crisis, the Chinese financial system withstood a number of risks: exposure to risky, subprime assets, revaluation risk based on the falling prices of financial assets, increased difficulty in exchange

reserve management from the unprecedented risk to U.S. dollar-denominated reserves, and poor performance of foreign investments.

These risks have indeed pushed forward reforms to the financial system, such as to the yuan exchange rate formation mechanism and the internationalization of the yuan. But the financial system overall lacks a systematic, strategic plan for reform, which has caused overall financial reforms to stagnate, not only falling behind the pace of China's economic development but behind the rate of China's global economic interaction.

First, China's financial system reforms lack systematic arrangements. There are no strategic programs for the market-oriented reform of the financial factors market, the near-, medium-, and long-term goals of financial reform, or the integration of the development of the financial system with the real economy.

Second, most departments are in charge of their own reforms, which lack strong and effective coordination, such as the multi-departmental management of trade promotion and exchange rate reform, the trade financing and guarantee mechanism, and the bond market, with each department going its own way and on-book and off-book oversight of financial institutions.

Third, reforms to the various sub-sectors are not very effective. For example, substantive reforms have not been carried out for the securities industry exit mechanism (repeated exits of ST stocks), the IPO pricing mechanism, accounting standards and a punishment mechanism for listed companies, and a liability regime for investment banks.

Fourth, the macro-prudential financial management framework continues to make slow progress. With the transformation of the U.S. financial crisis into economic and sovereign debt crises, establishing a counter-cyclical credit management mechanism and strengthening the macro-prudential management system for systemically important financial institutions gradually faded from the sights of financial management authorities, and the establishment of a macroprudential institutional framework has slowed.

Of course, there is a direct relationship between lagging financial reforms and the slowing pace of reform of the Chinese economy overall. For example, market reforms of financial factor prices must be coordinated with and complement market reforms of other factor prices in the real economy. Prices of labor, capital, energy, resources, and the environment are still controlled. Overly rapid market reforms to financial factor prices will result in the emergence of even greater financial risks.

But there is no doubt these financial system reforms have indeed restricted Chinese financial factors and the overall allocation of resources, making the economy less efficient and more vulnerable.

For example, certain companies on the Growth Enterprise Market have valuations far beyond reason—with market values several times or even dozens of times the enterprise replacement cost. So shareholder motivation is not to own a good business but to reduce sell of shares of a successful business and to use the funds obtained to start similar companies. Such a capital market lacks the basic functions of circulating funds and servicing the real economy. Instead, it becomes a capital banquet for the few. The many small and medium, “growth-type” investors (the

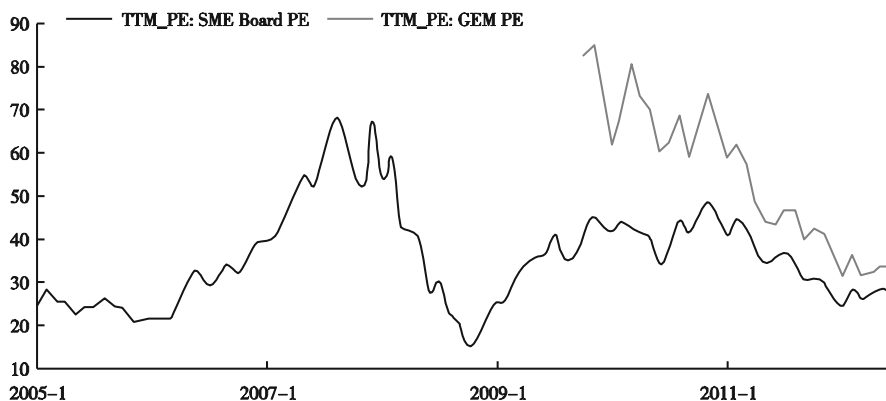


Fig. 1.8 Growth enterprise market index valuations fall steeply, prices continue to decline (Source: CEIC)

highest dynamic price-equity ratio (PE) on the GEM reach as high as 90 times, meaning that an investor could wait approximately 90 years to recover the investment cost, not considering the time cost of money) foot the bill for the risk, suffering severe losses of wealth (see Fig. 1.8).

If a market punishment mechanism were perfected, by for example, directly delisting listed companies found to be fabricating results, punishing those responsible, and employing strict prohibitions on reentering the market, the capital market would be stronger. For this reason, the risks in the Chinese financial system are influenced by the financial crisis but also have their own origins.

1.3 Assessment of Chinese Financial Reforms and Risk-Prevention Policies

Since the financial crisis, China has entered a new stage in which the worsening external environment is compelling domestic reforms, and good progress is being made in financial reforms and risk prevention. In a September 19, 2012 essay titled “Dang de shiliuda yilai woguo jinrongye gaige fazhan qude juda chengjiu [China Has Made Great Achievements in the Development of Financial Reforms Since the Sixteenth Party Congress],” People’s Bank of China Governor Zhou Xiaochuan wrote that through financial reforms, the ownership and governance structures of financial institutions have improved, management methods have changed fundamentally, capital adequacy ratios have increased substantially, asset quality has improved, and profitability and risk control capacity have been significantly enhanced.

After the financial crisis, great progress has been made in the focus of financial reform (Zhou 2012). First, rural financial reform has been pushed forward

significantly and rural services gradually improved. Second, the pace of market reform of interest rates has accelerated. Third, major breakthroughs have been achieved in the yuan exchange rate formation mechanism. Fourth, the balanced development of the foreign exchange management mechanism has promoted a balance of international payments. Fifth, the inter-bank bond market has developed by leaps and bounds. Finally, risk management capabilities have improved, and the initial establishment of a macroprudential management framework has begun. One can see that positive progress has been made in financial reforms made by the financial industry itself, finance servicing the real economy, market reforms to financial factors, and risk management mechanisms.

However, one must also look at the deficiencies in China's financial reforms. First, looking at the financial market system, the proportion of indirect financing rose, rather than fell, during the financial crisis, leading to the independent growth of the banking system. In 2011, net profit at the Industrial and Commercial Bank of China (ICBC) amounted to 205.4 billion yuan, while net profit in the securities industry reached only 39.4 billion yuan. Although the capital market fell during that period, this also reflects the limited role of the direct financing sector.

Second, the financial services industry is still dominated by state-owned and large enterprises, and the allocation of funds fails to meet the needs of the real economy. State-owned and large enterprises do not have major financing issues, and they have more diverse and unhindered financing channels available. Small and medium businesses, micro enterprises, and rural areas, on the other hand, have difficulty obtaining funds, leading directly to inefficient use of resources and a distorted economic structure.

Third, innovation among financial institutions is insufficient. The financial crisis inhibited financial innovations to a certain extent, and innovation in China's financial sector slowed. Today, the operations of financial institutions are relatively homogeneous, with limited financial instruments, a low level of specialization, and little differentiation. These institutions are unable to satisfy increasingly diverse, multi-level needs for financial services. Insufficient innovation is one of the financial system's biggest problems (Guo Shuqing 2012).

More important, financial risk prevention mechanisms have not been perfected. First, as a result of management of systemically important capital under the prudential framework, the situation has improved for large financial institutions that may pose systemic risks, but the oversight of financial holding companies still needs to be improved. Second, financing structure and asset allocation are causing vulnerabilities in the financial system to accumulate. Credit risks overly concentrated in banks and large enterprises are increasing. Third, there are still regulatory loopholes, such as in oversight of off-balance-sheet business and private equity funds. Fourth, financial institutions are still inadequate in their overseas risk management capabilities (Jiao Jinpu 2010). Finally, the endogenous systemic mechanism for financial risk has not been broken and regulated. This is mainly reflected in the mismatch between the operation of the Chinese financial system and the regulatory model. One of the greatest lessons of the U.S. financial crisis was that the mismatch between mixed business models and a regulatory model divided by

business is a major source of the production, outbreak, and expansion of systemic risk (Zheng Liansheng and He Dexu 2009). The U.S. and the E.U. have both established risk management boards to fill in this gap, but China has introduced no new measures. Rather, in the context of demands for economic growth, off-balance-sheet business and mixed business operations have developed vigorously, resulting in a Chinese-style shadow banking system. This is an important source of financial risk in China.

1.4 Future Trends and Direction of Chinese Financial Development

After the financial crisis, the Chinese economy experienced a substantial recovery through massive stimulus. But with the withdrawal of stimulus policy and a second dip in global aggregate demand, the Chinese economy again fell into a stage of significantly declining growth and growth rate. Economic policy has walked a line between maintaining economic growth and adjusting the economic structure, and maintaining economic growth has again become the number one priority. But the economic consequences of massive stimulus have continued to rear their heads, shrinking the space for new policy measures. The future direction of the Chinese economy and how to push forward financial reforms are real and pressing concerns for Chinese regulators.

1.4.1 Financial Reform and Financial Liberalization

After the global financial crisis, China instituted a series of financial system reforms. But there are still many shortcomings, particularly inadequate integration between finance and the real economy, the bank-led nature of the Chinese financial system, distortions in the financing structure, insufficient financial innovation, regulatory loopholes and blind spots, as well as systemic mismatches between financial business models and regulatory models. These areas are likely to generate new risks.

The “Jinrongye fazhan he gaige ‘shi’er wu’ guihua [Twelfth Five-year Plan for Financial Sector Development and Reform]” released in September 2012 sets out a specific path for financial reform and development over a period of time, from improving financial controls, to optimizing the organizational system, building financial markets, deepening financial reforms, expanding openness to the outside world, maintaining financial stability, and strengthening infrastructure. It sets out the important tasks for the development and reform of financing during the period of the Twelfth Five-year Plan.

The plan proposes the major goals for financial development and reform during the period:

- Smooth and quick development of financial services and moderate growth in the scale of social financing;
- Significant progress in adjustments to the financial structure and a significant increase in the proportion of direct financing within total social financing;
- A stronger role for the market in the allocation of financial resources, significant progress in market reform of interest rates, further improvement to the yuan exchange rate formation mechanism, gradual achievement of yuan capital account convertibility, and gradual improvement of the multi-level financial market system;
- Deeper reform of financial institutions, gradual improvement of the modern enterprise system for large financial institutions, significant improvements to innovation development and risk management capabilities, and stronger international competitiveness for financial institutions;
- Full coverage of financial services, insistence on the essential requirement of finance servicing the real economy, and further expansion of support for scientific and technological innovation and adjustment to the economic structure;
- Overall controllability of financial risks, continued improvement to the risk management capabilities of financial institutions, further improvement to the systemic financial risk prevention and early warning, assessment, and treatment systems, and the basic establishment of a financial safety net system including a deposit insurance system.

1.4.2 Improvement to the Financial Risk Prevention Mechanism

China's macro-control and policy system is a "shock-response" model in which external shocks act as motive for policy response and institutional reform, but all large policy adjustments and institutional reforms are set off by shocks. The advantage of this institutional framework is that it is targeted and effective. The disadvantage is that policies and institutional adjustments may be made too hastily with inadequate consideration of the negative impacts and risks.

A better way to change the weaknesses of this macro-control and policy framework would be to establish and perfect a systemic economic and financial risk prevention mechanism and move from post-incident treatment to pre-incident prevention. This would greatly reduce the cost of policy adjustment and institutional reform while at the same time reducing the negative impacts of policy and institutional change. For example, from the perspective of financial risk prevention, improving the financial macro-prudential management system framework is of the utmost importance, and establishing and perfecting a risk prevention mechanism for financial liberalization is also necessary for China's financial system to move out into the world.

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Chapter 2

The Hidden Dangers and Risks to China's Currency Security

Since the 1980s, new changes have emerged in the economic cycles of world economies. Demand management policies have ironed out cyclical fluctuations, lengthening economic cycles and making them less notable. In contrast, changes in financial markets are more significant. Asset prices often fluctuate sharply over fundamentals, and large-scale international cross-border capital flows bring about debt crises and currency crises. In the operation of the financial system, structure, behavior, regulation, and other factors exhibit procyclical features, amplifying and accelerating small shocks and causing severe economic fluctuations. The impact of financial factors on the real economy is more and more significant and lasting, with the resulting instability changing to the financial side. The cyclical characteristics of finance and economics are more prominent,¹ and any factor affecting financial stability and security may threaten economic security. Financial security has become the core of economic security.

Financial security is a country's ability to resist various internal and external threats and attacks within financial development, ensure the financial system and financial sovereignty are not violated, and enable the financial system to maintain normal operations and development (Wan Yuanlong 2004). Financial instability, financial risk, and financial crisis are the main embodiments of financial insecurity. In the early twentieth century, Veblen (1904)'s "financial system instability" hypothesis pointed out that there are inherent forces of cyclical volatility in economic development, and these forces are mainly concentrated in the banking system. Fisher (1933) put forward the "debt-inflation theory," saying that the fragility of the banking system is closely related to the macro-economic cycle, particularly with the repayment of debt, and financial crises are formed by financial incidents triggering debt-deflation.

¹The financial-economic cycle is a new concept. It refers to sustained fluctuations and cyclical changes formed by financial and economic activities impacted by internal and external factors transmitted through the financial system.

Subsequently, Minsky (1964) put forward the “financial fragility” hypothesis, stating that the relationships among bank fragility, banking crisis, and changes to economic cycle are endogenous, and financial instability is mainly caused by adverse selection and moral risk from asymmetric information, which under the influence of external shocks causes currency crisis, which in turn causes deteriorating financial conditions at banks and other financial institutions, ultimately leading to financial crisis (Mishkin 1999).

Bernanke et al (1983, 1989, 1996, 1999) innovatively propose the Financial Accelerator Theory on the foundation of these ideas. The Financial Accelerator Theory mainly studies the question of how external shocks persist and are amplified in the economic system via the financial system and uses this to explain the effect of financial elements on macro-economic fluctuations and economic cycles. In terms of its implications, the Financial Accelerator refers to real and nominal internal and external shocks to an economy being enlarged and accelerated through the effects of the role of the financial system in investment, consumption, production, and other real economy variables, thereby triggering large-scale and sustained fluctuations in the economy. From the perspective of the microscopic role mechanism, the Financial Accelerator Theory emphasizes the negative relationship between the endogenous changes and external financing constraints of corporate balance sheets with pro-cyclical characteristics.

Bernanke et al also specifically address the financial accelerator mechanism: the endogenous changes or development of the credit market will expand and enlarge macroeconomic fluctuations or shocks. The key channel of the financial accelerator mechanism is the relationship between “external financing premiums” and “the asset net value of borrowers.” Assuming friction or cost in the credit market, unchanging aggregate demand for financing, and asymmetric information, the standard loan behavior analysis model shows that there is a negative correlation between the external financing premium and the asset net value of borrowers. In general, if the asset net value of borrowers fluctuates positively with the economic cycle (such as corporate profits and asset prices), then the additional costs of external financing will move in the opposite direction of the economic cycle, thereby triggering fluctuations in corporate financing. This is accompanied by volatility in corporate investment, expenditures, and production. Declines in investment expenditures and the level of production will further exacerbate the economic recession of detrimental shocks. Such enlarging effects of initial shocks to the economy through imperfections financial markets are known as the “financial accelerator.”

In today's monetized economy, the stability of a country's currency is closely related to the security of the financial system and the sustainable development of the national economy. Currency security is an indispensable part of financial security. Currency security, conceptually and in terms of level, can be divided into its internal and external aspects. Here, internal currency security refers to maintaining stability in currency purchasing power, mainly embodied in the relative level of domestic prices. External currency security refers to keeping the exchange rate between a country's currency and those of other major international currencies within reasonable limits and the ability to carry out independent, sovereign, and

effective monetary policy. A currency's internal and external security are closely linked and inseparable.

2.1 Monetary Internal Security: Economic Super Monetization, Inflation, and Real Estate Bubbles

2.1.1 Inflation and Real Estate Bubbles in the “Super-Monetized” Economy

Currently, the main problems for the internal security of China's currency are inflation and asset bubbles caused by super-monetization, while mid- to long-term inflationary pressure makes “de-foaming” policy choices for short-term assets difficult and painful.

The “super-monetization” of the Chinese economy is in fact a complex process involving both passive and active components. Demand management policies in short-cycle fluctuations mean currency is often over-issued, while the stage of economic development, the population structure, and the economic growth model determine the passive “super-monetization” of the Chinese economy. In terms of economic growth model, with growth driven by public investment, monetary and fiscal expansion must occur simultaneously to match investment growth. Conversely, aggregate supply growth leads to excessive circulation of base money, driven by funds outstanding for foreign exchange. Super-monetization is a “boost” and “byproduct” of past high-speed economic growth.

Behind this self-sustaining and self-strengthening economic cycle was a unique “currency cycle.” The increase to monetary supply can be expressed using the equation $\Delta M2 = \Delta \text{ funds outstanding for foreign exchange} + \Delta \text{ credit} - \text{fiscal deposits}$. Ignoring fiscal deposits, currency supply mainly goes through two channels: growth in funds outstanding for foreign exchange and credit. The former is massive central bank purchases of exchange from commercial banks using the monetary base.² This has been an important channel for currency growth in recent years. This can be clearly seen in the significant changes to central bank principle asset items since 1993. Central bank swaps of base currency for foreign exchange with commercial banks began with high levels of exports resulting from high levels of investment.

Another important method of adding to currency supply is continued expansion of credit, behind which is high savings growth. High savings growth is a result of changes to the labor force structure accompanying the development of the “dual economy.” China's industrialization and urbanization processes are also a process

²Since 1993, the central bank's main asset classes have undergone significant changes. The proportion of “net foreign assets” to total assets rose from 11.3% in 1993 to 83.1% in 2010, and “other depository corporate debt” fell from 70.3 to 3.7%.

of the transfer of labor, with surplus labor transferring from the low-efficiency agricultural sector to higher-efficiency sectors. This will necessarily produce high savings (Li Yang and Yin Jianfeng 2005). This is because the massive transfer of rural surplus labor to cities will lead to an increase to the marginal productivity of labor and an increase to the proportion of real effective producers to consumers.

Production minus consumption equals savings, so additional producers will result in additional savings. The rapid growth in domestic savings is for one thing due to increased savings in the enterprise and government sectors. Because enterprise and government savings are inclined to exceed those of the household sector, such income redistribution increases the overall savings rate (Aziz and Cui 2007). For another, high savings is due to the contribution of the household sector. The household savings choice is between current and future consumption. The cross-marginal consumption replacement rate is the time cost of money (i.e. the interest rate).

In reality, the correlation between the Chinese household savings rate and interest rates is relatively low. Household savings is to a greater extent a result of the disposal of funds between different types of consumption. Specifically, it squeezes out other spending in favor of savings for housing consumption. Central bank purchases of foreign exchange from commercial banks using base currency constitute the fountainhead of the stream of currency, and credit expansion amplifies the rate of currency flow into the financial system. The two together have led to the “super monetization” of the economy.

From 2003 to 2010, the currency entered a new round of rapid growth, with the average growth rate of M2 reaching 18.8%. During the same time, the average growth rate of all sources of funds at financial institutions was even higher, reaching 20.5%. The proportion of M2 to GDP grew from 154% in 2002 to 181% in 2010. The excessive issuance of currency brought with it inflation and asset bubbles, particularly in real estate. In the second half of 2003, China entered a high-growth period for prices. In 2004, the inflation level rose before declining briefly from 2005 to 2006. Inflationary expectations emerged again after August 2007. From 2008 to 2009, massive amounts of credit were put into circulation in response to the financial crisis, and active currency supply grew above average, followed by a rapid rise in inflation. The domestic consumer price index (CPI) growth reached a high of 6%. Asset price bubbles accompanied inflation, and real estate prices rose vigorously in both large and middle-sized cities.

2.1.2 The Spiral of Credit Expansion, Asset Bubbles, and Inflation

The “super monetization” of the economy is the root cause of asset bubbles and inflation, but in terms of the micro-mechanism, the financial accelerator effect worsens the spiral of credit expansion, asset bubbles, and inflation. The key channel for producing the financial accelerator effect is the negative correlation between the

“external financing premium” and the “net asset value of borrowers.” In other words, the higher the net asset value of micro entities subject to financing restrictions, the lower the external financing premium. More credit will be obtained, and investment, consumption, and output will thereby expand. Thus, in the stage of economic recovery and progressive prosperity, the following cycle will form: optimistic expectations of return on capital cause enterprises to increase expenditures on investment; capital demand growth pushes up asset prices; rising collateral values bring about rising net assets, lowering the external financing premium, and promoting credit expansion.

Meanwhile, bank risk capabilities strengthen based on optimistic expectations, credit standards relax, and credit continues to expand. Real estate is the most important form of collateral. Loose credit policies and rising asset prices raise the value of collateral represented by real estate. Household financing restrictions relax stimulating increased housing-demand-driven consumption growth, further promoting growth in real estate demand and prices.

Therefore, in times of economic boom, the financial accelerator effect is manifested in spiraling expansion of credit, asset prices, and output, and in particular a cycle of “rising real estate prices → looser financing constraints → credit expansion → rising real estate prices.” The financial accelerator effect causes extremely close links among real estate prices, bank credit, and the macro economy. A large number of empirical studies show that real estate prices and bank credit are related in a majority of countries, and a rise in real estate prices will often lead to an expansion of bank credit (Davis and Zhu 2004).

At the same time, credit push was the most important influencing factor among the numerous elements behind intense volatility in housing prices in many countries in the 1980s (Drees and Pazarbasio 1998; Allen and Gale 1999). The rise in the amount of credit and the resulting rise in asset prices also bring expansion to the real economy via the financial accelerator and other supply mechanisms. Real estate prices, bank credit, and the macro economy are closely tied, and maintain a long-term and stable relationship (See Fig. 2.1) (Gerlach and Peng 2005).

Therefore, land transfers are an important financing mechanism in government-led public investment. Real estate bubbles push up the value of land, easing financing constraints on local governments, and becoming the mechanism behind banks issuing vast amounts of new credit to local government financing platforms and rapid growth in local government debt. This can be seen clearly in the significant endogenous nature of monetary supply in the large-scale expansion of infrastructure investment. After 2003, the growth rate of the difference between broad money M2 and the monetary base and the real growth rate of investment showed a high degree of synchronization, showing that large-scale public investment on the part of government followed the overall growth of credit and the money supply.³

³The endogenous nature of money supply is more obvious from 2009 to 2010. The growth of base money was 11.4% in 2009 and 28.7% in 2010, while broad money growth was 28.7% for 2009 and 19.0% for 2010.

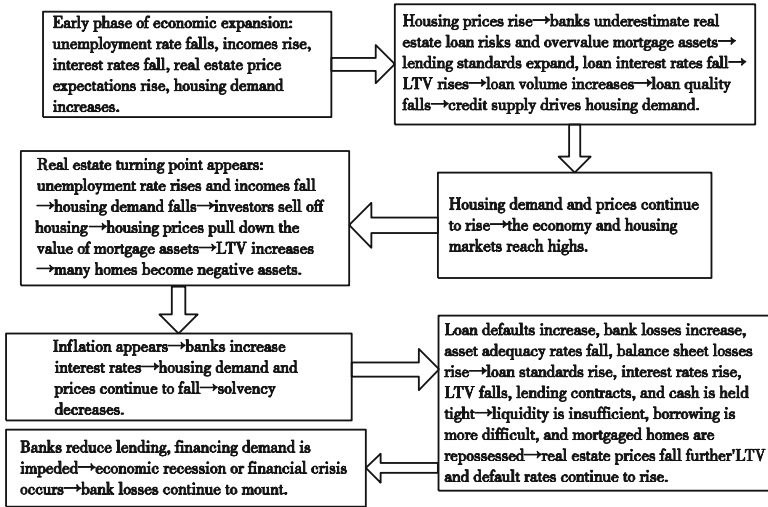


Fig. 2.1 Real estate price fluctuations and the financial accelerator effect (Source: Gerlach 2005)

Looking at the trend, China will face the hidden dangers and risks posed by the financial accelerator effect in a period of economic downturn. Under the influence of the financial accelerator effect, the spiraling expansion of credit, asset prices, and output continues until asset prices rise abnormally, bank credit expands too far, and enterprises become over-leveraged, taking on too much debt. At this point, the economy becomes weaker, and instability accumulates in the economic system. If external shock occurs (even if small), it will result in asset price sensitivity, overreaction, and asset price volatility within the financial system. As structure, behavior, and numerous pro-cyclical factors enter a self-amplifying cycle, the economy becomes prone to continued, sharp decline. For example, at the peak of economic prosperity and expansion, monetary authorities may sharply raise the benchmark interest rate in order to prevent inflation, thereby piercing the real estate bubble, which in turn leads to a fall in real estate prices. The fall in real estate prices must necessarily reduce the value of collateral, and the external financing premium demanded by commercial banks will rise. The supply of credit will contract, and financing constraints on businesses and households will tighten. The continuous contraction of investment, consumption, and aggregate demand will lead to a recession.

Here, there are two effects of falling asset prices, which produce two financial accelerators. In the first, falling asset prices reduce the value of collateral, causing business and family balance sheets to deteriorate, raising the external financing premium, and reducing incremental bank lending. Under credit constraints, investment and consumption fall, and the economy contracts. In the second, falling asset prices cause the quality of bank assets to deteriorate, and capital regulatory constraints, with the capital adequacy ratio at their core, tighten. In order to meet minimum capital requirements, banks tighten credit, sell of riskier assets, and settle

accounts with overly indebted companies. This drives further declines in asset prices, and passive credit contraction sharply shrinks investment, consumption, and output. Thus, financial market turmoil spills over into the real economy and forms a circular effect with fluctuations in the real economy. Economic contraction leads to greater uncertainty in asset prices, exacerbating upheaval in financial markets, and leading to further deterioration of the macro economy. With such intertwined and mutually reinforcing cycles, small exogenous shocks can easily be magnified vastly and become fierce economic volatility and even contraction and recession.

This round of economic growth cycle inherently formed a “double loop” of mutually reinforcing economic and monetary layers. The economic growth model led to “super monetization,” and the super monetization of the economy brought about inflation and asset price bubbles. The latter strengthened under the effect of the financial accelerator, and households and the private sector paid a hidden tax for the real estate bubble and inflation, subsidizing continuous growth and investment through high savings and low real interest rates, maintaining the investment-driven growth model.

Thus, once the current round of economic growth cycle passed through the growth and prosperity stage, the high leverage rates of local governments and enterprises, loan quality in the financial system, and other problems gradually became apparent. It is worth noting that the scale of Chinese local government debt has increased sharply and there are large potential risks. According to data from the National Audit Office, of 10.7 trillion yuan in local government-type debt outstanding at the end of 2010, liabilities for which the government bears responsibility for or guarantees repayment on amounted to 9.05 trillion yuan, accounting for 86 % of disposable income.⁴ In addition, some county-level governments have extremely high debt rates. At the end of 2010, the debt rate for debt for which the government has a responsibility repay exceeded 100 % of the warning line in 78 prefecture-level governments (accounting for 19.9 %) and 99 county-level governments (accounting for 3.56 %). Nearly 80 % of local government debt is bank debt. On the basis of the ratio of platform company cash to cover loan capital and interest, local government semi-covered and uncovered loans totaled 1.77 trillion yuan, adding approximately 3.15 trillion yuan in risky assets to the banking industry. This affects bank asset quality through capital consumption and provisions.⁵

At present, Chinese local governments and enterprises are in a state of high leverage and will deleverage in a period of economic downturn. This will add further pressure to asset bubbles and economic downturn. From a supply

⁴ At the end of 2010, local fiscal revenue was 4 trillion yuan nationwide. Adding tax rebates and transfer payments from the central government of 3.2 trillion yuan, total local fiscal revenue amounted to 7.3 trillion yuan. There was also an additional 3.3 trillion yuan in local government fund revenue.

⁵ Source: Calculated based on CBRC data from November 2010.

perspective, Chinese economic growth faces downturns in the labor participation rate and population dividend, leading to lower economic growth rates. China's working age population will enter a zone of low long-term growth in the future, and zero growth or even negative growth in the labor force will reduce the employment growth rate.

Moreover, higher capital and labor costs are due to the large-scale investment brought on a by credit expansion supported by high domestic savings. With a relative shortage of labor supply, real wage increases lead to a decline in the return on capital, leading to capital accumulation and a decrease in its contribution rate. In addition, the weakening institutional dividend brought by reform will cause the total labor productivity growth rate to slow. These two factors will become the main factors affecting reduced labor productivity. Therefore, China will face a "double slowdown" in labor force growth and labor productivity growth, which is bound to push down the potential economic growth rate.

With the decline in the potential economic growth rate, monetary growth will enter a slowdown period. An important factor is changes to the labor structure. Due to the slowdown in sectorial transfers of Chinese labor, changes to and even an inflection point in the proportion of producers to consumers will lead to a decline in the savings rate. The shift from investment to consumption as the driver of the economy will similarly lead to a lower savings rate, and there will be fundamental changes to the mid- and long-term structure of continued high growth in currency supply. The resulting slowdown in monetary growth and tightening of the liquidity environment will further add to the risk of bursting asset price bubbles. In view of this, in terms of domestic currency security, the selection of control policies and measures related to asset bubbles must be made very carefully from the perspective of the financial accelerator effect during economic downturn.

2.2 External Monetary Security: Currency Mismatch, Capital Flight, and Expectations of Exchange Rate Depreciation

At present, the main problems facing China's external monetary security are capital flight and expectations of yuan depreciation. Currency depreciation and large-scale capital flight played out during the subprime crisis of 2008. In the second half of 2011, the worsening European debt crisis increased global financial risk aversion, and European capital returned to its parent companies. This led to currency depreciation and international capital flight in emerging market economies. The outward flow of short-term international capital set off expectations for yuan depreciation.

In November 2011, the yuan declined continuously against the dollar and even made a sudden stop. At the same time, foreign exchange growth slowed, even experience the first negative growth since 2008. One could say that China's capital

flight and expectations of exchange rate depreciation were mainly caused by the European debt crisis and other external shocks, and there was no basis for exchange rate depreciation. But it is worth noting that if the future process of economic rebalancing and a downstream movement of the center of Chinese economic operations are accompanied by large-scale bursting of asset prices, there will be a reversal of the trend of yuan value, and the sharp depreciation of the exchange rate would induce a financial accelerator effect in the open economy, producing an even greater impact on Chinese finance and currency.

Historically, during the Asian Financial Crisis, countries like Thailand, the Philippines, Malaysia, Singapore, South Korea, and Indonesia devalued their currencies, and their economies collapsed, demonstrating that currency devaluation does not necessarily result in output expansion through the “expenditure-conversion effect” of the traditional Mundell-Fleming Model, or other, stronger, constricting forces outside these effect have a greater influence. This effect is a typical financial accelerator effect of devaluation leading to balance sheet deterioration. In an open economy, the financial accelerator effect is particularly evident in emerging markets because currency mismatches prevail in emerging market countries. With large currency mismatches, differences in asset and debt currency type structures in sovereign countries and public and private sector balance sheets will be very sensitive to exchange rate changes.

Here, we describe negative external shocks through increasing risk premiums.⁶ Under increasing risk premiums, if existing interest and exchange rates are maintained, foreign currency will flow out of the country, leading to exchange rate devaluation (expectations). In emerging developing countries with currency mismatches, some or all foreign debt is denominated in foreign currency, while revenue is calculated in the country’s currency. Exchange rate devaluation will increase the real value of debt, reduce the net asset value of the balance sheet, and increase the debt-asset ratio. A country’s balance sheet is an important symbol of its economic strength and solvency, and decreasing net asset values add to foreign demands for a risk premium leading to a contraction in foreign lending and functioning to shrink investment and output.

With continued economic deterioration, the “self-fulfilling prophecy” of currency depreciation expectations accelerates the fall of the currency, pushing forward the dispersion and spread of the initial negative shock. Under the dual roles of currency mismatch and the devaluation of the country’s currency, net asset values in the private and public sectors fall, and shrinking domestic credit and foreign lending lead to declines in investment and output. Meanwhile, currency depreciation significantly increases the real value of private and public sector debt, and borrower countries can easily experience debt crisis due to insufficient solvency. In addition, currency mismatch will also trigger maturity mismatch and cause it to

⁶ Using increases to the risk premium to portray adverse external shocks. The following situation also applies to currency devaluation caused by real shocks such as changes to consumer preferences and nominal shocks such as increasing foreign interest rates.

deteriorate, enabling tighter repayment constraints, thereby exacerbating investment contraction and output volatility.

Of course, currency mismatch in developing countries also leads to a loss of monetary policy independence, producing a passive financial accelerator effect. For example, when the international economic recession caused foreign demand to shrink, the normal response for monetary policy is to reduce interest rates to stimulate domestic demand and allow moderate depreciation of the local currency in order to partition the country from the effects of the international economic recession. However, in the presence of currency mismatch, lowering domestic interest rates will result in devaluation of the currency, and devaluation will lead to the aforementioned financial accelerator effect. Raising interest rates in order to maintain the currency exchange rate will increase the financial burden on businesses, resulting in a financial accelerator effect in a closed economy, and economic recession may become more serious.

Thus, in emerging developing countries with currency mismatches, a double financial accelerator effect will be produced, increasing the likelihood of financial crisis. Since the 1960s and 1970s, emerging and developing countries have experienced multiple currency and financial crises. Studies show that the financial accelerator mechanism exists in developing countries in times of crisis. Elekdag et al. (2006) state that during the Asian financial crisis, the external financing premium demanded by foreign capital was closely related to the net value of capital ratio. The external financing premium, which correlates to the balance sheet, demonstrates the existence of the financial accelerator mechanism. The financial accelerator effect explains the halving of South Korea's overall economic activity during the crisis.

At present, although China has accumulated more than US\$ 3 trillion in foreign exchange reserves, there is still a serious currency mismatch in the country's foreign assets and liabilities structure. Most of China's assets are in the form of sovereign debt, while its liabilities are perennial foreign direct investment and capital inflows for the purchase of yuan assets. Therefore, although the public sector is a net external creditor, and the private sector has accumulated nearly US \$ 1.5 trillion in foreign debt, these debts correspond to yuan assets, of which huge surpluses have been accumulated during previous asset bubbles. If the asset bubble bursts or capital expectations reverse, the transition of the private sector from yuan assets to foreign exchange assets will lead to expanded capital outflows and currency depreciation, which will impact the overall economy via the financial accelerator effect.

In addition, the financial accelerator effect is positively correlated with the debt/net worth ratio. China is currently in an economic stage of cumulative high leverage, and the economic and financial systems are relatively fragile. If internal and external shocks combine, the impact will be even more profound. Thus, in the medium and long-term, economic rebalancing, adjustment to the demand structure, and weakening external demand caused by debt crisis will reduce, stabilize, or even reverse the current account surplus. This is an external factor of tight currency liquidity in the broader environment. Recent slow growth, and occasional negative

growth, in foreign exchange also illustrates this point. If bursting asset bubbles accompany a declining economic growth rate, capital expectations will change completely, and the financial accelerator effect brought on by currency mismatch will enlarge the shock of capital outflows and exchange rate depreciation on finance and the economy. This is a very interesting and important issue in the external security of China's currency in the future.

2.3 Suggestions for Safeguarding the Security of China's Currency

First, the government should focus on maintaining a stable currency value. The biggest challenge facing China's monetary security is asset bubble problems in the process of decelerating economic and monetary growth. In the process of deflating asset bubbles, China must also balance currency stability, financial stability, and economic stability. For some time, China's monetary policy has had an overabundance of goals. When dealing with inflation, it has had to take economic growth into account. When boosting in the economy, it has had to scruple with real estate recovery. Such contradictions put policy in an awkward position.

In fact, China's central bank cannot be like the Fed or the European Central Bank (ECB), which have the main objective of monetary policy focused on inflation. This is determined by the unitary nature of China's policy measures and incomplete market-oriented reforms. Therefore, monetary policy in the short term must take economic growth, asset bubbles, and other objectives into account. But in terms of the direction of development, the central bank should be given more independence and fewer goals. Regulation of real estate and other asset bubbles should be returned to the market track.

Second, China should establish flexible monetary rules for responding to asset prices. Rising asset prices stimulate aggregate demand through the financial accelerator effect, and falling asset prices constrict aggregate demand. Therefore, the Chinese central bank should pay close attention to the role of asset price increases (and decreases) in the expansion (or contraction) of the economy and implement counter-cyclical regulatory policies aimed at stabilizing aggregate demand. Automatically responding monetary policies not only serve to stabilize the overall economy but can also stabilize financial markets.

In addition, the central bank should pay close attention to the expansionary effect of changes in asset prices on demand, as well as to credit growth, which is closely related to changes in aggregate demand and price levels. When asset price fluctuations have not deviated from fundamentals yet still set off large expansions in credit and growth in aggregate demand and therefore bring about inflationary pressures, the central bank should not react to changes in asset prices. But when asset price changes form inflationary pressure, the central bank should actively adjust monetary policy to head off the formation of such pressure. Conversely, if

monetary policy makes no response to expansionary or contractionary pressures, or strengthens such a response, policy controls will produce sustained, damaging effects on the economy.

Third, China should maintain the flexibility and farsightedness of monetary policy. The presence of the financial accelerator effect makes currency more likely to be endogenous, increasing the complexity of monetary policy. At the same time, the financial accelerator also leads to asymmetrical and non-linear monetary policy, impacting the effectiveness of monetary policy. Therefore, in the implementation process for monetary policy, China must increase flexibility and farsightedness in order to hedge against to the amplifying effect of the financial accelerator mechanism on economic volatility.

For monetary policy to stabilize the role of the financial accelerator, China must first effectively control inflation through "inflation targeting." This is because when inflation is stable and the expectations of micro entities are stable, the stickiness of nominal variables has a smaller driving effect on the financial accelerator. Second, the formation and implementation of monetary policy must take into account the objective existence of the financial accelerator effect. Reasonable policy tools should be chosen and adjustments made on the proper scale and at the right moment by judging and predicting the credit market response to policy operations in order to eliminate issues of uncertainty the financial accelerator effect may pose and effectively strengthen the rationality, stability, and predictability of macro controls. Third, the monetary policy implementation process must take the asymmetric and non-linear effects of the financial accelerator into account. In the implementation of tight monetary policy, China must focus on solving financing difficulties for small and mid-sized companies. In times of economic recession, China must implement stronger expansionary policies and other accompanying policies. Finally, in order to better achieve the regulatory objective of price stability, the central bank must pay attention to the effect of capital adequacy regulation on the economic cycle. In a banking system with inadequate capital, regulators should make a stronger response to disturbances so monetary policy can stabilize the financial accelerator effect under capital adequacy supervision.

Fourth, China should bring economic growth, monetary stability, and financial stability into a unified goal framework. The financial accelerator effect shows that there is an inherent logical unity to monetary stability, financial stability, and economic stability. Thus, a simple anti-inflationary pursuit is dangerous. Rather, coordinated consideration of economic growth, monetary stability, and financial stability is necessary. For example, in the economic expansion stage, the level of inflation in the entire economy continuously increases, but at the same time, because of the financial accelerator effect, the economy is constantly on the verge of being in an over-indebted state, and raising interest rates and other strong deflationary processes will have a greater negative impact. This is because higher interest rates will worsen cash flow for businesses and households, lower expected returns for financial institutions, and pierce asset price bubbles, leading to financial market volatility. This will have an echo effect on the economy through the financial accelerator, leading to volatility in the economy or even recession.

Therefore, before beginning anti-inflationary programs, the central bank should pay close attention to the state of finance and the financial situations of economic entities. The financial accelerator effect indicates that monetary stability and financial stability are interwoven and mutually strengthening policy objective orientations. Pursuing monetary stability must necessarily take financial stability into account, and vice versa, otherwise the consequences will be catastrophic. This also means that the central bank must be very careful with its anti-inflation control policies. Specifically, monetary policy responses to asset price fluctuations and inflation should fully consider debt accumulation factors and the degree of leverage, because the credit expansion and contraction caused by asset price fluctuations will affect fluctuations in the economic cycle. The Chinese central bank, with its short-term pursuit of monetary stability, should take full account of the potential adverse long-term effects of asset price fluctuations on credit and financial and economic stability.

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Chapter 3

“Herd Behavior” in the Commercial Bank Credit Market

Herd behavior has become an increasingly prominent feature of credit in Chinese commercial banking, not only harming credit quality and lowering allocative efficiency of credit, but also exacerbating imbalances in regional economic development and hindering the functioning of the monetary transmission mechanism. Given that credit herd behavior among Chinese banks is a convergence of multiple, intertwining factors including information asymmetry, considerations of manager reputation and remuneration, administrative interference and policy orientation, and a trend toward uniformity in bank risk outlook and market positioning, in order to weaken credit herd behavior among commercial banks, China should improve supervision of bank credit, promote the sharing of credit-related information, improve the social credit supervision and guarantee system, and guide commercial banks to move forward with management changes.

3.1 The Expression and Hidden Dangers of Credit Herd Behavior

3.1.1 *Herd Behavior and Its Expression in the Chinese Credit Market*

Herd behavior, also known as crowd behavior, refers to the interrelationship among individual behavioral patterns, which result in the overall population making suboptimal decisions (Devenow and Welch 1996). Academic study of herd behavior is mostly concentrated on explorations of the capital market, with little literature exploring herd behavior in bank credit. However, since the beginning of the twenty-first century, academic literature has gradually revealed the presence of herd behavior in commercial bank lending (Shen and Chen 2008). Rötheli (2001) uses

time-series analysis to investigate the dynamic correlations among the lending patterns of three large Swiss banks from 1987 to 1996. The results show that the three banks each responded to changes in the lending behavior of their competitors. Moreover, the degree of response of the followers had a greater impact on the overall credit cycle compared to the behavior of the bank initiating the change. In recent years, with intensifying competition, herd behavior among Chinese banks has been prominent, including competition for high-quality clients using unscrupulous methods, and lending primarily to large, state-owned enterprises. Herd behavior has mainly been expressed in the following areas.

Geographical Concentration

In terms of the geographical distribution of loans, there is a trend of focus on eastern regions and large cities. This trend has been particularly evident since the canceling of loan size restrictions in 1998 because key enterprises with good results, large enterprises, and listed companies are mostly concentrated in center cities and economically developed eastern coastal regions. With the centralization of lending institutions and the handover of credit management authority, lending began to shift to large cities, center cities, and eastern coastal regions. At the end of 2009, domestic and foreign currency lending (not including commercial bank headquarters direct loan data) grew by 5.31 trillion yuan (56.7% of total growth) in the eastern region, 1.46 trillion yuan (15.6% of total growth) in the central region, 1.94 trillion yuan (20.7% of total growth) in the western region, and 660 billion yuan (7% of total growth) in the northeastern region. In terms of outstanding loans, the eastern region accounted for 34.59 trillion yuan (59.8%), the central region for 8.8 trillion yuan (15.2%), the western region for 10.24 (17.7%), and the northeastern region for 4.21 trillion yuan (7.3%). Whether in terms of new lending or outstanding balance, the gap between the east and central, western, and northeastern regions is clear.

Industry Concentration

In terms of the distribution of loans among industries, lending is concentrated in infrastructure construction, real estate, and some monopoly-type industries. In 2009, loans from financial institutions mainly went toward the infrastructure sector (36.31% of new lending), leasing and business services (9.48% of new lending), and real estate (8.9% of new lending). Large, state-owned banks and other small banks generally invested in the same industries, exhibiting classic group multi-lending characteristics.

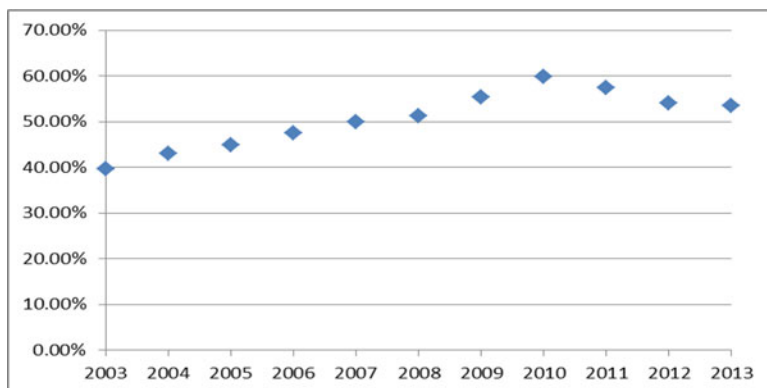


Fig. 3.1 Proportion of long-term lending 2003–2013 (Source: People’s Bank of China Financial Institutions Domestic and Foreign Currency Credit Balance Sheet)

Similarity of Loan Maturities

In terms of loan maturity structure, lending from banking industry financial institutions tends to be long-term. From 2003 to 2013, the growth rate of medium and long-term lending exceeded that of short-term lending. Long-term lending’s proportion also increased from 39.61 % in 2003 to 59.92 % in 2010 before falling slightly to 53.55 % in 2013 (see Fig. 3.1). Financial institutions clearly prefer long-term loans. In certain locations, the increase in long-term lending can be astonishing. In Jinan, for example, long-term loans accounted for 91.9 % of new lending from January to September 2009.

Customer Concentration

In terms of investment orientation, the focus of commercial banks on government-backed projects and large, state-owned enterprises remains unchanged, and the habit of “building up large accounts” remains unchanged or has worsened. Looking at the first half of 2009, among 14 listed banks, eight had their “proportion of loans to a single large customer” increase, and 12 had their “proportion of loans to their ten largest customers” increase. For Industrial Bank and Minsheng Bank, these two indicators nearly reached the regulatory red line. Zhu Lifei, president of Industrial and Commercial Bank of China’s Liaoning Branch, said bluntly, “Some government financing platforms and large enterprises have more money than they can use.”¹ This is in stark contrast to loans to small and medium enterprises of 3.4 billion yuan in 2009, accounting for only 35 % of new loans.

¹ Source: “Yinhang ‘lei dahu’ xianxiang jiaju jingying jigou reng bu sheying zhongxiao qiye [“Building Up Large Clients’ Still Does Not Suit Small Businesses],” June 22, 2009, “Jingji cankao bao.”

3.1.2 The Hidden Dangers of Credit Herd Behavior

For a bank, following other banks and serving the same customer base is not necessarily irrational or inefficient. Regional concentration of loans is also conducive to raising the allocation efficiency of limited credit resources in within a reasonable range (People’s Bank of China Hefei Center Branch Task Force 2005). However, for the overall industry, credit herd behavior produces blind obedience in loan orientation. A decline in bank asset quality follows, along with excessive similarity in the recipients of credit, inevitably leading to higher potential systemic risks in the banking industry. Specifically, the hidden dangers of bank credit herd behavior are mainly expressed in the following areas.

Asset Quality Deterioration

Loan concentration is bound to increase the accumulation of risk in the entire banking industry. If the recipients of credit experience solvency issues, financial crisis will ensue. A survey of 51 Taiwanese banks from 1993 to 2005 by Shen and Chen (2008) shows that there is a correlation between credit herd behavior and non-performing loan (NPL) ratios: the NPL ratio rises significantly two or three periods after the occurrence of herd behavior. More severe herd behavior results in more serious deterioration of asset quality and decline in profitability. In 2009, BCT Consulting studied nine enterprise groups in Shaoxing, Zhejiang Province, including Zhanwang Group, Jinglong Holdings, and Hualian Sanxin, involving 31 banking institutions and credit funds of some 19 billion yuan. But these companies were all experiencing falling demand in external markets. Coupled with factors such as poor cash flow from blind diversification of investments, these companies all experienced operating risks, and to date, the banks have been unable to recover their loans (Han Tingting 2009). Deteriorating credit asset quality, coupled with shrinking space for bank profits resulting from blind competition for large clients, will increase the vulnerability of the entire banking system, which in turn jeopardizes social and economic security.

Falling Efficiency of Credit Resources Allocation

Credit herd behavior results in an inhibition of credit for SMEs and a crowding of credit for large enterprises, increasing the ratio of mismatched credit resources and thereby reducing the effectiveness of loan use. On the one hand, SMEs urgently requiring credit have a difficult time obtaining bank loans, restricting their development and survival. On the other hand, some enterprises take on too many loans, which increases financial cost and can also result in overinvestment, overcapacity, and waste of resources. It also increases the incentives for enterprises to engage in high-risk investments, which can result in inflated asset market prices and asset

bubbles (Song Wenchang and Tong Shiqing 2009). The problem can be seen in the blind expansion and redundant construction in industries traditionally plagued with excess capacity such as steel and cement, as well as in new industries such as wind power equipment and polysilicon to which companies have swarmed. Excessive concentration of credit with a large amount of related loans can lead to banking crises.

Unbalanced Regional Economic Development

The geographic concentration of credit has widened the gap in credit funds allocation among regions, further exacerbating contradictions in the capital supply and demand structure, and harming the coordinated development of regional economies. On the one hand, it can easily lead to economic overheating in some areas. Duplicate construction and inefficient investment not only waste social resources, but also harm the sustainable development of local economies. On the other hand, backward regions, including county-level economies, cannot obtain funding support, further enlarging regional disparities and ultimately impacting the overall economy.

Hampered Operation of the Monetary Transmission Mechanism

First, the execution of monetary policy is weakened. As the main transmission intermediary for monetary policy, the excessive concentration of commercial bank credit in a small number of large enterprises and large projects will inevitably impact and obstruct the signal transduction of monetary policy, greatly reducing the effectiveness of monetary policy. Second, the money multiplier effect is significantly reduced. The concentrated flow of credit funds toward a small number of competitive enterprises results in a significant amount of money flowing into the stock market and real estate market seeking higher returns, causing continued diversion of household savings deposits. As a result, there will be a “leak” in the money supply. Despite the central bank injecting a large amount of base money into commercial banks, the result is that a significant amount of corporate funds enter the stock market, leaking out of the banking system. The slowdown in funding source growth in the banking system restricts loan expansion capabilities, reducing the money multiplier effect.

3.2 Causes of Credit Herd Behavior in the Chinese Banking System

3.2.1 *Information Asymmetry in Credit Transactions*

In the case of widespread asymmetric information between banks and businesses, banks often cannot directly observe the borrower's risk profile, so in addition to extrapolating based on empirical data, they often obtain further information on the true risks through the actions of other banks regarding borrowers and then choose their own optimal action. Whether a bank accepts or rejects a borrower, other banks will use the loan decision as an important basis for their own judgments and decisions on the riskiness of borrowers. In addition, information asymmetry in credit transactions means banks, with limited rationality, cannot fully understand the information of borrower companies. In order to identify good borrowers, banks must pay higher transaction costs (Stiglitz and Weiss 1981). Because information asymmetry is high in SMEs, emerging industries, and companies in underdeveloped areas, and post-loan oversight costs are relatively high (Williamson 1987), banks are more inclined to ration credit to these companies, extending loans instead to large companies, strong industries, and regions with prominent geographical and resource advantages.

In China, due to the historical interdependence of banks and local governments, state-owned banks are inclined to make loans to government-related infrastructure projects and to local enterprises in monopoly positions. With information asymmetry, small banks cannot grasp sufficient information to make their own rational judgments, so they often assume large banks are able to obtain more information than they are. Hence, small banks will overlook their own private, valuable information and yield to group pressure to follow the lending choices of large banks. The imitation of the lending behavior of state-owned banks by many Chinese joint-stock banks and banks dominated by non-state-owned capital is a result of herd behavior. This herd behavior leads to the excessive concentration of lending (Chen Hongyan and Zhang Guixia 2007). To some extent, the concentration of bank lending can reduce bank oversight and review costs. On the one hand, multiple banks conducting oversight helps to prevent business ethics risks. On the other hand, industries and enterprises where loans are concentrated receive vertical oversight from government. Governments can rely on political force to encourage enterprise operations. Multi-pronged oversight and vertical oversight form an oversight network, reducing bank oversight costs and risk for any single bank.

3.2.2 Bank Manager Considerations Based on Reputation and Compensation

From an economic point of view, the most direct cause of such behavior is the receipt of some kind of reward. A direct cause of herd behavior is the receipt of payment or an enhanced reputation. Due to the special nature of China's financial regulatory system, commercial bank lending decision-makers are more concerned than foreign bank managers with their own reputations. Lending decision-makers often overlook private information and pay more attention to the lending decisions of others. By doing so, a manager can at least maintain average performance without undermining his own reputation. Even if the lending decision is a failure, because it is difficult to punish a crowd, in a highly competitive and protected environment, herd behavior can cause authorities to dole out lighter punishment, allowing even the worst bank to survive (Acharya 2001; Acharya and Yorulmazer 2002; Uchida and Nakagawa 2004).

Chinese university credit herd behavior is an even better example. Commercial bank lending decision-makers receive no punishment for being unable to recover university loans on schedule. Thus, bank lending decision-makers imitate the decisions of others, ignoring their own rich, private information. Although this behavior is inefficient from a social point of view, it is rational from the point of view of decision-makers concerned with their own reputations (Scharfstein and Stein 1990). The Chinese commercial bank credit mechanism seeks "zero risk" and the "two one hundreds" (100% on-time repayment of principal and 100% on-time recovery of loans) exacerbates fears among credit officers of loss of reputation. The majority of low-level loan officers consider only two questions—"Should I make this loan?" and "Will I get the money back?"²—and are therefore inclined to imitate peers.

3.2.3 Administrative Interference and Policy Orientation

The industry development plan formulated by the government is important institutional information for banks. This information reduces exogenous uncertainty faced by banks and enterprises in credit decisions. Projects conforming to the intentions and policies of central and local governments can obtain government policy support. This leads to competition among commercial banks to concentrate lending in the infrastructure, leasing, business services, and real estate industries. Thus, long-term, stable, coordinated bank-enterprise relationships act to transmit

² Source: "Yeji yu zhengce shuangzhong zhongya jiceng xindaiyuan biantong 'lei dahu'" [Performance Targets and Policy Work Together to Pressure Loan Officers to 'Build up Large Clients'], July 18, 2009, 21 shiji jingji baodao 21.

government intent, and they provide an important channel for the exercise of government influence. By complying with the demands of government industrial policy and issuing loans in accordance with government policy orientation, banks also reduce the cost of collecting and managing information, while also lowering external uncertainty in credit transactions.

To a certain extent, the design of the financial oversight segment also contributes to bank credit herd behavior. For one thing, current financial risk oversight emphasizes “pulling down” non-performing loans while weakening oversight of commercial bank loan making. For another, sufficient attention cannot be paid to the administration of credit market order, and disorderly competition for loans has not been fundamentally resolved. Insufficient oversight of intersecting, overlapping loans is another cause of credit herd behavior. In addition, because China still imposes a lower limit on loan interest rates, the lowest interest rate for ordinary loans (i.e. those other than personal housing loans) is 90 % of the base lending interest rate published by the People’s Bank of China. Banks will inevitably compete for low-risk customers to expand lending, leading to an excess supply of loans to such customers.

3.2.4 The Bank Risk Concept and Market Positioning Convergence

Currently, some Chinese commercial banks are extremely averse to short-term risks when screening loans. This is for a number of reasons. First, after the Asian financial crisis, the government strengthened accountability for non-performing loans (NPLs), and regulators required banks to achieve “double declines” annually in the amount of NPLs and the NPL ratio. Facing increasing pressure for “double declines” in NPLs, banks ultimately became highly averse to short-term risk. Second, the government still enjoys the power to appoint the majority of the personnel of commercial banks. In consideration of risk prevention, bank executives are rotated often. With short tenures and a high degree of movement, short-term behavior is difficult to avoid. Third, once a bank lists publicly, it faces significant profit pressure. In the case of short-term risk aversion and pursuit of short-term profits, banks will inevitably prefer to make loans with little short-term risk and high-short-term reward, such as for large-scale projects, superior enterprises, and long-term loans.

In addition, the trend toward uniformity in commercial bank positioning also exacerbates credit herd behavior. At present, China’s large commercial banks are still in a “period of unclear strategy” (Liu Yonggang 2009), lacking clear positioning and development strategies. Bank positioning is often similar with only minor differences: all stress accelerating the development and proportion of retail business; all highlight the importance of business in center cities; all seek to achieve integrated management; all are making big plans for international operations. There

is serious homogenized competition. Former China Banking Regulatory Commission (CBRC) Chairman Liu Mingkang (2009) stated, "For some time, there has been a trend toward uniformity in business operations and risk management methods in China's banking sector."

In addition, internal management reforms at China's commercial banks in recent years have actually fueled credit herd behavior. For one thing, in order to control risks, banks have established centralized credit management models, collecting loan management authority on a large scale. The scale of direct loans from headquarters and provincial branches has expanded continuously. Below the provincial branch level, institutions have no approval authority over project loans or loans to new enterprise customers, only over short-term liquidity loans, which are for small amounts of money. Most primary level banks, especially county branches, have no lending authority. On the other hand, with intensive management reforms, the pace of removal and merging of bank lending outlets has quickened in the institutional restructuring of banks. In particular, in the removal and merging of loan outlets in economically undeveloped regions, funds have been transferred from less developed areas to developed areas.

3.3 Suggestions for Weakening Herd Behavior Among China's Banks

3.3.1 Improve Oversight of Bank Credit

First, the focus of credit oversight should shift from a simple emphasis on "double declines" in NPLs to dual emphasis on the proportion of NPLs and the loan structure in order to push commercial banks to shift their concept of risk. While strictly inspecting non-standard loans at commercial banks, reducing conditions for lending, and reducing blind lending behavior, the bank lending structure should be rationally adjusted, with guiding requirements on the scale and proportion of SME loans put in place. An early warning system for industry risk should be established to quickly guide financial institutions to respond to industry changes with farsightedness. While preventing lending toward blind investments, low-standard expansion, and projects not conforming to national industrial policies and market access conditions, commercial banks should be led to lend money to efficient industries and companies with large markets that are able to increase employment. The People's Bank of China, CBRC, and its branch institutions should work together to calculate the debt situations of local government financing platform companies in order to strictly limit loans to platform companies with falsified investments, imperfect governance structures, internal controls, risk management, and capital management and operations systems. Excessive expansion of local government credit should be prevented as it poses a systemic risk to commercial banks.

Second, management of loan concentration should be improved. Firstly, starting with the essential characteristics of the loan, financial business providing specific capital and specific return (including traditional loans, discounting, overdrafts, trade finance, and repurchase-type factoring) should be included in the loan scope, and regulators should be endowed with the authority to freely consider and decide the scope of loan expansion in accordance with the practice of business innovation in order to prevent banks from finding other channels through which to make “loans” to the same customer. Secondly, comprehensive consideration should be made of customer equity associations, management associations, contractual associations, and actual business associations and specific standards formulated for associated customers and groups. Associated customers and groups should be included in the scope of loan concentration restrictions. Either identical or non-identical loan concentration restriction standards can be set for single customers and associated groups and customers. Thirdly, oversight and management of large accounts should be strengthened and a credit risk warning system should be established in order to prevent excessive competition during the lending process.

Third, while strengthening guidance of lending orientation, rationally utilizing refinancing funds, utilizing rediscount measures, and guiding commercial banks to optimize their credit structures, management and guidance of loan pricing should be further improved. When conditions are ripe, interest rate controls should be relaxed so that commercial bank loan pricing is closer to market supply and demand. Banks should be encouraged to broaden their customer scope and expand the coverage of lending.

3.3.2 Increase Credit Information Disclosure

An information sharing mechanism should be built, sources of information widened, and the degree of information insufficiency and asymmetry reduced so that approval decision-makers can obtain ample, complete, and accurate external information to support decisions. First, information disclosure for indicators including the degree of industry credit concentration, the degree of regional credit concentration, and the degree of customer credit concentration to provide decision-making information to commercial banks should be improved to facilitate them taking the initiative to change the flow of credit. Second, an information disclosure system should be formulated for weak industries and enterprises, in particular a nationally shared SME credit system, to reduce information acquisition and handling costs related to these industries and companies for banks. Through institutional design, credit transaction uncertainty for commercial banks should be reduced, guiding the direction of commercial bank credit funds. To this end, China should strengthen the construction of the information system and resource sharing platform, further improve the credit registration and consulting system, and implement sustained, ongoing risk oversight of credit investment orientation. The experiences of Italy and Spain are worth studying. By establishing an information system throughout all

of society and allowing commercial banks and the central bank to network over borrower information, these countries facilitate bank checks of customer credit. This makes the most difficult to obtain customer credit information transparent, thereby greatly mitigating information asymmetry. As a result, in these two countries, SMEs achieve equal status with large companies when attempting to obtain credit.

3.3.3 Strengthen the Social Credit Oversight and Guarantee System

According to the equilibrium theory of credit rationing, information asymmetry and lack of collateral are the main reasons for insufficient bank lending to SMEs. Establishing a sound social credit guarantee system and social credit system can effectively resolve these problems. A sound social credit guarantee system should be established. In particular, credit guarantee institutions specializing in servicing SMEs should be established to perform the guarantee functions of risk dispersion, loss sharing, and economic compensation. This would effectively solve the problem of insufficient collateral for SMEs. In particular, China should establish a government-invested SME guarantee company to indirectly lead market capital to support SMEs and change the way lenders feel about SMEs. This would also mitigate loan concentration among large, state-owned banks, as well as the herd mentality of small banks following large banks. To establish a sound social credit system requires giving full play to financial intermediary services such as accounting, auditing, and legal services in credit system construction. Using legal, institutional, and economic means, China should build sincerity and honesty in intermediary services and enhance the transparency of corporate information disclosure.

3.3.4 Guide Commercial Banks to Promote Management Change

First, commercial banks should be guided to establish proper market positioning. Each bank should take full account of its own characteristics and advantages, formulate development strategies, operating targets, and market positioning in line with its own characteristics and advantages, and form a competitive landscape where each emphasizes its own characteristics. In credit approval, banks should seek their own comparative advantages based on rational analysis and avoid being coaxed into action and making blind decisions.

Second, the remuneration structure of senior management should be corrected. In measuring performance, the reasonableness of the loan structure, degree of

support to SMEs, and other indicators should be surveyed comprehensively in order to encourage the diversification of the orientation of bank credit funds and reduce overall risk to the banking industry. At the same time, a complete incentive mechanism combining material and spiritual incentives should be established. The system should offer promotions, compensation, and benefits, but should not overlook awards, honorary titles, and other forms of encouragement.

Third, a scientific and efficient credit management system should be established. First, the comprehensive risk management system for the banking sector should be improved, paying particular attention to improving the credit risk management and risk pricing capabilities in order to prevent banks from enlarging credit risks and market risks in order to resolve excess liquidity. Second, a credit risk warning system should be established for industries and customers of high credit concentration in accordance with national macro control requirements. Periodic analysis and assessment of customers of high credit concentration should be carried out, and banks should promptly exit from ineffective or low-efficiency credit markets. Third, a credit risk monitoring, analysis, and warning mechanism should be established to closely monitor the financial situations of companies and establish a comprehensive risk management mechanism for corporate cash flow, document flow, cargo transport, warehousing, marketing, and other areas. Fourth, the loan pricing mechanism should be improved and excessive credit concentration avoided through the risk premium, preferred credit entities, and other methods.

Finally, banks should be encouraged to develop technological innovation in credit and strengthen credit services for SMEs. Credit technology mainly includes the unique composition of information sources, screening and contracting policies and procedures, loan contract structure, and oversight strategies and mechanisms. It can be divided into financial report lending, small business credit scores, asset-backed loans, fixed asset loans, factoring, leasing and relational lending, and others (Berger and Udell 2002). Studies show that technological innovation in credit enables large banks to replace the strict pre-loan screening and high-cost post-loan oversight of the past with frequent oversight and timely intervention during the loan process, and then make up for weaknesses in the collection and transmission of SME “soft information.” It is conducive to solving the problem of asymmetry of information between banks and enterprises, and it has an irreplaceable role in terms of easing financial difficulties for SMEs (Petersen and Rajan 2002; Liang Di and Zhang Jie 2007).

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Chapter 4

The Risks and Hidden Security Dangers in China's Stock Market

In China's financial system, the risks and hidden security dangers in the capital markets and the stock market in particular not only prevent investors from sharing the fruits of economic development, but also compound to result in the evaporation of wealth. In the context of economic globalization, with the opening of financial markets, China's asset markets will face an even grimmer financial security situation. Promoting the development of China's stock market into a mature and developed capital market will obviously require quality and quantity, and particularly a significant improvement in quality. Expanding the size of the market alone can only result in making the market bigger, not of higher quality (nor can reducing the size of the market necessarily achieve better quality). Therefore, analyzing the endogenous risks and hidden security dangers in the development of China's stock market is undoubtedly an important starting point for improving the quality and financial security of China's stock market. It is also an important prerequisite for promoting the healthy development of the stock market.

4.1 Stock Market Risk Characterization and Comparison

The development of China's stock market has been accompanied by round after round of sharp rises and falls. On December 19, 1990, the Chinese stock market began at 100 points. In only a year and a half, the Shanghai Composite Index had jumped 1329% to 1429 points. The index then plunged for 5 months, returning to 400 points. At the end of 1992, the index took off again, expanding 284% within 3 months. After that, the market reversed and fell for 17 months, reaching a low of 333.92 points on July 29, 1994. On August 1, 1994, the Shanghai Composite Index began to climb a new hill of the roller coaster, shooting up 215% to 1053 points in little more than a month. A longer bear market then began, and on January 19, 1996, the SCI hit a low of 512.80 points. Then, within less than half a year, it exploded to

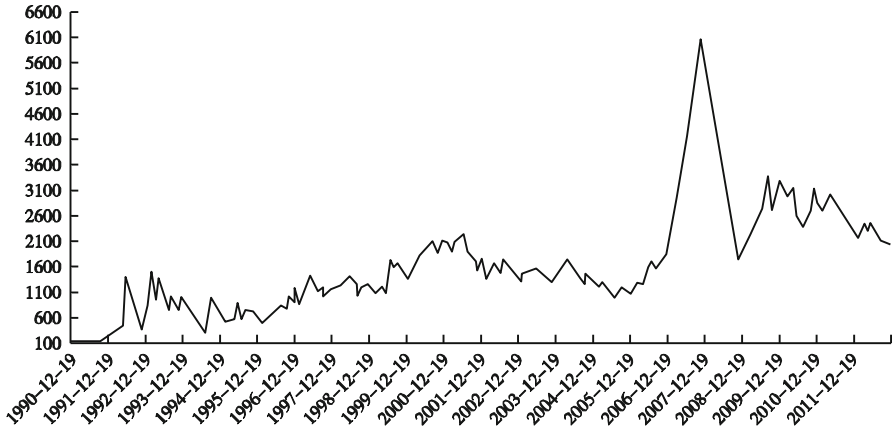


Fig. 4.1 Shanghai composite index trends 1990–2012 (Source: Wind Consulting)

1000 points. After reaching a high of 1510 on May 12, 1997, the market began a 2 year adjustment. In the “May 19” blowout of 1999, in a short month and a half, the SCI added nearly 70 % to its value. After falling sharply, it again rushed upward to 2245 points on June 14, 2001. It then fell rapidly into a 4 year bear market, hitting a low of 998.23 points on June 6, 2005. Emerging from the storm, the SCI entered an unprecedented bull market in the second half of 2005, booming upward to 6.124 points. But it wasn’t long until the market again entered an unprecedented slump (Fig. 4.1).

Compared to stock markets on China’s periphery, both the monthly amplitude and the frequency of large fluctuations are greater in the Chinese stock market. In general, the higher the level of development of a stock market, the smaller its monthly amplitude.

In the 21 years from 1991 to 2011, the monthly amplitude of the Chinese stock market was less than 10 % a total of 106 times. Globally, this is similar to the case of the Mumbai SENSEX30. But in terms of 20 % amplitude, the Chinese stock market is not only far higher than mature stock markets in developed countries, but is also far higher than developing country stock markets and the stock markets of India and South Korea. Among the three major stock indexes in the U.S., the NASDAQ is comprised mostly of technology stocks, and volatility is relatively high. But the index had monthly amplitude of 20 % only 17 times between 1991 and 2011, and the highest amplitude was only 31.7 %. The SCI had similar amplitude 49 times during the same period, with the highest amplitude reaching 222.07 %—the highest in the world. Although the Mumbai SENSEX30 index is also one of the world’s more volatile, its monthly fluctuations are dwarfed by those of the SCI.

Looking at the 21-year history of the Chinese stock market, A-shares have always been in a succession of sharp rises and falls, and there has been little regularity to the fluctuations. But generally speaking, with the establishment and improvement of various regulatory systems, risks have faded. Monthly amplitude

Table 4.1 A-share amplitude and frequency 1991–2011

Year	Lower than 10 %	10–20 %	20–30 %	Higher than 30 %
1991	7	3	2	0
1992	2	3	2	5
1993	1	1	4	6
1994	1	6	1	4
1995	1	9	1	1
1996	2	6	2	2
1997	3	8	1	0
1998	8	3	1	0
1999	8	2	1	1
2000	8	4	0	0
2001	7	5	0	0
2002	8	4	0	0
2003	10	2	0	0
2004	8	4	0	0
2005	6	6	0	0
2006	7	4	1	0
2007	0	7	5	0
2008	0	5	7	0
2009	3	7	2	0
2010	6	6	0	0
2011	10	2	0	0
Total	106	97	30	19

Source: Calculated and compiled from Wind SCI market data

of 30 % has not occurred since 1999, and the significant probability of systemic risk has decreased significantly. That said, monthly amplitudes between 20 and 30 % increased after 2006 (Tables 4.1 and 4.2).

4.2 Corporate Governance of Listed Companies Must Be Improved

Shares, as an investment in a company and possessing ownership rights, mean that sharing in a company's operating profit is a basic right of stockholders. Because shareholders first invest funds, which the company subsequently puts to use, the gains from the use of funds come even later (Li Yang, Wang Gouging 1998). Therefore, from a micro perspective, the degree of risk in holding a company's stock is determined by the company's level of compliance and business performance. Looking at the situations before and after listing and before and after refinancing for Chinese listed companies, in recent years, after rectification of listed company corporate governance, the level of corporate governance at Chinese listed

Table 4.2 Monthly comparison of amplitude between A-shares and major world indices

Index	Lower than 10 %	10–20 %	20–30 %	Higher than 30 %	Peak Amplitude (%)	Peak Month
SCI	106	97	30	19	222.07	May 1992
Dow Jones	215	32	5	0	27.65	October 2008
S&P 500	212	36	4	0	28.06	October 2008
NASDAQ	167	68	16	1	31.70	April 2001
DAX (Germany)	178	58	14	2	32.40	September 2001
CAC40 (France)	180	60	12	0	28.59	August 2008
FTSE 100	214	34	4	0	28.29	October 2008
Nikkei	159	87	5	1	39.63	October 2008
HSI	134	101	13	4	42.97	October 1997
KOSPI (South Korea)	124	98	25	5	49.42	January 1998
Mumbai SENSEX30	106	119	24	3	49.62	March 1992

Source: Calculated and compiled from Wind market data

companies has improved significantly.¹ But due to various systemic factors, a number of outstanding issues affecting the standardized development of Chinese listed companies remain. Poor management of listed companies will cause stock price volatility, which is not conducive to market stability. Therefore, there is a certain degree of endogeneity in the risk investors take in holding a company's stock, and investors "voting with their feet" further expands risk.

First, the affairs of state-backed listed companies are often subject to the direct intervention of controlling shareholders, resulting in outside control and a certain risk to the business. Observing appearance, listed companies not only maintain independence from controlling shareholders in property rights, personnel, and operations in form, but due to "owner absence," the government's "economic control" of the listed company is naturally very weak. However, in reality, because managing party cadres are placed in state-owned listed companies on principle, the

¹For example, from 2007 to 2009, in the course of its three-year "Listed Company Corporate Governance Special Activities," the CSRC found a total of 10,795 violations of corporate governance rules. By 2009, it had supervised the rectification of 8,395 corporate governance problems, a rectification rate of over 98%. See "Shan Fulin zhuxi tan zhongguo ziben shichang ershi nian [Chairman Shang Fulin on Twenty Years of Chinese Capital Markets]" in the CSRC Research Center online anthology "Zhan zai xin de lishi qidian shang [Standing at a New Historical Starting Point]," page 10.

right of the government and party to assess and appoint or dismiss company directors and managers has never relaxed. This direct control of personnel can be said to be a form of “super-administrative control” of listed companies (Yang Songwu 2009). Thus, listed companies are often subject to interference and even control by the controlling shareholder in actual operations. For example, some controlling shareholders bypass the shareholders meeting, board of directors, and management and become directly involved in the appointment of personnel, daily business decisions, and the use of funds so that the management of the listed company makes decisions not necessarily conforming to operating principles or which harm the interests of the listed company through related party transactions and other methods. Therefore, under this super control, the business goals of listed companies are often “diversified,” to the point where satisfying the demands of higher administrative departments often becomes the number one priority of listed company operations (Wang Guogang 2003). This is not conducive to the long-term growth of the company and creates certain operational risks.

Second, the owners of some state-owned listed companies are absent, and problems of control by internal persons are serious. In theory, if no problem of control by an external person exists, problems of control by internal persons will not be produced (Shanghai Stock Exchange Joint Research Program 2009). Although Chinese state-owned enterprise reform has not been accompanied by large-scale privatization of property, because of owner absence at some state-owned listed companies, some managers of state-owned enterprises have gained more abundant authority in the process of “devolution of power” reforms, forming a situation in which a manager at the core controls the company internally (Yang Songwu 2009). In addition, due to the “cheap voting” issue in absent ownership and official oversight, internal control issues can easily occur in the contractual relationship between shareholders and managers in state-owned listed companies (SSE Joint Research Program 2009). Thus, there are no effective checks or oversight of company decisions and operations. In extreme situations, external controlling persons collude with company management. Especially in the real context of the dominance of state-owned shares, the problem of “control by internal persons” may be even more serious. Not only will control by an internal person harm a company’s standardized operations and long-term development and contribute to short-term behavior in company operations, but it may also generate a “hollowing out” phenomenon, harming the interests of principals and leading to an erosion of corporate profits and a loss of state assets.

Third, due to the convergence of problems of control by external persons and by internal persons, the corporate governance of some companies exists in form only. The general shareholders meeting, board of directors, and board of supervisors become mere formalities rather than acting as checks and balances between controlling shareholders and minority shareholders, internal directors and outside directors, and the board of supervisors and the board of directors. For example, the “general meeting of shareholders” of listed companies often becomes the “meeting of large shareholders, the power of the board of directors often decays into the power of the chairman of the board, and independent directors and

committee members are unable to play their roles. As another example, there is too much overlap in the operators and directors of some listed companies, making it difficult for the board of directors to play its decision-making, appointment, oversight, and assessment roles. A prominent phenomenon is that because managers and controlling shareholders have access to far superior information, managers become swindlers and opportunists, and controlling shareholders become subtle predators. The lack of good information also means shareholders have no basis by which to oversee managers, and small shareholders have no way to conduct oversight of large shareholders, or they can only do so once it is too late (SSE Joint Research Program 2009).

Further, since the high proportion (approximately 70 %) of state-owned shares and legal person shares cannot be traded, the minority of disparate personal tradable shares trading in the secondary market simply cannot be used to put pressure on the management of listed companies, much less act as an oversight mechanism for investors. Therefore, the management of some listed companies lack honesty, trustworthiness, diligence, and responsibility, and they often give more consideration to the controlling shareholder or to their own interests and on-the-job consumption. For example, the directors of some listed companies are often absent or entrust their seats on the board to others (CSRC 2010). Moreover, it should be noted that, due to imperfect corporate governance, in addition to company managers lacking in diligence and responsibility, those inside and outside the company are likely to carry out insider trading. In extreme cases, external controlling persons and listed company management may collude in rent seeking (Fei Hongwei and Ke Dagang 2005), and individual executives may assist controlling shareholders in harming listed company interests.

Fourth, there are still corporate governance issues at Growth Enterprise Market (GEM) companies, which are mostly of non-state backgrounds, which pose risks to the growth of these companies. In the years prior to listing, most GEM companies implement share incentive programs for management. But because of the short-term nature of the incentive programs (most have few or no stipulations for middle or long-term targets), after listing, these shares acquired at low prices are worth several millions, tens of millions, or even billions of yuan in the market. With huge temptations and few effective legal constraints on the resignation of executives, many choose to resign and cash out. This undoubtedly affects the company's growth. Many such companies perform well for a year, flatten out for 2 years, and then have poor results, which further shakes investor confidence. For shareholders, the risks of investment go without saying.

Due to these problems of listed company governance, there are endogenous vulnerabilities in the fundamentals of the Chinese stock market. In other words, the stock market has not become a win-win financial platform benefitting both listed companies and investors, nor is there positive interaction and circulation between the former and the latter, nor has an interdependent financial ecological balance been established. Because despite that in theory the direct financing of listed companies through the stock market comes with a prerequisite of providing a good rate of return to investors, in China, investors often bear the loss of

plummeting share prices. Because corporate governance exists in name only, the phenomenon of “heavy listing, light restructuring, heavy financing, light returns” is a common occurrence in the actual operations of listed companies. The fact that there are few or no dividends is of secondary concern. The bigger risk to investors is that many listed companies, whether after an IPO or a secondary offering, are flush with cash but have nowhere to invest it, or they arbitrarily change the use of funds stated during the financing and abandon the main business to invest on a large scale in bank entrusted loans,² trust financial products, and high-risk financial products promising high returns. When listed companies behave like this, the rational choice for investors is to abandon value investment and attempt to chase highs and chase the market.

4.3 Imbalances in the Stock Market Investor Structure

4.3.1 *A Majority of Investors are Individual Investors*

Individual retail investors dominate the Chinese stock market investor structure. Looking at stock accounts, individual investors are the absolute leaders. Statistics show that as of the end of 2011, there were 165.47 million A-share and B-share accounts, of which individual investors made up 162.94 million accounts, accounting for 99.61 % of all investor accounts. When that proportion was at its lowest in 2006, individual investors still accounted for 99.49 % of all accounts. In the A-share market, of 162.95 million accounts, individuals accounted for 99.62 %, or 162.33 million accounts. Therefore, from the number of stock market accounts, one can see that individual investors are the main participants in the Chinese stock market. From the distribution of the actual market value of listed shares in circulation, one can see that accounts with less than 500,000 yuan in tradable shares account for 97.84 % of accounts, and 97.71 % of individual investor accounts have stock market capitalizations of less than 500,000 yuan.

In terms of the market value of stocks held by institutional investors, Chinese individual investors are still in an absolute dominant position in terms of the market value of shares. China’s institutional investors are mostly pension funds, insurance funds, funds, QFII, and collective brokerage wealth management. According to Wind Consulting statistics based on 2012 interim reports, these had market shares of: 72.27 billion yuan for funds, 47.91 billion yuan for social security funds, 53.21 billion yuan for insurance funds, 61.13 billion yuan for QFII, and 16.36 billion yuan for brokerage collective wealth management. These institutional investors

² Wind Consulting statistics show if holding shares for one year beginning January 4, 2011, only 19 listed companies had dividend yields of more than 4 %, and only 46 listed companies had yields higher than 3 %. In the first 10 months of 2011, 217 companies on the Shenzhen and Shanghai stock exchanges issued entrusted loan reports with a cumulative amount of 30 billion yuan.

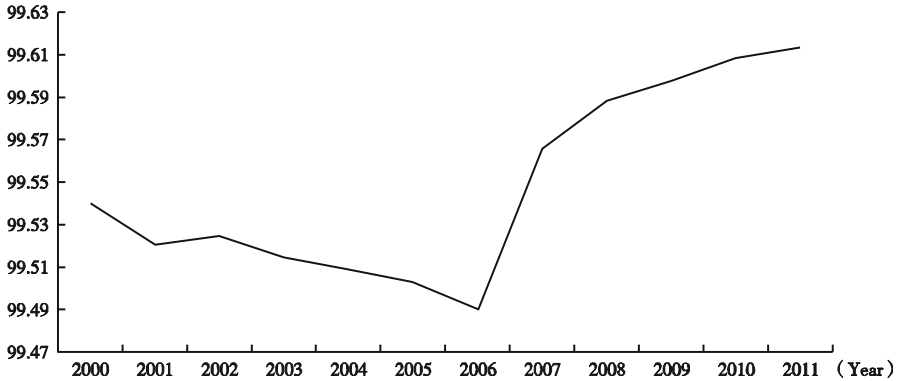


Fig. 4.2 Changes to the proportion of individual investor accounts to overall investor accounts in the Chinese stock market 2000–2011 (Source: China Securities Depository and Clearing Statistical Yearbook 2011)

together held 4.62 % of the overall A-share market value. Even adding in financial services companies, corporate annuities, brokerages, trust companies, banks, non-financial listed companies, and the holdings of general legal persons, institutional investors held only 17.5 % of the A-share market value. Thus, retail investors dominate Chinese stock market trading (Fig. 4.2) (Tables 4.3 and 4.4).

4.3.2 Large Ups and Downs Difficult to Avoid in Stock Market Dominated by Individual Investors

As an emerging and transitional stock market, an investor structure such as China's is somewhat inevitable. On the one hand, this is a result of the relatively low degree of marketization of the entire stock market. But on the other hand it is a result of the sluggish development of fund-type institutional investors. The problem is, practice shows that such an investor structure has had a negative impact on the smooth operation of the stock market. In theory, institutional investors are more interested in long-term, strategic investment. They have a deeper understanding of value investment and portfolio investment and are unlikely to chase short-term investment returns and frequently enter and exit the market. Looking at the international stock market experience, markets with a higher proportion of institutional investors have lower volatility, and institutional investors play a significant role in lowering overall stock market volatility. Studies also indicate that the higher the proportion of institutional investors in a stock, the less likely the price is to jump and the more stable the market (Wang Yongmei and Wang Yaping 2011). Therefore, institutional investors have a positive effect on the stability of capital markets.

But in China, individual investors dominate the investor structure. This irrational investor structure has naturally become an important factor affecting overall market

Table 4.3 Number of investor accounts for each year unit: 10,000 accounts

Year	Total	Individuals	Institutions	A-share—Individuals	A-share—Institutions	B-share—Individuals	B-share—Institutions
2000	5904.64	5877.49	27.15	5851.76	25.66	25.73	1.49
2001	6679.27	6647.24	32.03	6500.98	30.45	146.26	1.58
2002	6823.09	6790.68	32.41	6638.31	30.83	152.37	1.58
2003	6961.02	6927.24	33.78	6771.35	32.18	155.89	1.6
2004	7106.11	7071.20	34.91	6912.65	33.22	158.55	1.69
2005	7189.44	7153.72	35.72	6994.12	34.01	159.6	1.71
2006	7482.11	7443.96	38.15	7281.29	36.26	162.67	1.89
2007	11286.43	11237.41	49.02	11005.22	46.9	232.19	2.12
2008	12363.89	12312.95	50.94	12074.93	48.61	238.02	2.33
2009	14027.88	13971.44	56.44	13727.72	54.06	243.72	2.38
2010	15454.02	15393.48	60.54	15146.04	58.02	247.44	2.52
2011	16546.90	16482.88	64.02	16233.42	61.32	249.46	2.7

Source: China Securities Depository and Clearing Statistical Yearbook 2011

Table 4.4 Distribution of tradable listed stock market values among A-share accounts

	Number of accounts— individuals	Proportion (%)	Number of accounts— institutions	Proportion (%)	Number of accounts— total	Proportion (%)
< 10,000 yuan	21,661,112	38.57	7238	8.18	21,668,350	38.52
10,000–100,000 yuan	27,024,459	48.11	20,148	22.76	27,044,607	48.07
100,000–500,000 yuan	6,309,333	11.23	20,804	23.50	6,330,137	11.25
500,000–1 million yuan	712,296	1.27	8696	9.82	720,992	1.28
1–5 million yuan	415,352	0.74	15,193	17.16	430,545	0.77
5–10 million yuan	29,048	0.05	4114	4.65	33,162	0.06
> 10 million yuan	15,267	0.03	12,333	13.93	27,600	0.05
Total	56,166,867	100	88,526	100	56,255,393	100

Note: The number of accounts with market shares of below 10,000 yuan does not include those with market share values of zero (i.e. those holding no listed A-shares).

Source: China Securities Depository and Clearing Statistical Yearbook 2011

transactions. Due to China's individual investor-dominated stock market, homogeneity in investor behavior is relatively serious. Investor decisions often lack rationality and long-term considerations (even though investors have to be responsible for their own money). Individual investors often blindly follow trends and chase the market. Overall market transactions exhibit high turnover and are short-term. Speculation is rampant, and the "herd effect" is clear.

In terms of IPO speculation, in the past, approximately 90 % of those involved in first-day transactions have been individual investors. In the November 11, 2012 IPO of Zhejiang Shibao on the GEM for example, blind "me-tooism" and "herd behavior" were vividly evident. The company made an initial offering of 15 million A-shares at an issue price of 2.58 yuan per share. At the opening bell, the price rose to 15.62 yuan (up 505.43 %), and at closing stood at 18.75 yuan (up 626.74 % from the listing price and setting a record first day IPO gain). Shares changed hands at a rate of 95.15 %. Because of intraday turnover of more than 50 % and the rise in the opening quotation, trading was temporarily halted three times.

Looking at the entities behind the trades of Zhejiang Shibao, Shenzhen Stock Exchange statistics show that funds and other professional institutions did not buy into the stock on the first day. Only seven general institutions bought small amounts totaling 0.14 %. Individual investors were the dominant force in first-day buying, accounting for 99.86 % of purchases. Less than two-thirds of 1 % of investors purchased 50,000 shares or more, accounting for 23.66 % of shares purchased; 94.59 % of investors purchased 10,000 shares or fewer, accounting for 42.7 % of shares purchased; and 29.44 % of investors purchased 5000 shares or fewer, accounting for 29.44 % of shares purchased. In terms of investor asset classes, investors with more than 5 million yuan in assets accounted for 0.66 % of purchasers and bought 12.21 % of shares; investors with fewer than 500,000 yuan in assets accounted for 90.9 % of purchasers and purchased 52.07 % of shares; investors with less than 100,000 yuan in assets accounted for 62.95 % of purchasers and purchased 20.5 % of shares.

The higher the share price, the greater was the proportion of small investors buying shares. During the opening call auction phase, 75.08 % of purchasers were purchasing 5000 shares or fewer, accounting for 13.47 % of shares. From the second resumption in trading to the third suspension in trading, 94.26 % of purchasers were purchasing 5000 shares or fewer, accounting for 48.95 % of shares purchased (Zhang Li 2012). Although speculating on new stocks can result in high book profits, it is more likely to result in huge losses. The problem is that many China's investors still believe the axiom, "Investing doesn't making money. Speculation makes money." Led by this concept, when making investment decisions, investors often do not care about the about-face in post-IPO company performance. In fact, after its A-share IPO, Zhejiang Shibao reached its lower trading limit for two consecutive days and then continued to fall.

More important is the fact that in a market dominated by individual investors, the profits from rising share prices are concentrated in a few hands, while the risks of falling shares are borne by the vast majority of people. Institutional investors, which have advantages in capital and information, are still in their growth phase, and their

investment behavior and investment philosophies are still immature. They too can occasionally become points of instability in the market.

In such a market environment, some institutional investors appear to have capital gains as the main goal of investment, which further adds to the speculative atmosphere of the overall market. An institutional investor's aim is obviously to maximize profit. Because public funds are restricted by the ranking incentive system and face redemptions at any time, chasing the market becomes the norm, and public funds too are characterized by rapid changes and short-term speculation. Studies have shown that higher frequency of institutional trading is associated with a greater likelihood of stock price jumps, impacting market stability (Wang Yongmei and Wang Yaping 2011). There is even a pessimistic view in the market that funds are simply born to be large retail investors. Even worse, institutional investors can make market volatility worse. Because individual investors are in the majority and institutional investors have a relatively small market environment in which there is no mechanism for mutual restraint among institutional investors, institutional investors can use their large shares in a target company to put pressure on a listed company to turn over insider information or even use their market influence to release information that facilitates their own short-term arbitrage gains. In addition, with the gradual increase in connectivity between China's stock market and outside stock markets, the impact of fluctuations in foreign markets on the Chinese market is growing. Due to the congenital defects of the Chinese stock market, these foreign fluctuations can have a huge "butterfly effect" and trigger stock market crisis at home.

4.4 Weak Comprehensive Competitiveness of Securities Companies

The experience of the U.S. subprime mortgage crisis shows that the market risk first breaks through the weak link of operating institutions, particularly financial institutions, and then gradually spread. China's securities companies developed from the securities departments of commercial banks and trust companies, and they lack the management experience of modern securities companies. Market structural adjustment from 2002 to 2004 caused security company risks that had accumulated over the years, such as a vast amount of leveraged business and irregular operations, to break out, seriously impacting the safe operation of the stock market. In 2007, comprehensive therapy was completed in the market. Today, securities companies have entered a track of healthy development. However, as stock market intermediaries, securities companies are also a basic link for resisting systemic risks in the stock market, and China's securities companies are still do not have a strong competitive edge. With the opening of China's stock market to the outside world, the weakness China's securities companies exhibit in market competition will become a risk.

Securities companies cannot fully play the intermediary role of investment banks. In the issuance and auditing of securities, because the existing issuance system is one of approval rather than registration, there are still too many administrative controls, approval procedures are too complex, and the approval period is quite long. To a great extent, regulatory agencies determine issuer qualifications, issue size, and time to market. For example, a filing system overseen by the People's bank of China is in place for short- and medium-term financing bonds. The National Development and Reform Commission oversees the filing system for general corporate bonds. The CSRC regulates the approval system for the issuance of listed corporate bonds, convertible bonds, and bonds with warrants. In such an issuance system, innovation in the investment banking business of securities companies is weak. For example, there are still long approval cycles and high requirements for the qualifications for business types and launching new businesses (China Securities Association 2011). In the real context of the opening of Chinese capital markets to the outside world, with single-focus investment banking business, if securities companies are not competitive enough in the market, their collapse in market competition will undoubtedly form financial risks, which will spread.

In terms of the structure of operating income, Chinese securities firms have a high degree of dependence on intermediary business, particularly agency securities trading business. This elementary profit model, which relies on market conditions, will seriously hinder the role of the capital market in allocating resources in the long-term. On the one hand, the model will be unable to resist competition and business erosion from commercial banks and overseas investment banks because domestic commercial banks and overseas investment banks have more innovative financial products, and the results of innovation are clear.³ On the other hand, the corporate entity status and lack of innovative capabilities of domestic securities companies have undoubtedly restricted their ability to serve the real economy. They have been unable to effectively promote efficient capital market operation and improve their own business performance. We can say that non-operational risks and the inability of securities companies to innovate will pose the greatest systemic risks to the securities industry in the future (Table 4.5).

Although the weak comprehensive competitiveness of securities companies is a relative concept, it is undoubtedly closely related to weak business innovation capabilities. This is partly a result of the regulatory system, but it is also a result of factors endemic to securities companies themselves. Independent innovation is an important support that will allow the transformation of China's economic development model and adjustment to the economic structure. In this context, securities companies are lagging significantly behind. In terms of the payment

³For example, overseas investment banks have dominated financial product innovation, effectively meeting the investment, financing, and risk management demands of the real economy, such as foreign exchange forwards, currency swaps, interest rate swaps, chattel mortgage debt, and car loans securitization. In 1973, several large investment banks and insurance companies created money market funds. These funds grew from less than US\$ 100 million in 1973 to US\$ 240 billion in 1982.

Table 4.5 Main sources of operating income for Chinese securities companies in recent years

100 million yuan	2009	2010	2011
Operating income	2050	1911	1360
Net operating income from Securities Trading Agency	1419	1085	689
Net income from securities underwriting and sponsorship and financial consulting business	152	272	241
Net income from entrusted client asset management business	16	22	21
Investment income (Including changes in fair value)	232	207	50

Source: Compiled from data from the Chinese Securities Association website

function, “client funds accounts” are virtual accounts. There is no actual cash position, and only closed operation is possible through stock-bank transactions. In terms of the trust function, the functional positioning of the relevant laws and regulations for securities companies is unclear, which also restricts innovation in margin trading and over-the-counter (OTC) products. In terms of the trading function, securities companies lack market-making experience.⁴ Moreover, Chinese securities companies are subject to varying degrees of restrictions in these basic financial functions. This has naturally constrained the development of independent innovation capabilities, thus restricting the ability to enhance comprehensive competitiveness.

4.5 Stock Market Mechanisms and Efficiency Must Be Improved

The Chinese stock market is an obvious dual system with traces of planned economy mechanisms and market economy mechanisms, which is the starting point for understanding and analyzing various specific phenomena in China's stock market (Wang Guogang 2003). In this dual-system stock market, there is still a large gap with developed capital markets in terms of the operating mechanism and operating efficiency. In developed countries, the stock market is a “barometer” for the broader economy. But looking at the trend of China's stock market over the years, the relationship between the stock market and the macro economy is unstable—sometimes uncorrelated, sometimes weakly correlated. In terms of the micro-foundation of stock market operations, not only does market infrastructure lag behind, but there are also flaws in many of the systemic aspects affecting the operation of the stock market. These shortcomings have undoubtedly limited the market's price discovery function, reduced the efficiency of market operation, as

⁴ Source: “Zai zao woguo zhengquan gongsi zuwei touhang de san da jichu gongneng [Rebuilding the Three Major Basic Functions of Chinese Securities Companies As Investment Banks],” *Zhongguo zhengquan bao*, August 6, 2012.

well as the operating efficiency of the stock market. They have also increased market risk.

Among the factors affecting the operational efficiency of the stock market, policy is clearly one of the most important. In the “emerging and transitional” stock market, the government plays the dual roles of “market cultivator” and “market supervisor.” On the one hand, the government wants the stock market to operate according to market economy mechanisms. On the other hand, the government employs non-market administrative orders to participate in the building of the stock market, such as special approval of certain IPOs. Then on the one hand the government must protect basic property rights, improve the transparency of the transaction process and procedures, and protect investor confidence. Wang Guogang (2003) summarized three types of regulatory influence or means of regulating the stock market: formally, by issuing documents and policies; informally, by communicating policy intent; and privately, by “organizing” institutional investors to carry out policy intent. In reality, there are often potential conflicts among these diverse government behavioral goals, and government policy therefore often evolves into excessive intervention in the stock market.

Therefore, in such an obvious “policy market” stock market, the risk of changes to policy are bound to engender rent seeking, which reduces the operational efficiency of the stock market. In essence, a stock market should provide investors with a fair, open, and equitable trading venue and platform. The introduction of regulatory policy is a need for economic development, but also a result of the game being played between competing interest groups. This is understandable. But because the introduction of policy generally includes a period of internal study, rent seeking—the transfer of social wealth into the hands of a few without corresponding productive labor—often occurs in the stock market during this time.⁵ Not only will listed companies employ various means to persuade the government to use legislation or other administrative powers introduce policies beneficial to themselves or that will allow them to maintain their own monopoly position or superiority (Mao Ping and Xiao Xiao 2010), but institutional investors will also make discreet inquiries to obtain insider information (Wang Guogang 2003). When institutional investors obtain internal information on policy, stock prices move abnormally, and regular investors speculate according to market rumors. Even in the inquiry stage of IPO pricing, issuers, underwriters, and investors compete to expand their own interests. The results of this game are often high issue prices, high price-earnings ratios, and large amounts of capital raised. The post-IPO result is often poor performance in the secondary market. Naturally, compared to the stock markets of developed countries, there are distortions in the operating mechanism for China’s stock market. Not only is there a variety of

⁵ This seriously affect the standardized operation of the stock market and the effective implementation of the three principles of justice, fairness, and openness in the stock market and results in the abuse and waste of public resources.

serious non-standard phenomena, such as price manipulation and insider trading,⁶ but ordinary investors are also often misled, making rational investing difficult. Additionally, the self-regulatory function of China's self-organization has not been sufficiently developed. In the context of excessive policy interference and a lack of stock market culture, there is endogenous weakness in the Chinese stock market. In the face of significant financial risk, it has little ability to self-balance and self-heal. This undoubtedly reduces the efficiency of China's stock market and is a significant source of risk and security dangers in the market.

With a relatively low level of market-orientation, excessive examination and approval is needed for a listed company to leave the market, for the issuance of new shares, for asset restructuring, for equity transfer, for distribution of profits, and other major matters. This is bound to come at the expense of the efficiency of the market. A remarkable fact is that difficulty in keeping insider information confident leads to insider trading, which harms investor confidence and disrupts the stable operation of the market. In general, listed company insider information must go through eight links from coming into being to disclosure, namely, initial intention and deliberation, early preparation, submission and discussion, forming a draft, reporting for approval, board of directors discussion, formal contract signing, and consideration by shareholders meeting. The possibility for leaking information exists in every stage. In the approval process, major administrative matters must be reported to large shareholders, the State-Owned Assets Supervision and Administration Commission (SASAC), the National Development and Reform Commission (NDRC), and environmental and other authorities for approval. This segment of the process alone involves numerous human affairs, and this stage often takes a long time to complete. And of course, the longer the time, the more difficult it is to protect insider information. With the completion of share reform, and with the stock market about to achieve full circulation, insider trading has become more universal, general, and networked, and insider trading is often linked with market manipulation, mainly in mergers and acquisitions and profit distribution (China Securities Regulatory Commission Research Center 2011). Thus illegal behavior often occurs during listed company acquisitions.

In addition, due to imperfections in the delisting mechanism, shares with no value investment opportunity remain in a transactional state, becoming another important factor affecting market efficiency. Uncertainty over when a listed company will delist, as well as the "hard landing" of the stock price after delisting, make for huge direct losses for small investors. Nor can investors avoid these risks. In the existing delisting system, delisting standards have been solidified to a certain extent. For example, over-emphasis on the performance of listing companies makes standards too rigid. As another example, a single listing standard offers insufficient flexibility. Thus, the "survival of the fittest" mechanism has not been

⁶For example, in the 1999 Zhong Ke Chuang Ye insider trading case, the 2007 Hang Xiao Gang Gou insider trading case, and the 2009 Gao Chun Taoci insider trading case.

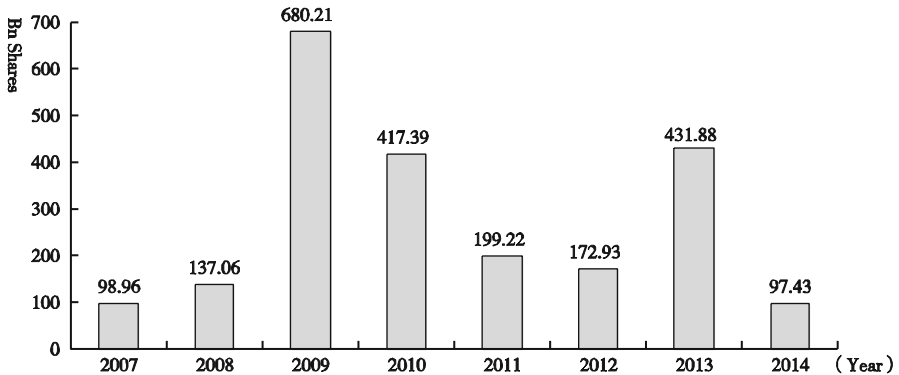


Fig. 4.3 Numbers of previously restricted shares and shares awaiting lifting of restrictions in the Chinese stock market 2007–2014 (Source: Wind Consulting)

fully exploited in the Chinese stock market, which makes speculation on underperforming shares and theme stocks rife.

Stock market operating efficiency and the operating mechanism undoubtedly pose risks to the Chinese stock market. One significant potential risk is the significant threat to the stable operation of the stock market caused by the lifting of the ban on restricted stocks in split-share reform and the additional restricted stocks in new share issues after the delineation between new and old was broken. Although split-share reform enabled an institutional breakthrough in the Chinese capital market, and the pattern of listed company tradable shares basically formed, in recent years, the total scale of previously restricted shares on the A-share market has remained high: 137.06 billion shares in 2008, 680.21 billion shares in 2009, 417.4 billion shares in 2010, 199.22 billion shares in 2011, 172.93 billion shares in 2012, and 413.88 billion shares in 2013. Since the subscription prices of these previously restricted shares are far lower than the subscription prices of public shares, in reality a distortion has already been created in the market share pricing mechanism. The sale of previously restricted shares signifies a serious violation of the interests of public shareholders.⁷ When these shares will be traded and by what means has become a “sword of Damocles” hanging over the head of the stock market, causing unstable stock market expectations. Obviously, there is risk in restrictions being lifted on such a huge amount of shares, especially if their collective sale causes a liquidity crisis. This could not only shatter the safety bottom line for individual stocks, but could smash the safety bottom line of the entire stock market, and even drag the entire financial system into difficult circumstances and ultimately threaten China’s financial security (Fig. 4.3).

⁷ For example, in recent years, senior management of GEM-listed companies have resigned in order to sell off their holdings, but such cashing out in advance leads to fluctuations in individual stocks, shaking investor confidence. Turnover in the core founding management team also affects company growth, further harming investor confidence.

4.6 The Risks of Opening the Stock Market to the Outside World

The opening of the stock market to the outside world is an inevitable trend of China's financial reforms, and the introduction of foreign investors to the market will add a new set of variables to the risks in China's stock market. In general, the entrance of foreign capital can promote more objective and rational judgment of company value and stock index positioning and thereby reduce market risks, while also weakening endogenous risk factors. However, from the experience of the Asian Financial Crisis, we can see that foreign investors pose a huge threat to the stability and security of a country's stock market and can trigger financial crisis. During the Asian Financial crisis China had advantages in international balance of payments, investment environment, economic growth, the social savings rate, and the government's control of the economy compared to other emerging market countries, and due to the closed nature of its capital markets, China was fortunately able to avoid the impact of the previous Asian Financial Crisis (Liu Jin 2005). In the process of opening the Chinese stock market to the outside world, it will be difficult to avoid the impact of volatility in neighboring and international capital markets. It should not be ignored that the Chinese stock market has its own unique market characteristics, which means China will face different financial risks and financial security risks than other countries.

First, the investment climate in the Chinese stock market is still very thick, and public trust is weak. For example, investor expectations are short-term, and there is a high proportion of short-term policy news, market rumors, banker trends, and sector trends. Another example is institutional manipulation, listed company fraud, abnormal related party transactions, etc. If speculation is a strong force in the domestic stock market, QFII policies cannot be fully utilized to release existing market risks in the transitional period, and a sound system for areas such as accounting and disclosure standards, listed company corporate governance, and punishment for violators cannot be established, once foreign investors enter the market, they will be inclined to choose speculative behavior and become "foreign bankers" stirring up trouble in the market (Jiang Zhenhua et al. 2004). If institutions carry out new illegal cross-border activities, market risk will increase further, and financial security will be endangered.

Second, the stock market is still affected by the planned economy system. Market risks from institutional factors have long existed. For example, the government performs perfunctory oversight of the market and is even a "hidden guarantor" of the investors and the market, leading to a "coercive mechanism" in which investors and listed companies demand the government intervene in the market again and again, thereby fuelling speculation (Zhang Zongxin et al. 2001). As another example, the phenomenon of companies being controlled by a single large shareholder and imperfect corporate governance will on the one hand lead to a reduction in company performance and on the other will cause holders of tradable shares to ignore the long-term growth of the company because they lack control of its actions. Thus, a game between the market and government forms on

the foundation of the game between institutional and individual investors. Therefore, once foreign investors enter the market, they may have as strong of a reaction or an even stronger reaction to systemic and policy factors such as programs for the sale of state-owned shares. Moreover, foreign investors may form a relatively independent market force, further complicating an already complex stock market game pattern and thereby enlarging market risks and causing a deterioration of security. Therefore, given that government stock market regulatory methods still do not conform to the conditions for capital market liberalization, the entrance of foreign capital will pose new risks to the operation of the Chinese stock market.

With a yuan exchange rate formation mechanism that has not been fully established, expectations based on exchange rate values are present in China's stock market. It is generally considered risky to liberalize capital markets under a fixed exchange rate regime. Even though due to the vast potential of China's market and the rapid pace of economic growth China's stock market will be attractive to foreign capital after liberalization, given expectations of yuan appreciation, and especially in the context of global attention to the yuan exchange rate, exchange rate uncertainty will lead to uncertainty in market behavior for foreign investors (Jiang Zhenhua et al. 2004). Hedge funds and hot money entering the stock market through other channels would also increase the complexity and uncertainty of stock market operations. Thus, exchange rate fluctuations will likely become a new long-term risk factor for the Chinese stock market after liberalization.

In addition, regulators will face new challenges in the process of liberalizing China's stock market. On the one hand, with the continuous expansion of the openness of the Chinese economy, foreign companies are increasingly active in mergers and acquisitions. Because cross-border mergers and acquisitions will encounter a variety of legal and policy issues, in the M&A process, ensuring these transactions are open, fair, equitable, and transparent, and in particular effectively cracking down on insider trading and market manipulation and promoting and improving the M&A mechanism, are all new challenges for regulators. On the other hand, since foreign investors generally have a greater depth of experience in investing and even speculating than Chinese investors, recognizing illegal behavior in cross-border transactions will be even more difficult. Implementing effective and stringent regulations and sanctions and thereby mitigating deep risks to the stock market are new issues and challenges regulators face in creating policies and measures.

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Chapter 5

The Main Risks Faced by China's Insurance Industry

5.1 Overview of China's Insurance Industry

In 2013, total assets in China's insurance industry reached 8.29 trillion yuan, net assets reached 847.47 billion yuan,¹ and funds in operation amounted to 7.69 trillion yuan. Original insurance premium revenue was 1.72 trillion yuan, of which property insurance premium revenue was 648.12 billion yuan and life insurance premium revenue was 1.07 trillion yuan. There as 621.29 billion yuan in claims paid. The proportion of Chinese insurance revenue to GDP has gradually increased (see Fig. 5.1).

As of December 31, 2012, there were 2532 professional insurance intermediaries nationwide. Among them, there were three insurance intermediary groups, 92 national insurance agencies, 1678 regional professional insurance agencies, 434 insurance brokerages, 325 insurance assessment institutions, and 206,310 insurance concurrent agent institutions. Nationwide, professional insurance intermediaries had registered capital of 16.75 billion yuan, an increase of 45.21 % over the year before. Professional insurance intermediaries had total assets of 23.05 billion yuan, up 34.84% over the previous year. Insurance industry channels achieved insurance premium revenue of 275.77 billion yuan, accounting for 82.4 % of insurance premium revenue nationwide.² China has gradually formed a large insurance marketing and sales network, and management and marketing in the insurance industry have gradually separated, increasing the division of labor and the level of specialization.

¹ Source: CIRC website "2013 nian baoxian tongji shuju baogao [Insurance Statistical Data Report 2013]"

² Source: CIRC "Zhongguo baoxian zhongjie shichang baogao (2012) [China Insurance Intermediary Market Report 2012]"

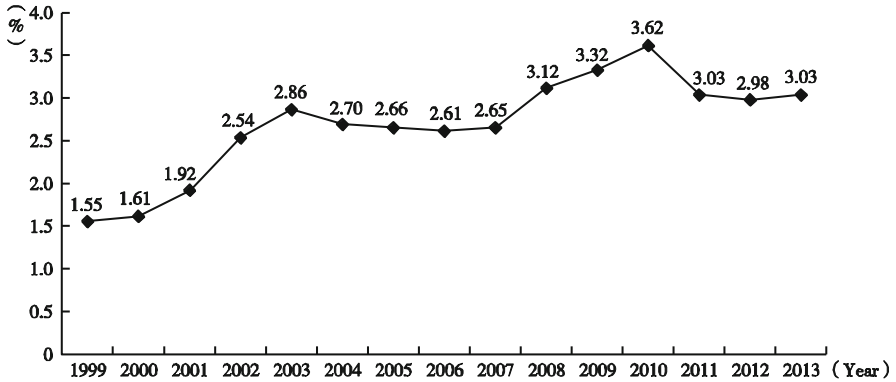


Fig. 5.1 Changes to the ratio of insurance revenue to GDP (Source: Drawn from data contained in “Baixianye Jingying Qingkuang Biao,” “Zhongguo Tongji Jianjian 2013,” and “2013 Nian Guomin Jingji he Shehui Fazhan Tongji Gongbao” from the China Insurance Regulatory Commission website)

The operation of the insurance industry and the insurance guarantee and asset security of policyholders are closely related, and the risk profile of the industry directly affects the interests of policyholders. Solvency problems have occurred at Chinese insurers. At the end of June 2008, 12 Chinese insurance companies experienced solvency problems, among which some had serious problems. Factors reducing the overall solvency of the insurance industry, in addition to the effects of falling stock prices, include the intensive development models of some companies, irrational product structures, low profitability and even long-term losses, and reliance on additional shareholder investment or the issuance of subordinated debt to maintain solvency. At the same time, some companies have flawed governance structures, have failed to establish effective internal risk management mechanisms, and operate with a short-term mindset (Jiang Xianxue 2009). These problems have caused the government to pay more attention to the interests of policyholders. The China Insurance Regulatory Commission (CIRC) has strengthened oversight of insurer solvency, and insurance industry solvency has improved in recent years. At the end of the first quarter of 2013, excluding the Big Three life insurance companies, the solvency ratios of other insurance companies had reached Level II (higher than 150%). Property insurance companies, life insurance companies, and reinsurance companies had a solvency surplus of 441.8 billion yuan.³ Overall, the development of China's insurance industry is stable. There are currently no systemic or regional risks, but some risk factors cannot be ignored in the industry's development.

On May 14, 2013, the CIRC issued the “Di er dai changfunengli jianguan zhidu tixi zhenti gangjia [Overall Framework for the Second Generation of Solvency

³ Source: CIRC website, “2013 nian di yi jiedu quanbu baoxian gongsi changfunengli dabiao [All Insurance Companies Meet Solvency Standards in First Quarter 2013],” June 13, 2013.

Oversight System]” comprised of the three elements of institutional characteristics, regulatory factors, and the regulatory foundation. Institutional characteristics included three main features: unified oversight, emerging market, and risk orientation taking into account value. Regulatory factors included quantitative capital requirements, qualitative regulatory requirements, and market control mechanisms. The regulatory foundation referred to internal company solvency management. The three are closely linked and together form a unified, complete, organic system.

5.2 Basic Factors Affecting Insurance Industry Risk

As professional companies specializing in commercial insurance, insurance companies face various operational risks. Like other companies, there is the risk of bankruptcy and liquidation. From a financial perspective, insurance company revenue comes mainly from insurance underwriting and investments. When underwriting and investments result in losses, the insurance company faces the risk of bankruptcy, and there is a corresponding potential risk to the insurance market. The ultimate success of underwriting and investment operations depends on three spreads: the profit spread, the mortality spread, and the cost spread.⁴ The profit spread refers to the comparison of actual investment yields to expected investment yields. When actual investments yields are higher than expected, there is a positive investment spread. When the yield is lower than expected, there is a negative investment spread. The mortality spread refers to the comparison of the expected risk incidence and actual risk incidence. When the insurance company’s actual risk incidence is lower than expected, there is a positive mortality spread. When it is higher, there is a negative mortality spread. The cost spread refers to the comparison of the company’s actual operating and management expenses and its expected operating and management expenses. When the company’s actual operating and management expenses are lower than expected, there is a positive cost spread. When they are higher, there is a negative cost spread. The profit spread, mortality spread, and cost spread combine to determine the company’s ultimate profitability.

The factors affecting the profit spread can be divided into two categories: systemic risks and non-systemic risks. Systemic risk is the impact of policy, fluctuations to the economic cycle, interest rates, purchasing power, currency, and other factors on insurance asset prices. This risk cannot be eliminated through diversification, so the profit spread of the insurance industry is closely related to capital market trends. Non-systemic risks are usually specific to individual insurance assets, such as corporate credit risk, operational risk, and financial risk. These risks can be avoided through diversified investments, generally depending on the asset management proficiency of the insurance company. Such proficiency is

⁴ Property insurance mainly considers profit spread and cost spread.

dependent on corporate governance, investment philosophy, and operating proficiency. Related transactions and failed investments will produce greater risk.

Factors influencing mortality risk mainly include lifespan and the mortality rate. Lifespan is measured through actuarial tables, which are statistical tables compiled and calculated from vital statistics for a certain country or certain group of people (such as those covered by an insurance company). The most important part of an actuarial table is the calculated mortality rate of each age group. An insurance company designs its insurance policy products based on its skills of calculation. Because companies are extremely cautious and circumspect when designing their policies, the mortality spread is relatively stable and does not pose a large risk to insurance companies.

Factors affecting the cost spread are expenses associated with insurance companies, which are mainly comprised of selling expenses and management expenses. Selling expenses aimed at the individual include direct commissions, additional commission (base pay, management subsidies, awards for bringing members to the company, awards for bringing teams to the company, awards for completing training, welfare expenses, etc.). Expenses aimed at teams include sales team expenses, sales team bonuses, prize funds, department expenses, performance bonuses, agency fees, etc. Management expenses mainly include fixed expenses, variable expenses, and labor costs. Cost management is the focal point of an insurance company's ability to obtain profitability and competitiveness. Behind expense-spread competition are factors such as management philosophy, and competition policy. Management proficiency, cost structure, and efficiency are weapons in the competition. During rapid expansion and vicious competition, a company will have higher management expenses, affecting the company's financial health.

5.3 Main Risks Facing China's Insurance Industry and Prevention Strategies

5.3.1 Capital Use Risks

Use of capital directly affects the profit spread of an insurance company. Use of funds in the insurance industry mainly depends on interest rate risk, stock and bond market risk, exchange rate risk, credit risk, and liquidity risk. Insurance company investment yields have generally fallen recently due to stock and bond market performance. But the proportion of foreign exchange assets of Chinese insurance companies is relatively low, so exchange rate risk is low. In addition, because the credit rating of the transaction counterparts in deposit, bond, and reinsurance transactions is 80 % or higher or AA-level or higher, the five largest transaction counterparts for corporate deposits and bonds are joint-stock commercial banks and foreign banks, with an average proportion of transactions between 10 and 20 %, so overall credit risk in the industry is low. Meanwhile, because insurance premium

revenue overall is greater than insurance payments, overall cash flow in the insurance industry is positive, so liquidity risk in the industry is controllable.

In order to conform to China's macroeconomic and development trends and deepen reforms of insurance funds use, the CIRC in May 2012 issued "Guanyu baoxian zijin yunyong jianguan youguan shixiang de tongzhi [Notice on Matters Relating to Oversight of Insurance Industry Funds Use]." In July 2012, the regulator then introduced "Baoxian zichan peizhi guanli zanxing banfa [Interim Measures on the Use of Insurance Assets]," "Baoxian zijin touzi zhaiquan zanxing banfa [Interim Measures on the Investment of Insurance Funds in Bonds]," "Guanyu baoxian zijin touzi guquan he budongchan youguan wenti tongzhi [Notice on Issues Relating to Insurance Funds Investments in Equities and Real Estate]," and "Baoxian zijin weituo touzi guanli zanxing banfa [Interim Measures on Commissioned Investment Management of Insurance Funds]."

"Notice on Matters Relating to Oversight of Insurance Industry Funds Use" includes two main changes. First, it gives more autonomy to insurance companies in equity investments, providing for a post-investment reporting system for equity investments other than significant equity investments for control or financial and operational influence. Second, it gives more autonomy in the development of insurance asset management products, providing for initial report approval and post-development approval for insurance asset management products issued or initiated and established by insurance asset management institutions. The CIRC carries out only compliance and audit procedures for these investments and product development.

"Interim Measures on the Investment of Insurance Funds in Bonds" expands the range of bond investment options. It increases investment in listed unsecured corporate bonds issued publically in a bookkeeping way, non-financial corporate bond financing tools, and unsecured transferrable corporate debt issued by commercial banks. It clarifies investable government bonds, quasi-government bonds, financial corporate bonds issued by commercial banks, securities company bonds, insurance company bonds, and international development agency yuan bonds, as well as categories for secured and unsecured non-financial corporate debt. It clarifies corresponding qualifications for debt issuing entities. In addition to relaxing restrictions on total amount of bonds and the proportion of investment in individual products, it relaxes restrictions on investment in the primary market. According to data from GF securities, as of the end of April 2012, the proportion of financial assets allocated was 15.3 % for national debt, 27.8 % for policy financial bonds, 25.2 % for corporate bonds, 0.3 % for short-term financial products, 1.6 % for medium-term notes, and 25.9 % for commercial bank bonds. One can see that there is still significant room for investment in short-term financial products and medium-term notes.

In contrast to "Notice on Matters Relating to Oversight of Insurance Industry Funds Use" and "Interim Measures on the Investment of Insurance Funds in Bonds," "Notice on Issues Relating to Insurance Funds Investments in Equities

and Real Estate” relaxes restrictions on fields in which insurance funds can be invested and corresponding investment proportions. Its main changes include:

1. No longer restricting companies allowed to invest in equities and real estate to those profitable for the last fiscal year. The requirement for net assets in the previous year was also lowered from greater than 1 billion yuan to greater than 100 million yuan, and the solvency ratio was also lowered from 150 % in the previous quarter to 120 %, thereby greatly increasing the number of companies able to invest in equities and real estate.
2. Expanding the range of industries in which direct equity investment is allowed to include energy and resources, as well as industries related to insurance business, such as modern agriculture and new trade and logistics businesses.
3. Clarifying that insurance companies can invest in growth funds, M&A funds, emerging strategic industry funds, and parent funds with the aforementioned equity investment funds as their targets, thereby expanding the scope of investment for insurance funds.
4. Expanding the number of unlisted company equity, equity investment funds, and related financial products in which insurance companies can invest. The document raised the total book amount permitted to be invested in these two categories from 5 % of net assets at the end of the previous quarter to 10 %.
5. Clarifying that the total book amount allowed to be invested in real estate not for the insurance company's own use, infrastructure bond investment plans, and financial products related to real estate is not to exceed 20 % of total assets at the end of the previous quarter. Of this, the book amount invested in real estate not for use by the insurance company cannot exceed 15 % of total assets from the previous quarter, and the total book amount invested in infrastructure bond investment plans and financial products related to real estate cannot exceed 20 % of total assets at the end of the previous quarter. Insurance companies have already made moves in equity and real estate investment. China Pacific Insurance Company (CPIC), prior to receiving an alternative investment license, had invested 6.6 billion in Bank of Hangzhou and Shanghai Rural Commercial Bank, by getting each transaction approved individually. In Beijing and Shanghai, the company has invested more than 13 billion yuan in real estate projects. In addition, CPIC Asset Management in 2012 established the industry's first real estate financial product, “Shanghai public rental housing project,” amounting to 4 billion and led the industry by co-sponsoring the establishment of the largest insurance debt investment program to date, amounting to 21 billion yuan. Calculating based on CPIC's 2012 interim report, the company had total assets of 640.52 billion yuan at the end of June. In accordance with the new regulations, the company can invest 65.05 billion yuan in listed company equity and equity investment funds and 128.1 billion yuan in real estate. The two categories together amount to investment of nearly 200 billion yuan. One can imagine how much room the overall insurance industry has to invest in such projects.

“Interim Measures on Commissioned Investment Management of Insurance Funds” stipulates that insurance companies can commission insurance asset

management companies, securities companies, securities asset management companies, securities investment fund management companies, and other professional management institutions to invest insurance capital on behalf of insurance companies. The document also places restrictions on the qualifications of such commissioned agencies. The document is a major positive for small insurance companies, which can now use professional investment agencies such as securities and fund companies to supplement their own shortcomings in investment skills and market information, allowing them to better control investment risk and obtain additional channels and opportunities for investment.

The announcement of these regulations and measures indicates that regulators are gradually relaxing restrictions on insurance industry investment. Insurance companies and insurance capital can now invest in the same sectors as securities companies, funds, trusts, private equity companies, and other financial institutions, which will enable additional investment of insurance company capital in equities, real estate, related financial products, and other alternative investments. And because the insurance industry has features that other financial sectors do not possess, this will greatly enhance the competitive advantage of insurance companies.

At the same time, we should recognize that the use of insurance capital is a double-edge sword. Returns on such investments depend on capital market and real estate market trends. If there are problems with the asset management and risk management of insurance companies, not only are higher investment incomes unlikely, but insurance companies may also be in jeopardy. In a national insurance industry briefing held on December 28, 2012, the CIRC presented the returns on insurance capital investment during the period of the Eleventh Five-year Plan. In 5 years, insurance institutions had achieved total investment returns of 720.12 billion yuan, amounting to average annual returns of greater than 6%. Broken down by year, returns were 5.8% in 2006, 12.17% in 2007, 1.91% in 2008, and 6.51% in 2009. One can see that investment returns were closely related to capital market trends.⁵ When the capital market was at its best in 2007, returns exceeded 10%. When the capital market was at its worst in 2008, returns reached less than 2%. A Huabao Securities report on investment-linked insurance shows that from January to August 2012, the average return for equity-type investment-linked insurance accounts was negative 2.3%. Although this far outperformed the capital market during the same period, it did not outperform the rate of return on demand deposits. China's economic situation and the development trend of the European debt crisis are still uncertain. Chinese real estate market controls will continue, and difficult-to-estimate potential risks place higher requirements on the risk management capabilities of insurance companies.

⁵ Impacted by the U.S. financial crisis and European debt crisis, the capital market fell from its 2007 high of 6124 points. Although it experienced a rally from October 2008 to August 2009, the overall trend was a market downturn.

Although the CIRC relaxed restrictions on the sectors, scale, and freedom of insurance capital investment, the regulator has not let down its guard against the risks in insurance company capital use. The newly introduced “Zichan peizhi guanli zhanxing banfa [Interim Measures for Asset Allocation Management]” clarifies the rules that funds accounts for which insurance companies partially or fully undertake investment risks (general accounts) and funds accounts where policyholders or beneficiaries directly enjoy all investment returns (independent accounts) must follow. The document requires that the targets of insurance capital investments be matched with the terms, structures, levels of return, and risk tolerance of different insurance products, forming a rational asset-liabilities configuration model. The document raises requirements on the risk management of investments for insurance companies, in particular by proposing a system of regular reporting, pushing insurance companies to further strengthen management and control of investment risks, and thereby facilitating improvement to insurance company management of assets and liabilities. “Interim Measures on the Investment of Insurance Funds in Bonds” and “Notice on Issues Relating to Insurance Funds Investments in Equities and Real Estate” also raise risk control requirements, establishing solvency and financial thresholds for companies investing in equities, real estate, insurance asset management products, and unsecured corporate bonds. If a company cannot meet requirements for solvency or certain financial indicators, it will no longer be permitted to make additional investments. These documents are to a certain extent forcing insurance institutions to increase the flexibility and efficiency of funds use and improve investment capabilities and risk controls.

Due to differences in risks and investment philosophies, investment companies will choose to invest carefully in the near term in order to prevent the risk of asset-liability mismatches, credit risks, and foreign investment risks brought on by new investment channels and tools. In the future, only by building sound risk management mechanisms and improving their abilities to prevent and withstand investment risks will insurance companies be able to take advantage of new investment channels and investment tools to truly improve the efficiency and profitability of insurance funds.

5.3.2 Solvency Risk

An insurance company's solvency refers to its ability to repay debt and is expressed in having sufficient assets to match liabilities and in particular fulfill obligations to pay out insurance funds or indemnities. Insurance company solvency can be divided into minimum solvency and real solvency. Minimum solvency is a solvency requirement that insurance companies must meet, i.e. a recognized level of assets and recognized difference between assets and liabilities that an accredited insurance company must meet throughout its existence. Real solvency is recognized capital after adjustment according to legal and auditing principles,

i.e. recognized capital minus recognized liabilities. An insurance company's recognized assets minus recognized liabilities must be greater than the amount set by insurance laws and regulations, or the insurance company is deemed insolvent. If an insurance company is unable to pay its debt with all of its assets, it faces bankruptcy, so solvency is a prerequisite for insurance company survival.

There are three main factors affecting the solvency of insurance companies. The first is capital strength, which is the foundation on which an insurance company is established and operates. Second is various reserve funds and guarantee funds. After an insurance company collects a large amount of premiums, it must draw various reserve funds and guarantee funds from the premium pool based on actuarial requirements and regulatory provisions in order to fulfill future compensation or payment responsibilities. Insufficient reserve fund withdrawals will affect solvency. But the actual mortality rate, morbidity rate, and payout rate of insurance products are better than the assumed rates, so the risk in this aspect is low. Third is investment income and the application of funds. In addition to reserve and guarantee funds, insurance companies have significant amounts of idle funds and therefore invest these funds in stocks, bonds, and other currency and capital market investments. A portion of the returns from these investments can be drawn and used as an accumulation fund. Increases to the accumulation fund mean more real capital and higher solvency.

At present, the CIRC regulates solvency according to class. Companies with solvency ratios below 100% are insolvent, and their businesses will be subject to certain restrictions. Companies with solvency ratios from 100 to 150% are companies of concern. The CIRC requires them to submit and implement insolvency prevention programs. Companies with solvency ratios greater than 150% are considered normal companies. The China Insurance Market Report 2012 shows that China's overall insurance industry is solvent. In 2011, the life insurance industry had a solvency surplus of 137.3 billion yuan. But the solvency of individual insurance companies is "not ideal." Listed company annual reports show that China Life's solvency adequacy ratio was 170.12% in 2011, a significant fall from 211.99% in 2010. Ping An's solvency adequacy ratio was 166.7% at the end of 2011. Through a pre-IPO shareholder capital increase and A-share and H-share listings, New China Insurance (NCI) increased its solvency adequacy ratio to 155.95%, slightly higher than the 150% threshold. Among the hundred-plus other unlisted insurance companies, some waver around the 150% level. But more than a dozen companies have fallen below the 150% level, such as Tian An Insurance and Jiahe Life Insurance.

In order to improve solvency adequacy ratios and prevent regulatory restrictions on their businesses, insurance companies have raised additional funds through equities and bonds in recent years. In 2009, the insurance industry raised 88.54 billion yuan, of which 74.04 billion yuan was equity financing and 14.5 billion yuan was subordinated debt financing. In 2010, the industry raised 86.51 billion yuan, of which 65.66 billion yuan was equity financing and 20.85 billion yuan was subordinated debt financing. In 2011, the industry raised 195.2 billion yuan, of which 137.45 billion was equity financing and 57.75 billion was subordinated debt

financing. Within equity financing, unlisted insurance companies raised 60.44 billion yuan, while listed companies raised 77.12 billion yuan. As of early August 2012, listed insurance companies had completed or announced 103.5 billion yuan in bond financing.⁶

This cycle of financing in recent years is mainly due to the rapid development of bankassurance. In order to meet the particular demands of banking customers, the vast majority of insurance companies have created three to 5 year deposit replacement wholesale payment (one-time payment) bankassurance products, mainly "wealth management" insurance products in dividends, universal insurance, and investment-linked insurance.⁷ Many insurance companies rely on sales of such products to vastly increase premiums. These products have little guarantee and short terms (as short as one or 2 years). As different categories of insurance products have different statutory reserve requirements, they occupy different amounts of capital. In the context of identical calculation of premiums, currently, mainstream short-term wholesale payment products in the bankassurance market occupy more than six times the capital of long-term, 10 year guarantee payment products. This model has led most companies to pin their hopes on "asset management" business earnings. If the capital market performs less than ideally, insurance company profitability will fall for that period, and the ability of insurance companies to fund themselves through their own profitability will fall, leading them to seek additional capital from shareholders or issue subordinated debt. In the current environment of a downturn in the real economy and depressed capital markets, insurance companies must rely on external financing, thus falling into a vicious circle of "financing→expansion→declining solvency→refinancing."

In the future, insurance companies should rationally plan their own business structures and fend for themselves through business transformation, business restructuring, improving the long-term balance of assets and liabilities, enhancing asset management capabilities, and expanding research and development of innovative products, or it will be difficult to break the "refinancing cycle." The CIRC is currently designing new oversight standards for the solvency system to be more

⁶ Source: Huang Lei, "Baoxianye shenxian xunhuan rongzi guaiquan, jianbing chongzu chao buke bimian [Insurance Industry Trapped in a Vicious Cycle of Circular Financing, M&A and Restructuring Inevitable]," August 29, 2012, Shanghai zhengquanbao.

⁷ The CIRC's 2012 annual report shows that participating insurance premium income accounted for 80.2% of life insurance premium income. In the life insurance market, the dominance of participating premium income is a prominent problem. There is insufficient development of products with long payment terms, strong guarantee functions, and which can satisfy the real guarantee demands of consumers. Because participating insurance has the characteristics of lower-limit gains and special dividends, the returns on capital use fluctuate. That is, capital market trends have an outsized influence on the stable development of participating insurance business and thereby on the stable development of insurance business. Because the stock market is in poor condition, insurance investment income has fallen. The China Insurance Annual Report shows that the trend of returning insurance policies continued unabated in 2011, with 95.8 billion yuan in insurance policies returned for the full year, a rate of 2.6%.

accurate, timely, and truly reflect the solvency of companies, thereby reducing systemic risk in the insurance industry. Overall, with the growth of insurance companies, insolvency risks must be monitored carefully.

5.3.3 Risk of Vicious Competition

In recent years, the number of Chinese insurance companies has increased rapidly, and competition has grown fierce in the insurance market. Some areas have seen excessive levels of competition where cost is not taken into consideration—high commissions, high returns, low rates, and expanded insurance liabilities. In particular, there have been significant irregularities in the operations of primary-level subsidiaries. Vicious competition impacts fee spread gains and losses, leading to misleading marketing and difficult-to-settle claims, thereby impacting the foundation for the healthy development of the industry. Vicious competition buries potential risks for the industry, undermining the foundation for the stable and sustainable development of the insurance industry.

First, commissions are too high. In vicious competition, insurance companies pay inflated commission rates, disrupting the price-rate system for insurance products. This is particularly true in the field of motor vehicle insurance (accounting for approximately 70% of property insurance market share). For the same risk indicator insured by different companies, the rate gap is too large.⁸ When pricing different insurance products, some companies mainly consider the degree of competition and the bargaining power of the transactional partner rather than carrying out scientific calculation of the actual risk indicators. In areas of moderate competition and little bargaining power, there is a certain degree of price discrimination against customers. For example, in coastal regions where competition is more intense, auto insurance rates are more affordable, despite more vehicle ownership, numerous new drivers, high car prices, and crowded roads. There is a greater probability of losses for the insurance company than inland, and customer acquisition costs are higher as well, yet insurance rates are lower. In a cutthroat competitive environment, in order to maintain and expand sales channels, sales and marketing costs rise continuously. Some auto insurance refunds are as high as 30–40%, and bank insurance agency fees are as high as 5%. High commission expenses swallow insurance agency profits, but also indirectly harm the interests of insurance customers because dishonest companies will manipulate claim settlement rates to win back profits.

⁸ Property insurance rates are composed of pure rates (expected loss) and additional rates (management fees, marketing expenses, etc.). With regard to the same risk object, the pure rate should be the same. The difference should be the additional rate, but the additional rate makes up a relatively small proportion of the overall rate. Therefore, the rate gap between two companies insuring the same object of property insurance should not be too large.

Second, there are problems with claim settlement. Looking at CIRC consumer complaints for the first half of 2012, claim settlement disputes were the most prominent problem of alleged violations of consumer rights in the insurance sector. Of these settlement disputes, 89.8% involved auto insurance. The main claims settlement complaints were as follows:

1. Disputes over approved losses. Problems in non-injury cases were concentrated around loss or repair of parts, replacement parts, whether replacement parts were 4S shop standard, and the customer being responsible for part of the cost of replacement parts. In cases of personal injury, problems were concentrated around deductions for medical expenses, differences in compensation standards between urban and rural areas, care standards, and other aspects of compensation.
2. Disputes over insurance responsibility. Disputes centered on consumer dissatisfaction over insurance company exclusions, deductibles and other claims handling issues.
3. Delays in claim settlement and other issues. When the two sides were unable to come to an agreement due to disputes over identification of responsibilities, price disputes, etc., companies would take a negative attitude, not reply positively, and not actively negotiate settlement, which was the main cause in delays in claims settlements. In addition, consumers submitted claims materials not meeting contract requirements. Some consumers stated that inability to provide some of the claim materials required by the company led to a stalled claims process. Some companies had lax claims management, sluggish internal coordination, and cumbersome procedures for accidents in other provinces, and some companies delayed settlement of claims where they had insufficient reason to make exclusions. All of these contributed to complaints. In addition, complaints about insurance companies also centered on not strictly enforcing the rate terms, refusing to cover compulsory traffic accident liability insurance, tying the sale of compulsory traffic accident liability insurance to commercial insurance, and other questionable practices.

There are several main reasons for difficulties in claims settlement. First, some companies do not have a full understanding of risk and have indifferent awareness of legal compliance and management. This is mainly shown in headquarters stressing premiums over compliance in the assessment of subsidiaries and not punishing illegal behavior in the sales and marketing process. Some companies even take an attitude of acquiescence or connivance. Second, some companies have weak internal controls. Internal control measures for key areas are imperfect or even absent. This can be seen in lax cost management. Some companies implement a cost contract system for subsidiaries in which the head office looks only at overspending, regardless of the true destination and use of funds. Subsidiaries can spend freely within the cost quota, which creates loopholes for off-books expenditures. In addition, many companies do not have internal auditing procedures in place and simply go through the motions of internal oversight, resulting in internal controls that exist in name only.

Third, misleading marketing is prominent. Looking at the CIRC consumer complaints report for the first half of 2012, one can see that misleading marketing is the most prominent problem in alleged violations of consumer interests in the life insurance sector. In terms of insurance class, participating insurance accounted for 62.36 % of complaints of misleading marketing, universal insurance accounted for 8.24 %, and investment-linked insurance accounted for 3.46 %. In terms of product, new life insurance products accounted for 74.05 % of complaints of misleading marketing. In terms of sales channels, bank and postal agents accounted for 48.6 % of complaints of misleading marketing and individual agents for 46.95 %, with complaints about bank and postal agents surpassing those about individual agents. There were several prominent misleading claims. First was promises of high returns or false reporting of actual returns. In recent years, returns on insurance investment products have been low, leading to more prominent problems with overstating returns. Second were one-sided comparisons of insurance products and other financial products, to the point of deliberately misleading customers into believing they were deposits, funds, or other financial products. Third was signing forms on behalf of clients, concealing contract content including initial fees and deductions, fee standards, free trial periods, etc.

The reason for the problem of misleading marketing is mainly uncompetitive products and serious homogeneity. Some life insurance products, mainly partial-return-type (dividend, universal, and investment-linked) have returns equal to or lower than bank interest rates, as well as poor liquidity, all of which are far from customer expectations. For the consumer, if there is no significant risk-protection function, and real yields are lower than bank deposits for the same period, the investment value and guarantee value of the product are unattractive, and the consumer will look elsewhere when selecting assets. At this point, unethical salespeople will often choose to mislead customers in order to meet performance targets. This is one reason the problem of salespeople misleading consumers has not been resolved. Other causes include progressively decreasing institutional execution, low costs of non-compliance, and insufficient regulatory deterrents.

In order to solve the problems of difficulties in claims settlement and misleading marketing, the CIRC in the first half of the year held a work conference on the comprehensive management of claims settlement difficulties and misleading marketing focused on investigating alleged violations in auto insurance claims and misleading life insurance marketing, as well as illegal behavior harming consumer interests. The conference expanded handling out of unsettled cases of property insurance compensation for losses and worksite inspection phase work for self-examination and self-correction work in misleading accident insurance marketing. It also increased penalties, raised costs for violation, and to a certain extent purified market operating conduct. In addition, the China Insurance Industry Association has set up a special insurance data platform to collect nationwide car insurance loss data and provide a reference for insurance companies. It also provides corresponding loss data to insurance regulatory agencies, providing a reference for insurance regulators in approving or filing rates for main categories of insurance. Through these measures, the various risks caused by vicious competition can

gradually be lowered. But it will be difficult to eradicate the quest for scale and market share. Long-term attention will be required to prevent risks from vicious competition.

Reference

Jiang Xianxue (2009) Zhongguo baoxian baozhang jijin zhidu yanjiu [The China Insurance Security Fund System], Xinan caijing daxue chubanshe

Chapter 6

China's Shadow Banking System and Its Risks

From a global perspective, the shadow banking system is a new concept but not a new issue. The shadow banking system refers to banking and financial institutions operating outside the existing banking regulatory system. The problem arose in the 1970s, but has developed rapidly in the twenty-first century. Global concern about the shadow banking system emerged after the shadow banking system triggered the U.S. subprime crisis and thereby the global financial crisis and the regulatory authorities of various countries attempted to conclude the financial crisis and pursue financial stability. At present, academia and global regulators represented by the FSB have defined the nature of the shadow banking system as a “bank credit intermediary.” The rough scope includes non-banking financial institutions that play a bank’s core functions (credit intermediaries) but are not subject to bank oversight (FSB 2011a, b).

Studies show that bank franchise value under certain historical conditions forms the basic power for shadow banks to duplicate banks. However, the conditions pushing such duplication to become a possibility also weaken the franchise value of commercial banks, thereby becoming a new financial operational and governance structure. At some stage, the shadow banking system becomes a true banking industry, preserving the financing and investment demands of the financial system (Zhou Liping, 2012).

China also has a shadow banking system in which non-financial institutions have sufficient power to copy banks. But China’s shadow banking system is an inevitable outcome of the initial stage of “disintermediation.” Capital outside the banking system is simply matched, i.e. financial market wealth management tools, without the overlay of advanced securitized and derivative products. Moreover, the majority of funds go directly into the real economy. Is China’s shadow banking system actually so large that it presents potential systemic risks? Should it be treated as a type of financial innovation and encouraged or regulated as high-risk business?

6.1 China’s Shadow Banking System: Size and Scope

6.1.1 Dispute Over the Size of China’s Shadow Banking System

In its “2012 Global Shadow Banking Report,” the FSB made a wide-caliber estimate of the size of the shadow banking system using non-banking financial intermediaries, and made an initial calculation of China’s shadow banking system. The report also made revisions based on core principles of playing the role of credit intermediary, having systemic risks, etc. The report pegged the final size of the shadow banking system at US\$ 400 billion, approximately 2.6 trillion yuan. From changes to the growth of the shadow banking system in FSB statistics, one can see that the growth of China’s non-banking financial institutions slowed significantly after the 2007 financial crisis (See Fig. 6.1). This differs from the views of some domestic scholars on the shadow banking system. Some Chinese scholars such as Liu Yuhui and industry insiders such as Xiao Gang say that China’s shadow banking system began to explode in scale after the announcement of the 4 trillion yuan stimulus package in 2009 and reached a scale of 2.6 trillion yuan by the end of 2012. Some Chinese scholars vary significantly from the statistics, calculated data, and statistical caliber of the FSB, indicating that their thinking is very different.

How the International Community Looks at the Shadow Banking System The FSB uses a “wide net, small fish” way of thinking. Beginning with a census of non-banking financial intermediaries of various countries, the largest caliber, it ultimately narrows the statistical caliber by looking at whether they possess maturity transformation and liquidity transformation functions, to non-bank credit intermediaries to determine the core shadow banking system (FSB 2011a, b, 2012a, b). Therefore, the FSB’s statistical methods in the 2012 Shadow Banking Report are not entirely suitable for China. But China’s official institutions have no clear definition or calculation of the shadow banking system. The statistical caliber of some scholars includes all credit business besides regular credit business, including

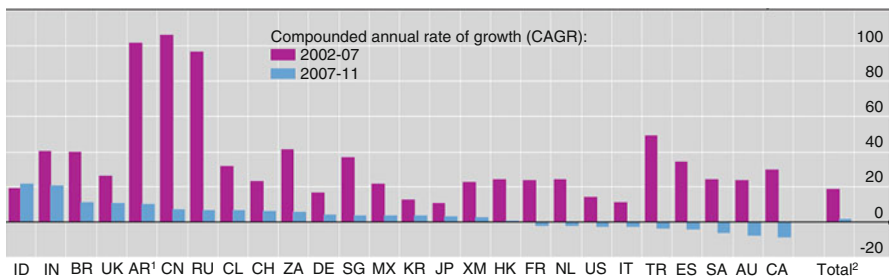


Fig. 6.1 Average rate of growth (%) of Non-Banking Financial Intermediaries (NBFIs) before and after the financial crisis (Note: CN represents China) (Source: Financial Stability Board “Global Shadow Banking Report 2012”)

bank shadow business such as bank-trust cooperation and bank financial products, as well as the credit business and private high-interest loans of non-bank financial institutions. The differences in statistical caliber represent two different understandings of the nature of the Chinese shadow banking system.

6.1.2 The Category of China's Shadow Banking System

From the narrow point of view of the category defined by the FSB, China's shadow banking system exists only in the form of informal securitized activities—off-balance-sheet activities of commercial banks such as bank-trust cooperation. A bank accepting a bill of exchange plays the function of credit creation. It is the classic model of bank credit creation. Other non-bank credit activities are private credit and are not part of the shadow banking system in the core sense of financial innovation. In broad terms, the shadow banking system includes all non-bank credit. In this case, the basic attitude toward the shadow banking system determines the definition of its category. The narrow understanding of the financial innovation perspective is conducive to the more standardized development of China's shadow banking system. Other negative understandings may directly constrain innovation in China's shadow banking system. In 2012, China's private credit powerhouse Wenzhou relaxed part of its policies with the aim of nurturing itself as China's "financial laboratory." This attitude basically shows China's firm support for financial innovation and inclusive stance toward innovation in the shadow banking system.

The basic function of the shadow banking system is to copy banks—playing the maturity transformation and liquidity transformation functions of banks using other forms of organization to provide private money. The key to these bank copies is that non-financial institutions can issue high-credit, high-liquidity, short-term debt. Given that China's interest rate is not yet fully market controlled, the high franchise value of banks, and the relative scarcity of credit resources, China's shadow banking system is a system of financial intermediaries linking those with excess capital and those with a shortage of capital in the credit market. It is an alternative to and a complement to traditional banking credit channels. Compared to Europe and the U.S., China's shadow banking system is still in its infancy. Non-banking financial institutions are still issuing credit-type short-term debt. A complete network centered on securitized assets and their derivative products has not formed. In the global shadow banking system network, China's shadow banking system is a system of non-bank credit intermediaries of relatively low complexity. Specifically, China's current shadow banking system mainly includes the off-balance-sheet business of banks—bank financial products and the credit business of non-bank financial institutions, the commissioned portfolio business of some companies, and private lending.

Off Balance Sheet Bank Credit Business

Bank Financial Products

Issuing financial products is a short-term measure banks are using to address financial disintermediation. It is also a means by which banks can enter the asset management industry. This method retains customer capital through means other than deposits to form a money pool to be invested in the currency market in which institutions are active and the real economy and other financial markets lacking regular credit support. Most maturity terms are short. As an emerging wealth management tool in China, the fundraising scale of the bank financial products market has already exceeded the total of peer Chinese industries such as securities investment funds, financial products of securities firms, and trust products. From 2010 to 2012, the number of financial products issued nearly doubled. In the first half of 2012, more than 12 trillion yuan of bank financial products were issued, growth of 40% over the same period in 2011 and equaling 12% of total deposits in the first half of the year. In the third quarter of 2012, banks issued a total of 23,858 financial products, surpassing the total issued in 2011. For all of 2012, there were no fewer than 300,000 products issued, raising no less than 20 trillion yuan. The relatively large scale of bank financial products illustrates a problem, which is that in the disintermediation process China's banks have used their own methods to retain disintermediation funds. In the same historical period, U.S. banks relied on negotiable certificates of deposit and other financial instruments.

Bank-Trust Cooperation Based on Asset Securitization

At present, Chinese bank-trust cooperation is very flexible. The most typical form is informal securitization. The bank, as the issuer, sells financial products to gather capital, which the bank as a single principal entrusts to a trust company to loan to target companies. This sort of bank-trust cooperation is not formal asset securitization, but it is a breakthrough for normal bank-trust cooperation in that the trust company receives funds from a bank in order to make bank loans. But in reality, banks do not truly transfer ownership of credit assets, but rather obtain short-term liquidity through the trust company in order to maintain existing customer relationships during a credit crunch. The trust company is simply an off-balance-sheet pipeline mechanism for the commercial bank to transform liquidity. Through such informal securitization cooperation methods, commercial banks transform real on-balance-sheet business into off-balance-sheet business. But at the same time they undertake the risk of credit asset default. The trust company does not undertake the risk of credit asset default, but rather only assists the commercial bank in achieving the off-balance-sheet operation of capital to maintain the bank-trust relationship and takes a small management fee

(0.02–0.1 %).¹ The main entity of this type of bank-trust cooperation is the commercial bank, and these are typical commercial bank off-balance-sheet activities.

Thus, these financial products are by nature concealed loans. Financial products are bank credit injected into the real economy, but they have not been entered into the bank's deposit and lending table. The commercial bank's real credit income nominally becomes off-balance-sheet shadow business.

Trust Credit Business

Broken down by entity, the credit system includes state credit, institutional credit, and individual credit. From a legal point of view, there is no essential difference between different types of credit. They are each rational and can promote prosperity in the economic system. Therefore, non-bank credit generally refers to credit issued by non-bank institutions and private credit having a rational basis for existence.

As typical non-bank credit the trust loans and trust company capital pool business (non-directional trust) provided by trust companies are the two main financing methods of China's local government financing platforms.

Trust Capital Pool Business Similar to fund business, trust companies raise capital from the market by setting a rough investment plan in order to form a pool of assets. Trust fund pool business is valued by expected rate of return rather than net profit. After fundraising, the trust company forms a portfolio at its own discretion and ensures financial equilibrium of the fund through rolling-issue financial products. This trust fund pool business is not limited to trust companies. In China there are also bank fund pool products. Other bank branches, such as private banking departments, investment banking departments individual finance departments, and various local branches also vie to establish their own fund pools with trust companies.

Non-Banking Institution Credit Business—"Commissioned Portfolio" Transactions of Large Corporate Entities

Non-banking institution credit business does not occupy a large proportion of non-bank credit in China, but it is worth following due to the momentum of its development and the potential risks. Due to their financial strength, large corporate entities have high credit ratings and can obtain high-quality funds. At present, the

¹In the absence of high profits, there is another background reason for trust companies to participate in informal securitization activities—that is, one of the existing management targets of trust companies is to expand the scale of trust business as far as possible. Based on this, the majority of trust companies are cooperating with commercial banks in their off-balance-sheet activities for small profits.

signs of the shadow banking system emerging among Chinese corporate entities are the “commissioned portfolio” in which large enterprises participate in some industries. Within this business, re-mortgage financing plays a typical credit creation function. Large enterprises with capital advantages and borrowing channels make proxy orders for companies with cash flow difficulties. A variety of financing-related business is derived from this capital chain, such as third-party guarantee companies, logistics companies, and warehousing companies. Such commissioned portfolio business has qualities of financing and leasing and is good for business development. But if illegal duplicate mortgages appear, excess credit will be created with no one to trace it back to, which will ultimately lead to risks for corporate entities and the possibility of a rupture in the debt chain. This model is similar to repo business and re-mortgage financing in the U.S. capital financial market, except that the collateral in China is the merchandise receipts of corporate entities, while in the U.S. it is often financial securities. Nevertheless, there is no difference in the essence of the two or their potential to pose systemic risks.

Private Lending

In accordance with a variety of country-specific factors, different countries have different laws and regulations regarding non-bank credit. Therefore, non-bank credit can be divided into legal and illegal non-bank credit. In China, high-risk private high-interest loans, illegal trade bills, and illegal fundraising and illegal lending by guarantee companies are all illegal non-bank credit. Existing law directly prohibits such non-bank credit, and these are illegal operations. But there is currently no sound monitoring system. Excluding non-intermediary lending between individuals, high-interest private lending and bank acceptance of bills of exchange exhibit typical credit intermediary qualities.

Private, high-interest lending is most active in the Yangtze River Delta region. Private businesses unable to obtain credit from proper channels are the soil in which such lending grows, but funding is not limited to local sources (it may come from other places in China).² The original operating model was to raise funds by offering interest rates higher than the market and then lend to local private businesses at rates far higher than market lending rates. As people have pursued new profit opportunities for surplus funds, other models of private, high-interest lending have emerged. In one, capital flows into real estate and other asset markets, driving up prices to obtain profit. Another caters to the off-balance-sheet lending needs of commercial banks by using the bank bill of exchange market to become a private acceptor bills of exchange and conducting financing for businesses and earning spreads and fees from discounting and rediscounting. The discounted funds are then used to issue high-interest loans.

² According to the survey, many outsiders doing business in the Jiangsu and Zhejiang region will recommend that friends enter into high-interest loans together to “get rich.” Therefore, therefore, local capital demand attracts private funding from across the country.

The preceding analysis shows that there is no sound monitoring system or statistics system for China's variety of shadow banking institutions and businesses, and there is no clear answer to the scramble for scale in the near term. Its objective role is to help unify understanding of the nature and category of the shadow banking system among various domestic parties.

6.2 Analysis of the Internal Causes of the Chinese Shadow Banking System

The shadow banking system is by nature of financial innovation meant to avoid regulatory oversight. China's is no exception. Shadow banking reflects the progress of financial innovation and technology, but it also exposes the shortcomings of the financial system and the room for arbitrage in the financial oversight system. Diversified economic development requires diversified high-yield financial products as well as multi-level credit supply mechanisms. China's financial reforms are not yet complete, and the shadow banking system has come about in a time of negative real deposit savings interest rates. It is an intrinsic response of the market economy toward the imbalance between volume and value in the currency market. Therefore, there is no "original sin" in the emergence of the shadow banking system, which was born from reforms to China's financial system. The main reasons for the development of China's shadow banking system are as follows.

6.2.1 A Dilemma for Macro-Control Policy Objectives

Under the dual goals of economic growth and currency stability, the government's macro-control policy is pulled in two contradictory directions. On the one hand, in order to maintain rapid economic growth, the government requires a multi-level financial services system and vigorous financial innovations. Credit from non-bank financial institutions is a useful supplement to credit from commercial banks and must be encouraged. On the other hand, the degree of market orientation of China's financial system is gradually improving. In order to ensure currency stability and financial stability, financial regulatory policy must control aggregate credit, monetary supply, and capital prices within the financial system in real time in accordance with China's national conditions rather than liberalizing the financial system in one step. Thus, government financial regulatory policy must encourage various kinds of shadow banking business in order to ensure growth, while also strictly controlling the formal credit system to ensure financial stability. A shadow banking system will inevitably emerge outside the constraints of the commercial banking system.

From a practical point of view of monetary control, since 1996, the People's Bank of China has used monetary supply as an operating target. Control of total credit is now used as a supplemental measure. At the same time, interest rates in the banking system and central bank have not been liberalized. As a result, the amount of money (the money supply and the total amount of credit rationing) and price (non-liberalized interest rates) are controlled at the same time, resulting in serious asymmetry between investing and financing activities in China. Those entities able to obtain credit through normal channels and those entities with qualifications to issue credit cannot cover all of the supply and demand for investment and financing in China. Local government financing platforms, real estate projects, and SMEs all demand additional credit. Due to the impact of macro-control policies, the credit they are able to obtain through formal credit channels is insufficient to meet their demands. The room for asset price inflation caused by imperfections in the system gives them sufficient motivation to obtain funds from the shadow banking system at prices higher than formal channels.

6.2.2 The Inherent Motivation for Non-Bank Financial Institutions to Replicate Bank Business

In theory, the franchise value of China's commercial banks is still high, and the costs of obtaining profit are low. At the same time, due to institutional constraints and inherent contributing factors, development of the main business of non-bank financial institutions is relatively slow. In other words, some institutions are not fulfilling the functions they should be fulfilling. With China's financial system entering the asset management era, there is significant room for profit in the asset management industry. In the context of an unclear legal institutional framework that divides operations by industries, non-banking financial institutions have been tacitly allowed to improve financial innovation and enter the asset management industry. By absorbing funds from bank disintermediation and entering the credit market, non-banking financial institutions are able to enjoy the dividends of China's economic growth.

In the context of the distorted macro-financial control system, China's shadow banking system and commercial banks are closely related, and they are mainly connected in the form of financial products. In the capital chain of some financial products, commercial banks provide fundraising services and obtain profits as intermediaries without undertaking risk. The difference from formal commercial bank credit lies in the destination of shadow banking credit, which flows to the sectors of the real economy prohibited by macro policy and which are prone to risk and bubbles. The willingness to take on risk has in reality allowed shadow banks to rob commercial banks of their "territory." Shadow banks have broken China's single means of obtaining indirect financing. Using the capital markets for backing or "cover," they carry out risky indirect financing with no lender of last resort.

The U.S. shadow banking system has already achieved market-based assets and liabilities. The liabilities end of China's shadow banking system has separated from commercial banks and other formal financing systems and obtained market-oriented financing through financial innovations: financial products of various types. But market orientation has not been achieved on the asset end, where shadow banks are encroaching on the main business of commercial banks in areas where they are not permitted to compete. The consequence of this long-term game is a high degree of competition and disorderly expansion in the credit market. Competition brings down lending prices and increases social welfare. But the consequences of disorderly expansion are very negative. Lending to anyone who meets the lending threshold will ultimately promote asset price bubbles and snowballing debt in certain sectors. This is certainly not the original intention of regulators in tacitly allowing the development of the shadow banking system.

6.3 Analysis of the Risks in China's Shadow Banking System

Because it is simply replicating bank business without the explicit support of the central bank as a lender of last resort, there are similarities in the risks of the shadow banking and formal banking systems, such as the risk of term mismatches and risks posed by leverage, but the risks in the shadow banking system are much clearer. At present, the degree of networking in China's shadow banking system is low, so systemic risks are few. The collapse of a single shadow banking institution is unlikely to lead to a crisis among all non-bank financial institutions. But if the government does not come to the aid of an institution in trouble, the risk of systemic shocks resulting from by panic-generated runs cannot be ruled out. Currently, the main risks in China's shadow banking system include: the risk of a run on financial products (liquidity risk), corporate default risk, and the systemic risk from the lack of a lender of last resort.

6.3.1 The Risk of Shadow Banking Business to the Banking System

First, the rolling issuance of financial products conceals the risk of a bank run. Banks place all funds raised from financial products into large capital pools for management. Theoretically, as long as a bank can use funds from customers purchasing new products to pay back products reaching maturity, the term mismatch problem can be controlled. But the targets of funds raised by bank financial products do not all currently provide stable income and cash flow. Most are high-risk industries that the formal credit system is prohibited from entering.

Rolling issuance will lead to increased corporate financing leverage multiples. If ultimately profits cannot offset the cost of investment, enterprises will be unable to avoid default, leading to liquidity risk and credit risk.

As a type of shadow financing, the risks from unsecured bank financial products will be drawn from off balance sheets onto balance sheets. In general, investors and banks themselves all tacitly agree that banks will guarantee their financial products. If there is a run on bank financial products, liquidity risk will erupt. If liquidity risk emerges, solvency risk and credit risk will rise significantly, causing a contagion effect, which may ultimately have a negative impact on the formal banking system.

Second is the risk posed by bank-trust cooperation business. While China's commercial banks and non-banking financial institutions are actively exploring off-balance-sheet, informal, securitized cooperation, they are also generating potential risks, such as the risk that bank-trust financial products will not be rationally deployed. Customers are not clear on the liquidity risks, credit risks, operational risks, and legal risks. Trust companies do not bear any clear default risk or market risk of investment failure. Banks potentially bear all risk of default on credit assets but spare no effort to conceal risks and avoid capital constraints. Such a financial innovation in essence does not reasonably allocate risks, and when risks erupt, they cannot be effectively resolved.

6.3.2 The Risk of the Shadow Banking System in the Trust System

Currently, many trust fund pools and trust loans backing local government financing platforms are invested in mid- and long-term projects, containing default risk and liquidity risk. The investment of funds in mid- and long-term projects is not the root cause of the risk. The root cause is that the development momentum of these companies may reverse due to current trends in the global economy and domestic economic development, turning long-term projects into failed projects from which companies are unable to recover funds. The size and speed of cash flow recovery is much lower than investment of funds for the same term, and there is serious risk of debt accumulation. Examples include a real estate bubble burst, as well as the mid- and long-term investments of companies whose exports will inevitably decline.

The relationship between the trust system's shadow banking system and local governments is also changing subtly. Because the central government has proposed taking strict precautions against local government debt risks, the current trend in local government financing platform development is no longer to be a hidden lender of bank loans, but to essentially allow shadow credit to enter the local real economy while not bearing ultimate responsibility in writing. The risk of a lack of lender of last resort is greater than the risk of the shadow banking system in the U.S.

6.3.3 The Systemic Risk of a Lack of Lender of Last Resort

Under the Chinese legal and regulatory framework, the central bank does not explicitly cover any of the shadow banking system as a lender of last resort, nor is there a market-based system of self-relief. The entire system is very fragile. Despite implicit guarantees in various bank-shadow credit relationships, these implicit guarantees may transmit risk to the commercial banking system, triggering a wider range of risks. The investment and operation of bank financial products is generally done off the balance sheet, and banks legally bear no responsibility for the risk. A run on bank financial products would inevitably lack a liquidity supporter of last resort. Even if they are supported by commercial banks, banks lack adequate economic capital to compensate for the risks. Therefore, the central bank must consider the systemic risks inherent in this model of investment.

6.3.4 The Risks of High-Interest Private Loans

High-interest private lending is an illegal form of shadow banking in China, posing legal risks. At the same time, due to lack of clarity in the capital chain and non-standard operations, high-interest private loans can easily generate liquidity risks, default risks, and other market risks. For example, with a structural adjustment to Chinese exports, many illegal high-interest private lenders have followed their customers to bankruptcy, and many private financing chains have been broken by market risk.

6.4 Regulatory Measures for the Chinese Shadow Banking System

The regulation of China's shadow banking system should not blindly copy the international experience. For China, maintaining oversight and controlling the systemic risks of the shadow banking system are necessary, but deepening financial and economic reforms would be more effective and suitable.

At present, regulators still have a positive attitude toward the shadow banking system because with China's low level of financial system development, the rational choice is to allow space for financial innovation. As a supplement to formal credit, the shadow banking system funnels money to the real economy, and its development should therefore be encouraged. However, because it is in the early stages of development, there are areas of high risk. And with significant room for profits, more and more capital will enter the shadow banking system. Therefore, China must monitor and regulate the shadow banking system and guard against the outbreak of systemic risk.

Its external operating features demonstrate the inevitability of the difficulty and high cost of overseeing the shadow banking system. From a cost perspective, the best method is market self-discipline or unified monitoring by regulatory authorities, neither of which are currently perfect. The competitive relationships among market entities are stronger than the cooperative relationships. Because they are in the early stages of development and have not encountered contagious risks, they have not recognized the long-term necessity of cooperation and self-discipline. But China's monetary authorities, despite imperfect statistics, have begun overseeing the shadow banking system. In view of banking and financial stability, regulatory authorities have also begun to resolve the financing difficulties of businesses from a long-term perspective and are attempting to bring the shadow banking system "into the light."

6.4.1 Summary and Assessment of Reform Measures

Recognizing that the shadow banking system has come into being under certain historical conditions and inherent contradictions between policy and economic development, as well as that the relationship between shadow banking system and formal bank credit cannot be severed, China's monetary authorities and regulators have employed both long-term and short-term regulatory measures. Long-term measures include continuing to promote market reforms of interest rates and attempting to eliminate the situation of dual-track interest rates. Short-term measures include resolving the funding difficulties of private businesses and promoting financial reforms in Wenzhou.

Market-Oriented Interest Rates

The shadow banking system is a result of dual-track interest rates and differences in lending rates. Money enters the shadow banking system at prices higher than market deposit interest rates and enters the real economy at prices no lower than the market lending rate. Competition in shadow banking is stronger than among commercial banks, but due to the system's opacity and lack of guarantees, it is full of risks.

Following the step-by-step liberalization of financial market interest rates and the introducing of the bank lending rate floor, the most recent reform measure has been to increase the degree of float of the bank deposit rate ceiling and the lending rate floor. This was the first time the deposit interest rate ceiling was allowed to float, and the policy signal was quite clear. In just 6 months, Chinese deposit-taking financial institutions stepped up competition for deposits. After the relaxation of the deposit rate ceiling, differentiated pricing immediately appeared among banks. According to the theory of financial repression, the fundamental role of interest rate liberalization lies in attracting and retaining deposits. But retaining deposits is

not a hard target of China's current market-oriented interest rate reforms. The liberalization of the deposit rate ceiling in the U.S. was a typical process of causal change. Constrained by the deposit rate ceiling, commercial banks were uncompetitive, and it was commercial banks that in turn called for relaxing the ceiling. China's market-oriented interest rate reforms are a typical process of compulsory change. In China, commercial banks have not forced regulators to do away with the deposit rate ceiling. Rather, the needs of the development of China's real economy have forced the change. Although indirect financing is very important for commercial banks, China's interest rate reforms will focus on long-term goals—i.e. the standard for the success or failure of interest rate market reforms is not the retention of funds in banks but rather improved investment and economic efficiency.

Wenzhou's Financial Reforms—A Process of Standardizing and Bringing Private Financing into the Sunlight

As a long-existing form of shadow credit, private lending has not exposed capital chain risks during China's period of high-speed economic development. But with China's overall economy facing structural transformation, large-scale outbreak of default risk is clearly exhibited in Wenzhou, the epicenter of China's private economy. China's private lenders and private businesses, both constrained by the official legal system, have appealed to liberalize the financial services system, hastening the birth of reforms of private finance in China.

In March 2012, the comprehensive financial reform pilot area of Wenzhou City was approved, and in November of the same year, Wenzhou released the "Zhejiang sheng wenzhou shi jinrong zonghe gaige shiyanqu shishi fang'an [Zhejiang Province Wenzhou City Comprehensive Financial Reform Pilot Area Implementation Program]." The basic policy objective was to upgrade Wenzhou's financial services business in order to build a foundation for industrial upgrading and the transformation of the local economic structure. In terms of the overall idea of the reforms, Wenzhou is a financial reform pilot area, carrying on the strategy of gradual reform of "crossing the river by feeling the stones." In terms of specifics, the main reforms include standardizing development of private finance, accelerating the development of new-type financial organizations, and carrying out pilot projects for individual foreign direct investment. Wenzhou, as the pilot area, enjoys special preferential financial reform policies, a special administrative management system, and a higher degree of openness to the outside world.

The push toward the formalization of the shadow banking system is a means of reducing systemic risk. However, one problem requiring reflection is that prior to Wenzhou's financial reforms, Wenzhou was part of the prosperous Yangtze River Delta economic zone, favored by the major banks, and near the international financial center of Shanghai. It should have had a rich supply of financial services, but private businesses still lacked financial support. Thus, it can be seen that a developed financial market and large number of banks failed to resolve the

financing difficulties of Wenzhou's private businesses. If the original private lending is formalized, will the banking entities comprised of these funds then avoid the private economy? If private lending is consolidated according to the existing commercial banking model, homogenized bank services will not have the desired effect. Therefore, the "pilot" nature of Wenzhou's reforms must be emphasized. The government should liberalize the pace of reform, give the market room to develop financial services, and allow the market to fulfill its inherent demand for capital based on its own innovative thinking. We must dare to break the existing organizational model for financial institutions rather than create additional homogenized commercial banks.

The two major current reforms mainly deal with intensifying contradictions between the current supply and demand of funds. There are clear short-term effects, and they will give the market rational expectations and give confidence to investors. But China's shadow banking system is a result of deep contradictions in the economic system and will require considering the role and position of the shadow banking system in China's overall economic and financial reform framework, and the use of long-term measures.

6.4.2 Long-Term Financial Reforms

First, China should improve the level of development of the financial system to service the real economy, which operates according to the market. There are systemic malpractices in both China's indirect financing and direct financing mechanisms. At present, China's indirect financing system (commercial banks and other financial intermediary systems) and the direct financing system represented by the capital market, have relatively complete hardware. China is home to internationally ranked listed banks and has its own main stock market, SME market, and growth market. But the overall operating level is not high. The most direct expression of this is that China has yet to build a true financial system with credit recognition and risk tolerance, and the quality of service in the existing financial system is low. Indeed, the shadow banking system is an innovative model linked to both direct and indirect financing. But its existence exposes the shortcomings of these two financing mechanisms. Therefore, when reform has risen to a certain level, improving the level of development and strengthening service capabilities within the existing financial system through micro structural adjustments is critical in order to avoid a large but undeveloped financial system.

Second, China should promote the rational development and rational prosperity of the financial market. The lagging nature of the demographic dividend has bought increased awareness of wealth management among Chinese citizens and a developed asset management industry. Improving the asset management industry in the long term will require expanding the breadth and depth of financial market development so as to provide better avenues for wealth management funds to support the virtuous circle of the real economy. Thus, China should provide the market with

financial wealth management products with stable cash flow, the repayment of which is supported by the real economy. For example, China can develop municipal bonds in order to turn the implicit debts of local governments into overt debts and eliminate their reliance on bank-trust wealth management and bank-trust loans and standardize their capital operations, thereby reducing the risk of bankruptcy for local governments. China can also explore loan securitization within a limited scope, establishing an asset securitization model suitable for the Chinese economic system.

Third, China should maintain a reasonable pace of urbanization. China's real economy has developed and expanded faster than its financial system. Given the strong demand of the real economy, funds from China's shadow banking system generally enter the real economy, in local real estate and infrastructure industries as a result of urbanization, for example. When the funds required for sprawling urbanization outstrip the abilities of participants to provide capital, a high level of innovation and high leverage levels result, leaving the system vulnerable to risk. Thus, the rate of urbanization should be constrained by the level of risk market entities are capable of bearing. Irrational expansion of urbanization by local governments should be contained.

Fourth, China should find a balance between oversight and the development of finance. In China, with oversight separated by industry, oversight of banks and non-bank financial institutions are two distinct affairs, and differing regulatory compositions mean differing space for innovation. The shadow banking system is a product of strict oversight of banks and weak oversight of non-bank financial institutions. Financial regulators around the world seek a balance between reasonable oversight of financial institutions and the level of financial innovation and the development of finance. China's shadow banking system is an innovative way to avoid oversight. It should be encouraged, but it must also be supervised. It should be the "source of innovation and the focus of regulation" (Li Yang 2011).

Fifth, China should address the methods and scope of the lender of last resort. As an innovative model, risk in the shadow banking system is inevitably great. Risk has been a "scarce resource" for which U.S. and European investment banks have competed. This is because when appropriate undertakers can be found to "comb through" market risks, there will be no market risk. Finding appropriate intermediaries to make market risks clear and disperse them will bring the system onto a path of healthy development. Given the relatively undeveloped nature of the market risk dispersal mechanism, those seeking financing in the shadow banking system, including local governments, commercial banks, and private businesses, must reveal all details. In this method, risk flows to the end, and the bearer is simply where the risk lands, rather than the result of combing. The policy burden will ultimately harm the interests of ordinary taxpayers. Therefore, in the long-term, China should clarify the methods and scope of the lender of last resort to give financial intermediaries clear expectations and thereby make market risks more explicit. If the shadow banking system is not permitted to be within the scope of relief of the lender of last resort, China must consider other market-oriented methods to reduce and disperse shadow banking system risks, such as allowing

qualified shadow banking institutions to engage in central bank open market operations, allowing them to raise funds from the wholesale capital market rather than relying on individual investors.

6.4.3 Urgent Short-term Measures

At the end of 2012, China's first bank financial product default occurred (Huaxia Bank Shanghai Jiading Branch's "Zhongding Wealth Investment Center Partner Plan"). Other financial products had potential repayment problems too, resulting in customers fleeing and suffering losses. The event highlighted the fact that risks in China's shadow banking system capital chain have reached a certain level. China's authorities must employ effective, short-term measures in response.

First, China should increase the transparency of shadow banking operations. Increasing transparency is the first step for regulating shadow banking in the international community. In China, the vast majority of use of funds plans for financial products are vague. The current shadow banking system also includes a variety of capital operating models and a variety of capital chains. Based on the institutions at which risk has already been exposed, China must make a detailed investigation of funding sources, uses, and operating models, and then clarify risk-taking and accountability mechanisms for investments.

Second, the shadow banking system should be isolated from the banking system and a firewall established. Banks selling trust company financial products on consignment, banks issuing financial products, banks guaranteeing financing from other institutions, and other such off-balance-sheet activities pose potential risks to commercial banks. China has no deposit insurance system, the legal system for bankruptcy of financial institutions is imperfect, and China has not implemented a "living will" requirement for systemically important financial institutions expecting to undertake risk. In this context, if risks break out in the shadow banking system and extend to commercial banks, contagion is inevitable, and the ultimate bearers of such risks will be the government financial administration and the central bank. Therefore, in the short term it is necessary to isolate the shadow banking and banking systems and establish a firewall to ensure the health of the on-book banking system.

Third, China should determine a reasonable degree of oversight and reasonable measures for non-bank credit activities. The direct cause of the outbreak of risk in the shadow banking system is excessive leverage. After becoming familiar with the various shadow banking operating models, China's regulators must focus on the asset side of shadow banking system operations. Due to differences among models, China should employ an appropriate level of oversight and suitable measures in order to reduce the speed of development and leverage level of the shadow banking system and prevent it from resulting in snowballing debt in the real economy. Only thus can China avoid default and runs on the financial products on the debt side of the shadow banking system.

Fourth, China should strengthen investor education and improve risk awareness. Investors must objectively understand the potential risks of the products they are buying and make a self-assessment of their risk tolerance. Given the lack of liquidity support that would be provided by a lender of last resort for the shadow banking system, investors must act as their own lenders of last resort, bearing investment risks themselves, thereby maintaining the stability of the financial system.

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Chapter 7

China's Real Estate Finance and Its Risks

Real estate is a pillar industry of China's national economy, and its stable and healthy development is a major issue for the national livelihood. As the blood of economic development, finance promotes and facilitates the booming real estate industry. With the deepening support of finance for real estate, financial risks are emerging in the industry. The global financial crisis triggered by the U.S. subprime crisis is a typical example. As market objects, financial products are both the targets of transactions and investments and carriers of risk. In large part, real estate financial product risks are the core of real estate financial risk. Therefore, we should attach great importance to the prevention of real estate financial products risk, draw profound lessons from the international experience, and establish a real estate financial products risk prevention system appropriate for China's national conditions in the hope that by reducing real estate financial risk, China can achieve greater financial support of real estate and promote the prosperity of the real estate industry. As typical representatives of the transformation of real estate financial products from traditional to innovative, the main risks faced by real estate credit, real estate securitization, and real estate investment bank-trust funds are the focus and breakthrough point of this study.

7.1 The Risks of Real Estate Credit

7.1.1 *The Product Operating Mechanism*

Real estate credit is the most basic real estate financial product. Banks as the main financial institutions fully play their role of capital dispatchers, investing idle funds from society in real estate production, operations, sales, and other segments in the form of loans, ensuring the smooth reproduction of real estate. The two most typical types of product are real estate development loans and individual housing mortgage

loans. The former are capital loans issued by financial institutions to real estate companies for use in specific real estate development and construction. These loans, combined with capital from real estate companies themselves, advance deposits, and other debts are converted into the value of the real estate project during the development process. The value is increased through the sale of the project, and principle and interest are paid. The latter are housing consumption loans issued by banks and other financial institutions to consumers for the purchase or construction of housing, which acts as the collateral. The mortgage form is often used, in which the real estate developer, bank, and consumer negotiate beforehand. Once the real estate developer and consumer sign a purchase contract, the consumer can use the housing purchase contract to apply for a mortgage from the bank. After going through the relevant collateral registration procedures, the bank issues a loan, which is transferred to the real estate developer in the name of the consumer, who repays the loan according to the loan repayment schedule.

7.1.2 *Micro-Level Risks*

Operational Risks

First, illegal lending is occurring in the formalization of pre-loan review. Pre-loan review is the first line of defense banks have to prevent credit risk. At present, some banks make a one-sided pursuit of loan quantity in order to improve performance, loosening pre-loan review and simplifying examination procedures. Risks are mainly shown in banks not deeply understanding a developer's operating conditions and use of funds, lack of careful analysis of the legality, feasibility, and profitability of the proposed project, illegally loaning to developers without the "four permits" or with project capital ratios less than 35 %, substituting real estate development liquidity capital loans for real estate development loans, not making a rigorous evaluation of the credit status and repayment ability of the borrower, reducing the proportion of down payment for individual housing mortgage loans, and issuing "emotional" loans. Such behavior increases bank credit risk.

Second, there are hidden dangers in the management of capital. First of all, there are risks in the valuation of collateral. A reasonable valuation of collateral directly affects the quality of credit assets. At present, the proficiency of China's credit valuation agencies varies, and there is a lack of corresponding oversight bodies, making it easy for valuations to be inaccurate. Some assessors ignore professional ethics and collude with lenders to falsely report collateral values, causing great losses to the bank. Secondly, there is a lack of communication and integration between banks and collateral management departments, resulting in duplicate, sometimes conflicting behavior. Disputes over collateral occur easily, affecting the handling of collateral and causing banks to suffer losses.

Third, post-loan supervision is lax and there are not enough means of handling risk. The Chinese real estate credit business management model is relatively

passive. Many banks place more emphasis on the loan issuance step at the expense of loan recovery. There is a lack of effective post-loan monitoring mechanisms, leading to a situation where loans are given freely but recovering them can be difficult. The problem is mainly expressed in lax enforcement of closed loan management, inattention to changes in the economic situation of the borrower, and a lack of risk warning measures. Only when a bank discovers a borrower is not repaying on schedule does the bank call or make a visit. When bad loans are created, banks only dispose of collateral to recoup their losses. This passive management model makes it difficult for banks to detect risks early, control risks, and reduce losses.

Liquidity Risks

The “soft assets, hard debts” characteristic of commercial banks means there will be mismatches between the terms, structures, and totals of their assets and liabilities. The conflict between short-term deposits and long-term loans impacts the liquidity of capital. During periods of market volatility, there are more defaults, and collateral can be difficult to quickly convert to cash. Bank capital chains may break, causing liquidity risk.

Internationally, liquidity risk is measured by the warning line of real estate loans accounting for 30 % of total bank credit assets. In recent years, the proportion of real estate loans in total bank credit has increased substantially in China, reaching 21 % in 2013.¹ China’s real estate mortgage market and asset securitization market are underdeveloped, affecting the handling of collateral, and making it difficult to quickly handle liquidity risk. In addition, there is a long-term structural imbalance for financing in the Chinese real estate market, with the majority of capital required by real estate companies coming from bank loans. There are two main reasons for this situation.

First, real estate developers have insufficient funds of their own. From Fig. 7.1 one can see that from 1997 to 2011, the asset-liability ratio of real estate developers remained above 70 %. The CBRC’s “Shangye yinhang fangdichan daikuan fengxian guanli zhiyin [Guidelines for Risk Management of Commercial Bank Real Estate Loans]” issued in August 2004 stipulated “banks should require that real estate developers applying for loans have a development project capital ratio of no less than 35 %.”² In accordance with this standard, the asset-liability ratios of such companies should be below 65 %, or below the horizontal axis in Fig. 7.1. Clearly, Chinese real estate developers are not meeting their capital requirements.

¹ Source: People’s Bank of China.

² Source: CBRC, “Shangye yinhang fangdichan fengxian guanli zhiyin [Guidelines for Risk Management of Commercial Bank Real Estate Loans]”.

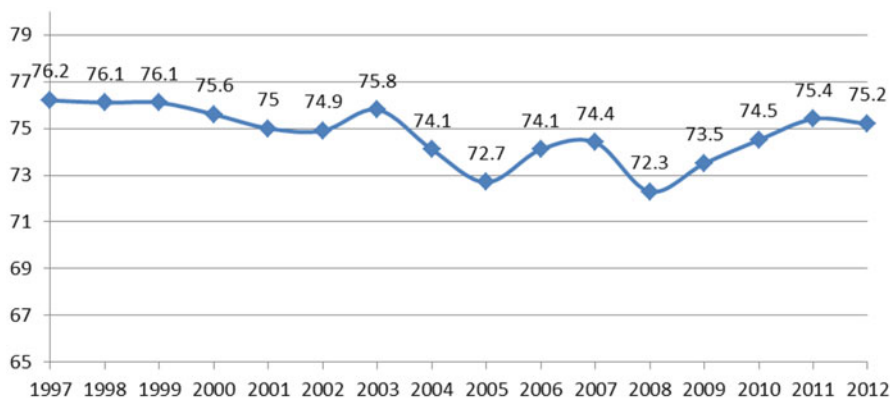


Fig. 7.1 Asset-liability ratios of Chinese real estate developers 1997–2012 (%) (Source: National Bureau of Statistics, “2013 nian zhongguo tongji nianjian [China Statistical Yearbook 2013]”)

Second, China's real estate financing channels are narrow. Although the development of China's capital market has opened financing channels for real estate companies such as the issuance of shares, bonds, and trust financing, these channels are subject to many restrictions or are underdeveloped, making it difficult for them to become the main channels of real estate financing. Bank credit has become the best channel for real estate company financing. The capital sources of Chinese real estate developers include domestic loans, foreign capital, funds raised by the company, and other capital. Table 7.1 shows capital sources for Chinese real estate developers from 1998 to 2013. From a perspective of absolute quantity, with the exception of the highly volatile use of foreign capital, the other three funding sources essentially maintained their growth. Table 7.2 analyzes the structure of real estate developer funding sources from 1998 to 2013. Judging from the average amount of funding, other capital sources occupy the greatest proportion of developer capital, followed by company fundraising, domestic loans, and foreign capital. Figure 7.2 shows the average proportions of real estate developer capital sources from 1998 to 2013.

Domestic loans mainly come from bank credit. Other sources are mainly composed of down payments, advance payments, and personal mortgage loans, with down payments and advance payments mainly coming from bank mortgages. Individual mortgage loans are provided directly by banks, so the majority of other funds can ultimately be traced back to bank credit. Other sources accounted for 5.45 trillion yuan in 2013. Of this, down payments and advance payments accounted for 3.45 trillion yuan and individual mortgage loans for 1.4 trillion yuan. These two together accounted for 89.06 % of other sources of capital.³

³ Source: National Bureau of Statistics “2013 nian quanguo fangdichan kaifa he xiaoshou qingkuang [National Real Estate Development and Sales 2013],” January 20, 2014.

Table 7.1 Chinese real estate developer capital sources 1998–2013. Unit: 100 million yuan

Year	Total capital sources	Domestic loans	Foreign capital	Company fundraising	Other capital sources
1998	4414.94	1053.17	361.76	1166.98	1811.85
1999	4795.90	1111.57	256.60	1344.62	2063.20
2000	5997.63	1385.08	168.70	1614.21	2819.29
2001	7696.39	1692.20	135.70	2183.96	3670.56
2002	9749.95	2220.34	157.23	2738.45	4619.90
2003	13196.92	3138.27	170.00	3770.69	6106.05
2004	17168.77	3158.41	228.20	5207.56	8562.59
2005	21397.84	3918.08	257.81	7000.39	10221.56
2006	27135.55	5356.98	400.15	8597.09	12781.33
2007	37477.96	7015.64	641.04	11772.53	18048.75
2008	39619.36	7605.69	728.22	15312.10	15973.35
2009	57799.04	11364.51	479.39	17949.12	28006.01
2010	72944.04	12563.70	790.68	26637.21	32952.45
2011	85688.73	13056.80	785.15	35004.57	36842.22
2012	96536.81	14778.39	402.09	39081.96	42274.38
2013	122122.00	19673.00	534.00	47425.00	54491.00

Source: National Bureau of Statistics “2013 nian zhongguo tongji nianjian [China Statistical Yearbook 2013]” and “2013 nian quanguo fangdichan kaifa he xiaoshou qingkuang [National Real Estate Development and Sales 2013]”

Table 7.2 Capital source structure for Chinese real estate developers 1998–2013. Unit: %

Year	Domestic loans	Foreign capital	Company fundraising	Other sources
1998	23.85	8.19	26.43	41.04
1999	23.18	5.35	28.04	43.02
2000	23.09	2.81	26.91	47.01
2001	21.99	1.76	28.38	47.69
2002	22.77	1.61	28.09	47.38
2003	23.78	1.29	28.57	46.27
2004	18.40	1.33	30.33	49.87
2005	18.31	1.20	32.72	47.77
2006	19.74	1.47	31.68	47.10
2007	18.72	1.71	31.41	48.16
2008	19.20	1.84	38.65	40.32
2009	19.66	0.83	31.05	48.45
2010	17.22	1.08	36.52	45.17
2011	15.24	0.92	40.85	43.00
2012	15.31	0.42	40.48	43.79
2013	16.11	0.44	38.83	44.62
Average Value	19.79	2.02	32.43	45.67

Source: Calculated from the data in Table 7.1

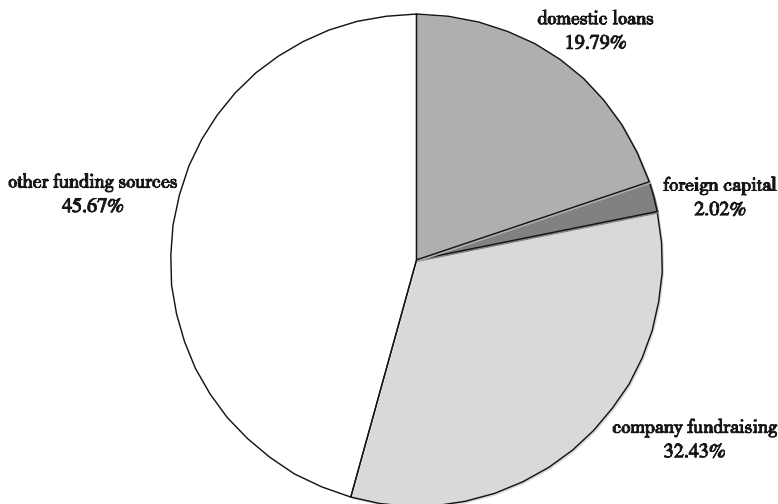


Fig. 7.2 Average share of Chinese real estate developer capital sources 1998–2013 (Source: Obtained from Table 7.2)

Therefore, assuming that 89.06 % of other capital was supported by bank credit in 2013 as well, we can obtain the following bank credit support rate for 2013:

$$\begin{aligned} \text{Bank credit support rate} = & \text{the proportion of domestic loans} \\ & + 0.8906 * \text{the proportion of other capital sources} \end{aligned} \quad (7.1)$$

According to Eq. 7.1 and data from Table 7.2, the bank credit support rate for the Chinese real estate industry was 55.85 % in 2013, accounting for over half of all capital. The Chinese real estate financing structure is unbalanced, with banks bearing the majority of real estate market risk. In significant market volatility, with prices plummeting and borrowers unable to repay on time, banks would face significant bad debts, which would pose a severe test for the capital chain and could easily lead to liquidity risk. Therefore, the potential risk posed by the unbalanced real estate financing structure is worth concern.

Operational Risks

Operational risks mainly come in the form of real estate development loans and are localized risks caused by developers. They refer to the real estate credit risks generated when in the process of development and construction a real estate company cannot repay its loans due to mistakes in decision making or management

or the occurrence of unexpected events that lead to trouble for the business. Some real estate companies lack an eye for the market, and develop projects that do not meet market demand, leading to an overstock of real estate, which puts the developer in financial straits. Other companies cannot complete projects on time due to management issues, resulting in unfinished projects. At other times, demand for real estate drops sharply due to unexpected events and companies cannot recover their capital. Such circumstances will all lead to a deterioration of the company's finances, resulting in bankruptcy in the worst cases. They ultimately result in losses for bank real estate credit business.

Credit Risk

Credit risk, also known as default risk, refers to the risk to a bank of a borrower being unable or unwilling to repay a bank loan. It is both the most important risk in the banking industry and the core risk facing real estate credit products. By definition credit risk can be divided into two categories: forced default risk and malicious default risk.

Forced default risk refers to the risk of loss to a bank from a borrower being unable to make payments on schedule or repay a loan at all due to the deterioration of his or her economic situation. For real estate loans, this risk mainly originates in the operational risks of real estate developers. From preparation, to project bidding, to development design, to construction, renovation, inspection, and sales, real estate development passes through many segments in a relatively long process. A problem in any part may trigger operational risks. If the weak capital chain of a developer breaks and the company is unable to repay loans on time or in full, the operational risks of the developer will quickly turn into credit risk for the bank. For individual housing mortgage loans, banks generally reference the income level of the borrower at the time of loan application to judge his or her repayment capabilities and determine the loan amount. But the maximum mortgage loan term is 30 years, during which time the borrower's income level will fluctuate according to uncertain factors such as the economy, business conditions, the borrower's own reasons, and emergencies. The borrower's ability to repay may fall, thereby resulting in forced default.

Malicious default risk results from the moral failure of the borrower, who causes risk of loss to the bank by falsifying information, fraudulently obtaining credit, or acting in bad faith, and willfully defaulting on his loan. This is also a moral hazard for the borrower. "Fake mortgages" are a typical example. In order to resolve funding shortages or transfer risk, some developers will use asymmetric information in the housing industry, lax oversight, and loopholes in examination procedures to apply for individual mortgage loans from a bank using fictitious entities or transactions and false information. Since the purpose of such loans is impure, once the developer runs into operational difficulties and cash becomes short, the

developer will cease repayment on the loan. Other developers have no plans to ever repay such loans, resulting in massive non-performing assets for the bank and seriously affecting the safe operation of the bank. “Fake mortgages” have caused extreme harm to China’s real estate credit business. According to statistics from the Industrial and Commercial Bank of China, 80% of its non-performing individual mortgages are caused by “fake mortgages” (Xi Zhenggang 2006).

Lack of transparency in Chinese incomes also increases the difficulty for banks in verifying the incomes of loan applicants, leading to asymmetry of information between banks and borrowers. Other borrowers have little awareness of how loans work, repaying when they remember, and making late payments when they do not, which is inconvenient for bank credit management, increases bank management costs, and impacts the liquidity of credit assets.

Overall, the harm of credit risk, particularly malicious default risk, to real estate credit business is significant. If effective measures are not taken to control such risks, bad debts will lead to liquidity risks and runs on banks, imperiling banks and even leading to bankruptcy. Therefore, banks should strengthen the prevention of credit risk.

7.1.3 Macro-Level Credit Risks

Policy Risks

Real estate is a policy-sensitive industry. Macro-economic policy adjustments and changes lead to fluctuations in the real estate market, posing risks to bank credit products. In order to curb housing prices, China at the end of 2009 began a new round of real estate controls symbolized by the “Guo si tiao [Four National Provisions].” Table 7.3 lists a series of real estate regulations introduced in China from December 2009 to December 2013. With coordinated industrial policy, land policy, financial policy, and tax policy, the real estate market gradually cooled, and signs of capital chain tension emerged at some developers, which sought to make up the funding gap through high-cost trust financing. Other small developers were forced to sell off equity or exit from the market. The funding difficulties of developers increased credit risk in the real estate industry. If a developer goes bankrupt, the pre-project loans provided by a bank will turn into non-performing loans, resulting in great losses for the bank. In August 2010 regulators issued a flurry of warnings about real estate credit and development loan risks. The CBRC began stress-testing banks. The results showed that a 30% drop in housing prices would not pose a substantial threat to bank credit quality.⁴ One can see that the

⁴Source: Tencent Finance, “Jianguanceng jingshi fangdai fengxian; ufen fangqi xianzijinlian duanlie yixiang [Regulators Warn of Real Estate Loan Risks; Some Real Estate Company Capital Chains Show Signs of Breaking].”

Table 7.3 Real estate control policies from December 2009 to December 2013 at a Glance

Type	Time	Document	Content
Industrial policy	December 14, 2009	State Council Executive Meeting: Guo si tiao [State Council Executive Meeting: Four National Provisions]	(1) Increase the effective supply of common commercial housing; (2) Continue to support residents in owning and improving their own homes and curb speculative investment; (3) Strengthen market supervision; (4) Continue to promote large-scale construction of affordable housing.
	January 10, 2010	State Council General Office: “Guanyu cujin fangdichan shichang pingwen jiankang fazhan de tongzhi (guo shiyi tiao) [Notice on Promoting the Steady and Healthy Development of the Real Estate Market” (Eleven National Provisions)]	Called for further strengthening and improving real estate market controls, stabilizing market expectations, and promoting the steady and healthy development of the real estate market.
	March 18, 2010	SASAC: Called for 78 non-real estate central enterprises to withdraw from the real estate industry within 15 days.	With the exception of 16 central enterprises determined to have real estate as their primary business, 78 central enterprises were asked to accelerate restructuring and withdraw from real estate business after completing the development of their own land and projects under construction.
	April 13, 2010	Ministry of Housing and Urban-rural Development (MOHURD): “Jiakuai baozhangfang jianshe ezhi fangjia guokuai shangzhang [Accelerate Construction of Guaranteed Housing; Curb Housing Prices]”	Called for accelerating the construction of affordable housing with a focus on public rental housing in the next phase; curbed housing prices in certain cities.
	April 19, 2010	MOHURD: “Guanyu jinyibu jiaqiang fangdichan shichang jianguan wanshan shangpin zhufang yushou zhidu youguan wenti de tongzhi [Notice on Further Strengthening Real Estate Market Supervision and Improving Issues Related to the Commodity Housing Sale System]”	Called for the strict implementation of a real-name system for commodity housing and disallowed the changing of the buyer name after purchase. Developers not obtaining pre-sale permits would not be able to collect or make disguised collections fees such as deposits and pre-determined payments through subscriptions, orders, queuing, issuing VIP cards, or other methods.

(continued)

Table 7.3 (continued)

Type	Time	Document	Content
	April 17, 2010	State Council: "Guanyu jianjue ezhi bufen chengshi fangjia guokuai shangzhang de tongzhi (xin guo shi tiao) [Notice on Resolutely Containing Housing Prices in Some Cities (New Ten National Provisions)]"	Called for curbing housing prices and implementing a more stringent, differentiated housing credit policy.
	June 12, 2010	Seven departments including MOHURD: "Guanyu guokuai fazhan gonggong zulin zhufang de zhidao yijian [Guiding Opinions on Accelerating the Development of Public Rental Housing]"	Intended to address the housing difficulties of China's low and middle-income urban families.
	September 18, 2010	Li Keqiang: Accelerate construction of public housing; resolutely curb speculative demand	Adhere to the principles of people-centric policy and governing for the people, promote affordable housing projects and accelerate the development of public rental housing.
	September 29, 2010	Relevant national ministries and commissions: Introduction of measures to consolidate the results of real estate market controls	Suspended the issuance of mortgages for third and greater homes; raised the down payment on first homes to 30%; placed limits on the number of homes that could be purchased by a family in cities with housing prices rising too quickly. Limited the number of homes that could be purchased by a resident in cities with housing prices rising too quickly. Adjusted preferential policies for deed tax and individual income tax in housing transactions.
	January 26, 2011	State Council General Office : "Guanyu jinyibu zuohao fangdichan shichang tiaokong gongzuo youguan wenti de tongzhi [Notice on Furthering Work on Issues Related to Real Estate Market Controls (New Eight National Provisions)]	Further implemented local government responsibility; increased efforts on the construction of affordable housing; adjusted and improved relevant tax policies and strengthened tax collection; strengthened differential housing credit policy; righted management of housing land supply; rationally guided housing demand; implemented a

(continued)

Table 7.3 (continued)

Type	Time	Document	Content
			talks and accountability mechanism for housing guarantee and stable housing price work; upheld and strengthened guidance of public opinion.
	February 26, 2013	State Council General Office: “Guanyu jixu zuohao fangdichan shichang tiaokong gongzuo de tongzhi [Notice on Continuing to Improve Real Estate Market Control Work]”	Improved the accountability mechanism for stable housing price work; resolutely curbed speculative housing purchases; increased the supply of general commercial housing and land; accelerated project planning and construction of affordable housing projects; strengthened market oversight and management of expectations; accelerated the construction and improved guidance of the long-term mechanism for the healthy development of the housing market.
Land policy	December 17, 2009	Five ministries and commissions: “Jin yi bu jiaqiang tudi churang shouzhi guanli de tongzhi [Notice on Further Strengthening Management of Land Transfer Revenue]”	Explicitly stated that when acquiring land, “the term length for installment payments for the total land transfer price in principle may not exceed 1 year; it may be agreed that special projects may take 2 years to pay the full price, with the first payment being equal to no less than 50 % of the total land transfer payment.”
	March 10, 2010	Ministry of Land and Resources (MLR): Emphasized oversight of real estate land and authorized unannounced inspections to:	(1) accelerate planning for housing supply land; (2) promote the effective supply of land for housing; (3) realistically strengthen the oversight of land for housing; (4) establish and improve a system of information disclosure; (5) carry out special inspections of prominent issues in land for housing.
	August 2, 2010	MLR blacklist of 1457 parcels of idle land	MLR has handed over a statistical table of 1457 parcels of idle land to the CBRC. The CBRC will make a comprehensive risk assessment based on this “blacklist.” 80 % of idle land may be reclaimed.

(continued)

Table 7.3 (continued)

Type	Time	Document	Content
	September 27, 2010	MLR, MOHURD: "Guanyu ji yi bu jiaqiang fangdichan yongdi he jianshe guanli tiaokong de tongzhi [Notice on Further Strengthening Management and Control of Real Estate Land and Construction]"	Carried out the tasks set out in "State Circular No. 10." Further strengthened management and control of real estate land and construction and actively promoted the continued improvement of the real estate market. Band acquisition of land idle for more than 1 year.
	September 19, 2012	MLR, MOHURD: "Guanyu jin yi bu yange fangdichan yongdi guanli fangu fangdichan shichang tiaokong chengguo de jinji tongzhi [Emergency Notice on Further Tightening Real estate Land Management and Consolidating the Successes of Real Estate Market Controls]"	Insisted on not relaxing real estate market controls; increased the supply of real estate land, improved program completion rates; continued to explore and improve land transaction methods, prevented high prices from stabilizing market expectations; strictly enforced existing policies and strengthened supervision to increase the effective supply of housing; strengthened monitoring and analysis and the dissemination of information to actively guide the market.
Financial policy	February 20, 2010	CBRC: "Liudong zichan daikuan guanli zanzheng banfa [Interim Measures on the Management of Working Capital Loans]"	Prohibited use of working capital loans for investment in fixed assets and investment, as well as fields and uses in which the state bans production and operation.
	April 11, 2010	CBRC: Banks are prohibited from issuing housing loans for investment or speculation.	Called for banking industry financial institutions to increase risk awareness and not make loans for speculative housing investment. If the nature of the purchase could not be determined, banks were required to significantly increase the down payment and interest rate and increase the enforcement of differential credit policy. Required down payments of no less than 40 % and loan interest rates priced in strict accordance with risks for families (including the borrower, spouse, and minor children) applying for a second mortgage to purchase a second (or third, fourth, etc.) home.

(continued)

Table 7.3 (continued)

Type	Time	Document	Content
	April 15, 2010	State Council Standing Committee: Down payment of no less than 50 % required for purchase of second homes	Required a down payment of no less than 50 % for loans for the purchase of second homes and interest rates no less than 1.1 times the benchmark rate.
	April 17, 2010	State Council: Loans for third homes can be suspended in areas with high housing prices	Allowed banks to suspend the issuance of loans for third (and higher homes in accordance with risk in areas of high housing prices, in areas of rapidly rising housing prices, and in areas of tight supply; suspended the issuance of housing loans for non-local residents unable to provide proof of local taxes or social insurance contributions.
	June 4, 2010	Three ministries and commissions: Clarified standards for individual mortgages for second homes	The number of homes of a family should be identified based on the actual holdings of homes of the purchasing household (including the borrower, spouse, and minor children) for the purpose of commercial individual housing loans.
	July 12, 2010	CBRC: No wavering from strict enforcement of differential mortgage policies	No change to the requirements or standards of differential mortgage policies; commercial banks must continue to strictly enforce policies regarding loans for second homes (and above).
	November 3, 2010	Four ministries and commissions: Full stop on provident fund loans for third homes	Placed a full stop on provident fund loans for third homes and increased the down payment for provident fund individual housing loans for second homes to 50 %.
	July 1, 2013	State Council General Office: “Guanyu jinrong zhichi jingji jigou tiaozheng he zhuanxing shengji de zhidao yijian [Guidelines for The Adjustment, Transformation, and Upgrading of the Financial Support Economic Structure]”	Seriously implemented real estate control policies, implemented differential housing credit policy, strengthened name list management, strictly prevented and controlled real estate financing risks.
Tax policy	December 9, 2009	State Council Standing Committee	Returned the exemption period for individual housing transfer sales tax from 2 to 5 years; continued other housing consumption policies.

(continued)

Table 7.3 (continued)

Type	Time	Document	Content
	December 23, 2009	Ministry of Finance, State Administration of Taxation: Adjusted individual housing transfer sales tax policy	Beginning January 1, 2010, individuals selling non-ordinary housing they have owned for less than 5 years must pay the full sales tax; individuals selling non-ordinary housing they have owned for 5 or more years or ordinary housing they have owned for less than 5 years must pay sales tax based on the difference between income from the sale and the price of the home at purchase; individuals selling ordinary housing they have owned for 5 or more years are exempt from sales tax.

Source: Compiled from data from the websites of the relevant ministries

impact of policy on real estate credit risk should not be underestimated, and we must pay close attention to regulatory authorities.

Risk of Bubbles

The risk of bubbles refers to the risk of fluctuations in real estate prices creating bank credit losses. The supply and demand relationship affects real estate prices. But what is different from the supply and demand mechanism for ordinary products is that real estate demand and price move in the same direction, while real estate supply and price move in the opposite direction. When housing prices rise, people expect prices will continue to rise, and demand for housing increases. Looking for higher returns, owners of real estate are hesitant to sell, reducing supply. The two forces together push prices sharply upward, which in turn confirms people's expectations. People will continue their previous behavior, resulting in an irrational rise in housing prices and the formation of a bubble. When the bubble breaks and housing prices fall, people expect prices will continue to fall, and owners of real estate are willing to undersell, increasing real estate supply. The demand side waits on the sidelines, reducing demand. The two work together to sharply decrease housing prices, which meets with expectations. Property owners sell in a panic, resulting in an irrational fall in prices. One can see that expectations greatly increase the volatility of real estate prices and act as both the foundation on which bubbles form and the root of the increasing risk of bursting bubbles.

Chinese real estate bubbles come mainly from cost push and demand pull, as well as institutional drivers. In terms of cost push, real estate prices include the cost

of land. The limited nature of land resources and the additional demand from Chinese urbanization both push land prices, and thus real estate prices, higher. In terms of demand pull, the rapid growth of China's economy has on the one hand increased the wealth of Chinese citizens, thereby pushing up demand for real estate consumption and investment. On the other hand, excess liquidity in the financial system seeks an exit, and real estate has become a channel of release. Participation in finance has supported the realization of the housing purchase and investment demands of Chinese citizens, pulling real estate prices upward. Finally, in terms of institutional drivers, local government revenue comes in large part from land transfers, and real estate development also contributes to the improvement of the urban landscape. Local governments, therefore, hope to keep the real estate boom going. These three forces have inflated a Chinese real estate market bubble. Table 7.4 and Fig. 7.3 compare housing prices and incomes from 1998 to 2013.

Table 7.4 Comparison of Chinese real estate prices and incomes 1998–2013

Year	Sales price (yuan/ square meter)	Per capita disposable income of urban residents (yuan)	Price: Income ratio
1998	1854	5425.1	11.39
1999	1857	5854.0	10.57
2000	1948	6280.0	10.34
2001	2017	6859.6	9.80
2002	2092	7702.8	9.05
2003	2197	8472.2	8.64
2004	2608	9421.6	9.23
2005	2937	10493.0	9.33
2006	3119	11759.5	8.84
2007	3645	13785.8	8.81
2008	3576	15780.8	7.55
2009	4459	17174.7	8.65
2010	4725	19109.4	8.24
2011	4993	21809.8	7.63
2012	5430	24564.7	7.37
2013	5850	26955	7.23
Average	3331.69	13215.50	8.92

Note: The price-income ratio is calculated based on a 100 square meter home and a family of three. The equation is as follows

$$\text{price-income ratio} = (\text{residential sales price} \\ * 100) / (\text{urban per capita disposable income} * 3) \quad (7.2)$$

Source: Calculated based on data from the China Statistical Yearbook for 1999–2013 and 2013 nian guomin jingji fazhan wenzhong xianghao [National Economic Development Steady and Better in 2013]

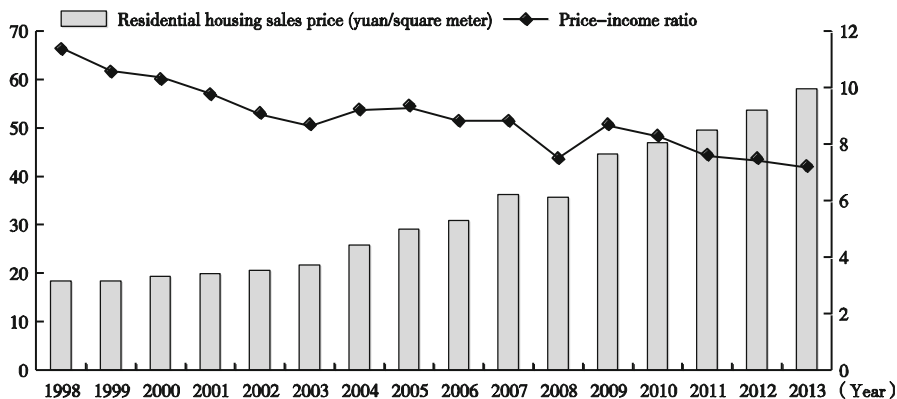


Fig. 7.3 Ratio of Chinese residential housing prices to incomes 1998–2013 (Source: Obtained from Table 7.4)

The real estate price-income ratio can measure speculative demand in the formation of real estate bubbles. A higher indicator reflects greater speculation in the real estate market and a higher possibility of a bubble. Studies show that a ratio higher than 6.0 indicates the presence of a real estate bubble. Ratios remaining over 10.0 indicate a severe bubble (Zhang Zhonghuo et al. 2009). From Table 7.4 and Fig. 7.3, one can see that the ratio was above 6.0 from 1998 to 2013, indicating that there was a certain bubble in the Chinese real estate market. The indicator was above 10.0 from 1998 to 2000, indicating a serious bubble over those 3 years. The average real estate price to income ratio was 8.92 from 1998 to 2013, near the serious bubble level of 10.0. China must pay serious attention to real estate bubbles.

The risk of bubbles has a significant impact on bank credit products. A bursting real estate bubble would lead to a series of adverse consequences: the collapse of real estate demand, the pressure on developers of a large backlog of real estate, continuously falling real estate prices, the possible breaking of developer capital chains, inability of banks to reclaim loans, and a large volume of non-performing assets. Due to the housing downturn, the value of mortgage assets would shrink dramatically, and banks would suffer heavy losses. In a serious downturn, banks could experience liquidity risk, leading to financial crisis. Table 7.4 shows the proportion of real estate loans in total financial institution loans for 2004–2013. The indicator monitors the extent of the real estate bubble from the level of credit support for the real estate industry and also reflects the risk of a bubble in real estate credit. A high value indicates bank credit is highly concentrated in the real estate sector, and a bursting real estate bubble will mean greater losses for banks, so the risk from the bubble is greater. In general, a value above 10% indicates a small real estate bubble, and a value above 20% indicates a serious real estate bubble. From Fig. 7.4 one can see that this value remained above 10% from 2004 to 2013 and

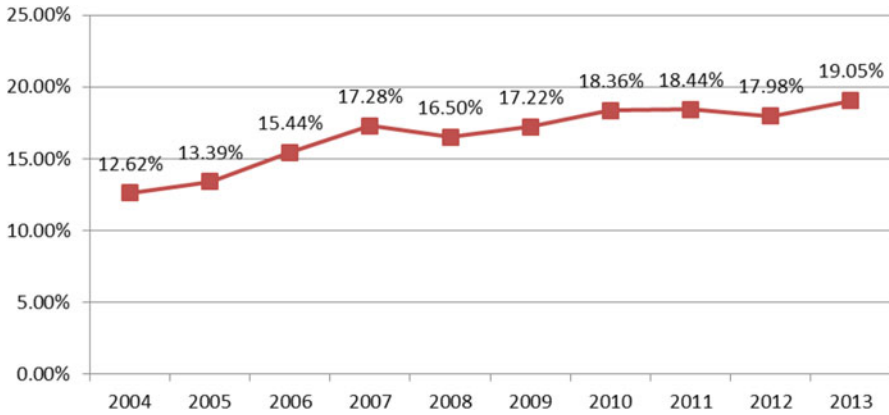


Fig. 7.4 The proportion of real estate loans among total financial institution loans 2004–2014 (Source: Calculated from the “Zhongguo huobi zhengce zhixing baogao [China monetary policy report]” for 2004–2013 and people’s bank of China statistics for the same period)

reached 19.05 % in 2013, indicating a significant risk from the real estate bubble to Chinese bank credit products.

7.1.4 Transmission Mechanism for Real Estate Credit Risks

As mentioned previously, real estate credit products face six major risks. These risks are not mutually separated, but closely linked. They are transmitted among participating entities through real estate credit products. Fig. 7.5 shows the transmission routes for real estate credit product risks, as well as the links between the various risks.

First, from a macro perspective, policy risk often triggers asset bubbles. Market participants general adopt their actions in accordance with their expectations about the target market, and these expectations are to a large extent impacted by macro policy orientation. In different policy contexts, participants will choose the strategy most beneficial to themselves. For example, when macro policy supports real estate development, market participants have a positive outlook on the real estate market. Real estate companies will increase their development efforts, residents will have exuberant demand for home purchases and investment, and financial institutions will issue numerous loans. If market participants overreact to these expectations, a bubble will be created. The inflation of the bubble will attract the attention of

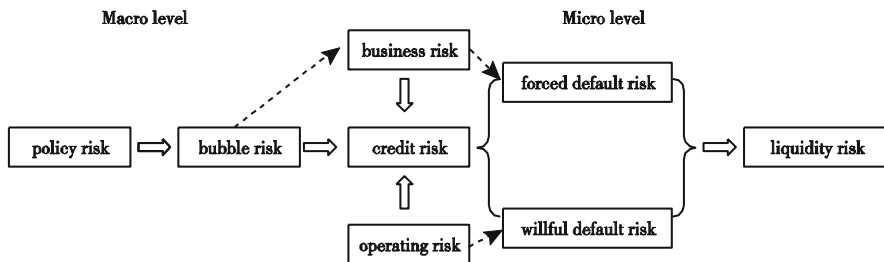


Fig. 7.5 Real estate credit risk transmission flow chart

regulators, and macro policy will shift. The expectations of participants will again change, and they will adopt austere behaviors, bursting the real estate bubble.

Second, on the micro level, credit risk is the core risk to real estate credit products. Bubble risk, business risk, and operational risk will all lead to credit risk. First, when real estate companies experience business risk, cash flow becomes tight, and they cannot repay loans on time, triggering forced default risk. Second, when bubble risk emerges, on the one hand, market demand contracts and real estate companies have poor sales and face business risks, leading to forced default. On the other hand, real estate prices will fall sharply to less than the amounts of the loans covering those assets, and borrowers will stop repayment, resulting in willful default. Third, when banks experience operational risk, insufficient examination of the loan qualifications of borrowers and lax oversight will significantly increase credit risk, especially the risk of willful default. Therefore, credit risk is the most concentrated expression of real estate credit risk.

Finally, liquidity risk is the type of risk real estate credit products most need to guard against. When credit risk results in a large amount of bad debt at banks, it leads to liquidity risks. If market players have pessimistic expectations, they will lose confidence in banks and trigger a run. Banks may go bankrupt. In a domino effect, this can even trigger a financial crisis.

Therefore, the different types of risks to real estate credit products are linked and interact. When guarding against credit risk, we must focus on the overall situation, grasp the key problems, and defeat them one by one.

7.2 The Risks of Real Estate Securitization

7.2.1 The Product Operating Mechanism

Real estate securitization is a product of the organic integration of the real estate market and stock market. It mainly includes the two categories of securitization of real estate mortgage loans and the securitization of real estate assets (see Fig. 7.6).

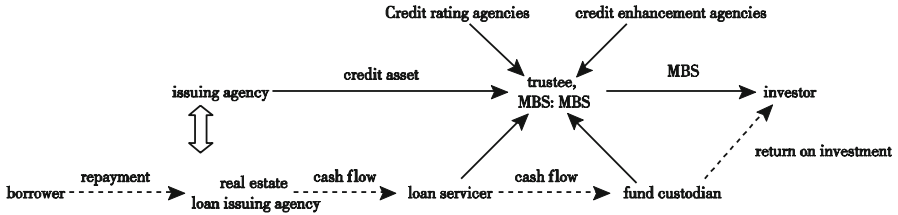


Fig. 7.6 Chinese real estate mortgage loan securitization flowchart
 Legend:

1. The initiating agency, the real estate lender, transfers credit assets to a trustee by establishing a special purpose trust. China’s initiating agencies are banking industry financial institutions
2. The trustee is responsible for managing the special purpose trust property and issues mortgage-backed securities (MBS)
3. Credit ratings agencies are responsible for issuing ongoing MBS credit ratings
4. Credit enhancement institutions provide a certain degree of credit protection for other participants in credit asset securitization transactions through internal credit enhancement (such as overcollateralization) and external credit enhancement (such as guarantees), and undertake corresponding risk
5. The loan servicer is responsible for managing the loan, collecting principle and interest, and providing regular reports to the trustee
6. Funds custodians are responsible for managing trust property funds, paying investment income to holders of securitized products, and providing regular funds custody reports
7. The solid line shows the relationship between the various players. The dotted line shows the cash flows of real estate mortgage loan securitization

Real estate securitization helps to ensure the capital circulation of real estate companies and accelerate cash flow. It helps strengthen the liquidity of real estate mortgage loans and real estate assets and decentralize bank credit risk. It helps promote the development of the real estate capital market and expands available investment channels. But it should be noted that in addition to decentralizing risks, real estate securitization also expands the scope of risk transmission. Through securitized products, real estate market risks are spread to the securities market, and securities market risks will also spread to the real estate market. Thus, if the risks of real estate securitization cannot be effectively monitored and curbed, greater losses will result.

7.2.2 Micro-Level Risk Issues

Base Asset Quality Risk

In real estate securitization, assets with similar characteristics, such as real estate mortgage loans and real estate assets, are packaged and divided into equal shares or homogeneous bonds and issued to investors. The risks of real estate securitization products mainly lie in the quality of the underlying assets. In real estate mortgage loan securitization, for example, the credit of the borrower in a high-quality real

estate credit asset is often good, and the collateral is complete and of stable value. Therefore, a securitized product developed from this will also have stable cash flow and be of low risk. Asset securitization is still in its infancy in China, and the main measure for controlling securitized product risk is to ensure the quality of the underlying assets, curbing the risk at the source. In the process of real estate asset securitization, China's institutions should first work with top-quality assets. After accumulating ample risk management experience, they should then attempt to gradually introduce new, complex, securitized products with lower-quality underlying assets. But the prerequisite is control of the total and proportion of securitized non-performing assets in order to ensure the safety of securitized products.

Risk from Speculation

The high profitability of the real estate industry has attracted a large amount of speculative capital. Before securitization, the main form of speculation was in real estate itself. Some companies, groups, and consortia with ample funding used their own funds or borrowed funds to buy and sell real estate, pushing up prices. Post-securitization, the sources of speculative capital are broader. Banks raise large sums of capital by transferring creditor's rights and property rights to trustees through real estate companies. With lax supervision, banks and real estate companies may divert these funds, which should be used for real estate credit or real estate development, to speculate on real estate. Therefore, at the beginning of real estate securitization, when there are still regulatory loopholes, banks and other credit institutions and real estate developers are all potential speculators. A sufficient amount of speculation will increase the risk of a real estate bubble. If the bubble bursts, not only will traditional real estate lending products suffer losses, but the value of securitized products with underlying real estate and real estate credit assets will also shrink, and investors will suffer losses.

Risks from Financial Intermediary Operations

As a complex financial innovation, the successful operation of real estate securitization requires the cooperation and coordination of asset assessment agencies, credit ratings agencies, accounting firms, law firms, and other financial intermediaries. China's financial intermediaries are still in their infancy, and there are a number of problems. First, the overall proficiency of financial intermediaries is low. Management quality at financial intermediaries is uneven, and because real estate securitization involves specialized knowledge from multiple fields, the industry requires talent of diverse backgrounds. Second, the honesty of financial intermediaries is concerning. Take credit rating agencies, for example. Scientific and objective credit ratings are integral to the success of securitized products and are also an effective means of protecting investor interests. China's credit rating institutions lack unified industry standards and a strict regulatory system. They may be seduced by other interests and make unfair ratings of securitized products contrary to good

faith, impacting investor judgment. Even more serious is that if the impartiality of credit rating agencies is widely questioned, the development of real estate securitization will be impacted.

7.2.3 Macro-Level Risk Issues

Price Risk

Real estate securitization involves multiple markets, including the real estate market, the primary real estate mortgage loan market, and the securities market. Securitized real estate products will experience ups and downs under the impact of these markets. Income from securitized real estate products originates from the operating profits of real estate companies. When real estate prices fluctuate significantly, real estate operating profits fall, leading to lower returns for securitized products, or even losses. Similarly, when real estate mortgage loan securitization experiences problems in the real estate market and real estate mortgage loan market, prices will be affected. Fluctuations in the securities market will directly trigger price volatility for securitized real estate products.

The most direct expression of market volatility is the volatility of commodity or asset prices. Any commodity or asset price is measured in monetary terms, and interest rates are the price of money-capital. Therefore, price risk in real estate securitization is actually interest rate risk.

First is the impact of interest rate risk on the real estate market. Changes in interest rates will affect investment in fixed assets. When interest rates are high, on the one hand, real estate developer loan costs and capital opportunity costs are relatively high, which will reduce the scale of investment and cut down on the supply of real estate. On the other hand, because the cost of borrowing has increased, housing purchasers and speculators will have less demand for housing. The latter has the greater impact on the real estate market and may trigger falling housing prices, which will significantly devalue securitized real estate products.

Second is the impact of interest rate risk on the market for real estate mortgage loans. Raising the deposit reserve ratio tightens the liquidity of banks, reducing the size of bank loanable funds, resulting in a corresponding reduction in the scale of real estate mortgages. Increasing loan interest rates may trigger credit risk among borrowers, generating non-performing loans, which may cause losses for securitized products with such loans as their underlying assets.

Third is the impact of interest rate risk on the securities market. Normally, interest rates and securities prices move in opposite directions. When market interest rates rise, stock market investors pull out vast quantities of capital in search of higher returns or to lower the cost of borrowing, resulting in falling securities market prices. In addition, in the stock market, rising interest rates add to the financing costs of listed companies, causing corporate profits to decline and reducing dividend payouts. This also triggers declines in securities prices. Price risk is the

main risk to securitized real estate products, and interest rate changes are the root cause of price risk.

Institutional Risk

The institutional risks to real estate securitization are mainly related to the accounting system, tax system, and guarantee system.

The Accounting System The Ministry of Finance's "Xindai zichan zhengquanhua shidian kuaiji chuli guiding [Pilot Accounting Rules for Credit Asset Securitization]" issued in May 2005 initially clarified the problems in the handling of accounting for issuers of credit asset transactions, among them, the issue of measuring the risk of credit assets. This directly relates to whether credit assets should be separated from the balance sheet, and thereby relates to the interests of the issuer. This is because the goal of the issuer in asset securitization is to improve returns from the asset by handling them off the balance sheet. There is currently no unified standard for the measurement of risk. Different approaches lead to different results, which is obviously not conducive to the development of real estate securitization.

The Tax System "Caizhengbu, guojia shuiwu zongju guanyu xindao zichan zhengquanhua youguan shuishou zhengce wenti de tongzhi [Notice from the Ministry of Finance and State Administration of Taxation on Policy Issues Related to Credit Asset Securitization]" issued in February 2006 stipulates that securitized credit assets are currently exempt from stamp duty, losses from credit assets can be deducted from the corporate income taxes of the issuing institution, and corporate tax is not collected in the trust segment on the portion of trust project proceeds in obtaining that year's asset support securities institutional investor allocation. But under current tax law, if credit asset transfers are defined as on-balance-sheet financing, the issuing institution, in addition to paying corporate income tax, is also subject to withholding tax, and the transaction costs of real estate securitization may be high. In addition, currently, the trustee, loan servicer, fund custodian, and other asset securitization intermediaries and institutional investors must all pay sales tax and income tax. The overall tax level for participants in asset securitization is not low, which affects the enthusiasm of participants and is not conducive to the promotion of securitization.

The Guarantee System Credit enhancement is a necessary condition for the smooth advancement of real estate securitization. Guarantee is a common means of credit enhancement. In other countries, in order to promote the development of real estate securitization and enhance the appeal of the market, government institutions often provide guarantees, enhancing the safety factor of securities. But Article VII of China's Securities Law clearly states, "A government agencies may not act as a guarantor." Thus, there is a legal barrier to the government

providing a guarantee for real estate securitization. Moreover, China lacks an explicit guarantee system for movable property, with no unified registration authority and no uniform or clear registration management regulations. These problems have all restricted the implementation of real estate securitization.

7.3 The Risks of Real Estate Investment Trusts

7.3.1 Product Operating Mechanism

Real estate investment trusts (REITs) have been the most rapidly developing innovative product in real estate finance in recent years. Figure 7.7 illustrates the basic operating process of a REIT. First, the issuer often establishes a REIT with real estate as the underlying asset. Doing so transforms an illiquid, long-payback-period real investment into a highly liquid, securities investment that may be withdrawn from in advance. Second, REITs assemble capital by issuing beneficiary certificates or fund shares. The former is a contractual REIT, while the latter is a corporate REIT. Owners obtain returns from the beneficiary certificate or REIT shares. Third, an asset management company is responsible for the operation of fund capital. The management company conducts operation and management of the REIT itself and the property it holds, investing mainly in real estate management and real estate mortgages, but also possibly participating in real estate securitization. The remaining small percentage may be used to buy government bonds and other assets. Fourth, the trustee is the core party of the REIT and is responsible for the custody of fund assets and holding trust assets on behalf of investors. When the REIT requires debt, the trustee handles loan procedures on behalf of the REIT.

Strictly speaking, China’s market has no true REITs, but it is exploring REITs at a faster and faster pace. Whether the 2005 listing of Guangzhou Yuexiu Real Estate Investment Trust in Hong Kong or CapitaLand China’s 2006 on-shore model, there have been many milestones in China’s development of REITs. In 2007, the People’s

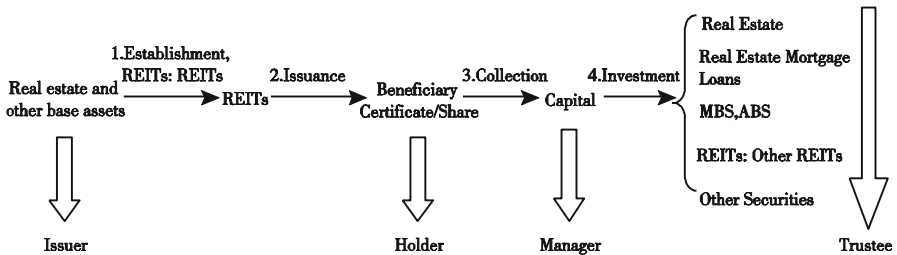


Fig. 7.7 REIT flowchart

Bank of China, CBRC, and CSRC carried out REIT pilots. The introduction of REIT products such as the Lingui Fund, Huaqiaocheng Financing Project, and Lianhua Xintuo have provided valuable experience for the rollout of true REITs. In August 2010, the central bank approved Tianjin's debt-type REIT pilot program, with affordable housing as the underlying asset.⁵ One can see that REITs have become an inevitable trend of the development of China's real estate industry. In the rollout process, China must pay attention to adapting products to its macroeconomic environment, as well as to monitoring and preventing risks.

7.3.2 *Micro-Level Risks*

Fund Operations Risk

The actions of managers directly impact the level of return and risk of a REIT. The first risk is that of investment decisions. Decision-makers mainly make mistakes for two reasons. First, decision-makers violate normal decision-making procedures, deciding the investment orientation of capital or loans for themselves. Losses result when they make the wrong decisions. Second, the decision-making body lacks proficiency and the quality of business is insufficient, leading to decision-making errors. The second risk is day-to-day management. In the operation of the fund, managers must pay attention to preventing liquidity and financial risks. There are two causes of liquidity risk. First, because REITs lack stable debt support, they cannot get working capital at a reasonable price. Second, because they are investing in real estate projects, payback periods are long. Particularly in the case of non-performing assets, investments can be difficult to recoup, leading to payment difficulties. Financial risk results from a lack of periodic analysis and financial evaluation of financial indicators such as debt ratios, costs, and losses. In such circumstances, financial risks remain hidden, leading to a long-term accumulation of risk.

Moral Hazard

Moral hazard in REITs is mainly reflected in two areas. First is internal moral hazard, or trust risk. The REIT operating principle is a principal-agent relationship, and a sound mechanism must be developed to address the problem of asymmetric information. China's REITs are still in their infancy and lack a standard operating model and sound checks and balances. Fund managers may make allocations regardless of the interests of investors, seeking their own profit or personal gain. For example, a manager might illegally invest in his own real estate or real estate

⁵ Source: Tencent Finance, <http://finance.qq.com/a/20100802/003084.htm>

companies with which he has a relationship and profit from the transaction. In another example, a manager may compete as an individual with the REIT he manages in order to have real estate with potential acquisition value. Therefore, establishing effective incentive and constraint mechanisms, enhancing transparency of information, and making manager and investor interests consistent are problems needing to be resolved in the development of REITs. The second moral hazard is external: the credit risk of targets of investment. When investing in a real estate company, existing shareholders may encroach on the interests of the fund or put the funds earnings into arrears due to poor management. When investing in real estate mortgage loans or securitized real estate products, borrower credit risk may lead to a fissure in REIT cash flow, making it difficult to continue operations. Therefore, before making an investment decision, a thorough investigation and risk assessment of the target must be made. After investment, monitoring must continue in order to reduce the impact of external moral hazards to REIT operations.

7.3.3 Macro-Level Risks

Interest Rate Risk

First is the impact on expected REIT returns. Higher interest rates cause the net present value of real estate to fall. Housing prices will fall, and rents will also fall, thereby decreasing expected REIT returns, for which rental income is a main source of revenue. The price of the REITs will also decline. Second is the impact on REIT liabilities. Higher interest rates raise the cost of financing for a REIT, harming cash flow. Last is the impact on listed REITs. Higher interest rates lead to an exodus of capital from the stock market and lower prices for securities. The trading price of REITs will be affected.

Exchange Rate Risk

The strong performance of the Chinese economy is actually a risk. China's continued surplus in the balance international payments means the international community generally expects appreciation of the yuan. From exchange rate reform in 1994 to the end of September 2011, the yuan climbed 36.9% in value against the dollar. In anticipation of yuan appreciation, large amounts of hot money entered the Chinese market, and real estate became a target of hot money speculation, pushing up housing prices. After the expected level of appreciation is reached, hot money will exit the market, and vast amounts of property will be dumped, causing housing prices to fall. Real estate volatility will increase, posing operational risks for REITs.

Legal Risks

Legal risks are the main risks racing China's REITs. Legal risks mainly come in the form of a lack of laws specific to REITs and obstacles within the existing laws. At present, China lacks specific laws supporting the operation of REITs. REITs are different from traditional real estate trusts as well as from securities investment funds, and therefore, neither the Trust Law nor the Securities Investment Fund Law applies. China needs to establish a specific law or use the Industry Investment Fund Law to give REITs legal recognition. In addition, specific policies, rules, and standards should be established for the operations, tax structure, property rights registration, and risk oversight of REITs to normalize the concept. Existing law also contains obstacles to REITs.

First are obstacles in the trust legal system. REITs are mainly aimed at small investors and have few requirements on income level. Current trust law, "Xintuo gongsi jihe zijin xintuo jihua guanli banfa [Approaches for Trust Company Collective Capital Trust Planning and Management]" stipulates, "Natural persons in a single trust scheme shall not exceed 50 people, but no restrictions are placed on the number of natural person investors with entrusted funds of more than 3 million yuan or qualified institutional investors." Those meeting the following three conditions are considered qualified investors. "Natural persons, legal persons, or other legally established organizations investing a minimum of 1 million yuan in a trust scheme; natural persons who as individuals or households have financial assets exceeding 1 million yuan in the subscription period and are able to provide proof of this property; natural persons who as individuals have had annual personal income exceeding 200,000 yuan over the last 3 years or a combined income exceeding 300,000 yuan over the past 3 years as a married couple and who can provide proof of such income." One can see that these provisions for investor income are too high, restricting the number of people able to invest in a trust scheme, which is not conducive to the popularization of REITs.

Second are obstacles in the tax system. The biggest advantage of REITs is tax policy. At present, China's laws regarding real estate are complex and the overall tax burden is too heavy. Trust Law stipulates that when a principal transfers assets to a trust company for management, the principal must pay sales tax. When the trust contract is terminated and the principal takes his assets back, the trust company must pay sales tax again. This raises the issue of double taxation. High income taxes shrink the room for profitability for investors, weakening enthusiasm for institutional operations. Thus, to encourage the development of REITs, China should institute tax incentives as soon as possible.

7.4 Establishing a Scientific Risk Prevention System for Real Estate Finance

7.4.1 Strengthening Government Oversight to Prevent Policy Risk and Bubble Risk

Maintain Targeted, Appropriate, and Coherent Policy Controls to Prevent Policy Risk

Appropriate adjustments through economic measures, administrative measures, and legal measures are necessary conditions for the sustained, stable, and healthy development of the real estate market. When the real estate market is too hot or too cold, government macro controls are very important. But several points are worth attention.

First, different levels of adjustment and control policy measures must be employed for different real estate financial products. The government should formulate different risk monitoring and management programs for the risk particularities of different products and carry out multi-level risk management. The more complex the real estate financial product, the more complex are the risk factors, the higher the degree of risk, and the greater the harm. The regulatory means and adjustment and control measures employed must then be sounder and more flexible.

Second, the government should choose progressive adjustment and control methods, select appropriate timing and strength of control efforts, and adhere to the principles of gradual and moderate actions. The government should consider the inertia of policy and select the appropriate time to take action. Eagerness for quick success or too much regulation can lead to a real estate market slump, which would be contrary to the intent of the regulation, resulting in excessive government intervention in the market.

Third, the government should pay attention to the long-acting mechanism of policy and maintain continuity of policy implementation. During public decision-making, not only must the public consider previous and current government policies, but it must also consider the impact future government policies will have, and the effects of their own actions on government decision-making. Here, inconsistencies in the timing of government policy appear, impacting the effectiveness of policy. There is also a time lag problem, which obscures the short-term impact of policy. Thus, in the regulation process, in order to maintain the coherence of policy implementation, the government must pay close attention to market dynamics, properly assess the effectiveness of implementation, and avoid large fluctuations and repeated changes to policy, which can trigger excessive or insufficient regulation and result in market turmoil and increased market risk.

Improve the Real Estate Bubble Risk Monitoring Indicator System to Prevent Bubble Risk

China's real estate market early warning system mainly exists on the city level. Its main functions are to collect and report accurate, comprehensive, and timely real estate market information to provide reference data for governments, enterprises, and citizens and guide real estate market participants to make rational consumption and investment decisions. Using the data provided by the system, borrowing from mature, international risk monitoring systems and integrating with China's national conditions, we can establish a real estate bubble risk monitoring indicator system to more objectively and dynamically monitor and manage real estate market bubbles and achieve early detection and early response to such bubbles. In terms of the obtainability and comparability of data, China's real estate and financial product risk monitoring indicators should include three categories: price indicators, demand indicators, and supply indicators (the specific risk monitoring system can be seen in Table 7.5).

Our indicators system uses GDP, total social investment, real estate investment, income levels, price levels, bank credit, and other data to more comprehensively measure the real estate market from the perspectives of price, demand, and supply in order to provide support data by which to effectively judge the size of the bubble. The establishment of the real estate bubble risk monitoring index system has greatly enhanced the forward-looking nature of regulation and has been conducive to accurately grasping the market situation and promptly taking appropriate measures to prevent risk.

7.4.2 Enhance the Self-Discipline of Financial Institutions to Prevent Operational Risk

Government regulation and control policy is passed from top to bottom, while the effects of policy are fed back from bottom to top. The effectiveness of regulatory policy on the real estate financial market mainly depends on the enforcement of government policy by financial institutions. Thus, strictly preventing real estate financial product risk not only requires strong government regulation, but also active cooperation with financial institutions in order to ensure the achievement of risk prevention goals. Both real estate credit operational risk and real estate securitization and REIT operational risk by nature come from the non-compliance of internal management at financial institutions. Financial institutions should refer to industry regulations and formulate specific practices under the national legal framework. They should clarify business processes, act strictly in accordance with the rules, improve self-discipline, and build a first line of defense against real estate financial product risk.

Table 7.5 Real estate bubble risk monitoring indicators

Indicator		Formula	Use	Indicator value
Price Indicator	Housing price-income ratio	Average annual housing price/average annual earnings	Measures the ability of residents to pay for housing. Aimed at excessive speculative demand.	$X > 6.0$ indicates a housing bubble; $X > 10.0$ indicates a serious bubble.
	Housing price-CPI sync rate	Housing price growth rate/CPI growth rate	Measures the rate of growth of real estate prices relative to price index growth.	Monitors the real estate bubble trend. Real estate price growth greater than 10%; $X > 4.0$ indicates a real estate bubble.
	Rent-sales ratio	Housing price growth rate/housing rental growth rate	In normal circumstances, rents and housing prices growth in the same proportion. The higher this indicator is, the further rents and housing prices are drifting apart and the larger the bubble.	$X > 2\%$ indicates a slight bubble; $X > 5$ indicates a serious bubble.
Demand indicator	The rate of synchronicity between real estate sales and total social retail sales	Growth rate of commercial housing sales/Growth rate of total social retail sales	In the stage of accelerating urbanization, it is reasonable for the former to be higher than the latter. But too large a separation in the long-term indicates a bubble.	$X < 2$ indicates no bubble; $2 < X < 4$ indicates a slight bubble; $X > 4$ indicates a serious bubble.
	Rate of synchronicity between mortgage loans and per capita income	Mortgage loan growth rate/per capita income growth rate	Reflects the degree to which bank credit is supporting real estate demand, and indirectly reflects the degree of bubbling. The higher the indicator, the better the foundation for the formation of bubbles. The greater the concentration of bank lending in the real estate industry, the greater the bubble for banks.	$X > 2$, slight bubble; $X > 4$, serious bubble.

(continued)

Table 7.5 (continued)

Indicator		Formula	Use	Indicator value
Supply indicator	Investment indicators	Real estate investment/GDP	Reflects the degree of concentration of social capital in the real estate industry. A large indicator shows overheating in real estate investment and the existence of a bubble.	$X > 8\%$, bubble; $X > 10\%$, serious bubble.
		Real estate investment/total investment	Reflects the concentration of total social investment in the real estate industry.	$X > 20\%$, bubble.
		Real estate investment growth rate/GDP growth rate	Reflects the endurance of the macro economy and the purchasing power of real estate.	$2 < X < 3$, slight bubble; $X > 3$, serious bubble.
		Real estate investment growth rate/total fixed asset investment growth rate	The higher the indicator, the more overheated real estate investment is, and the larger the bubble.	$X > 2$, bubble.
Bank credit indicators	Real estate loans/total bank loans	Reflects the degree to which bank lending supports real estate demand. The higher the indicator, the greater the bubble risk faced by banks.	$X > 10\%$, slight bubble; $X > 20\%$, serious bubble.	
	Real estate loan growth rate/Total bank lending growth rate		$2 < X < 2.5$, slight bubble; $X > 2.5$, serious bubble.	
Housing vacancy rate	(Floor area of vacant housing in the reporting period/supply of commercial housing in most recent 3 years) * 100 %	Reflects real estate market speculative demand by way of real estate market supply. It is a lagging indicator for measuring real estate bubbles.	$0 < X < 5\%$, insufficient vacancies;	
			$5\% < X < 14\%$, reasonable vacancies;	
			$14\% < X < 20\%$, excessive vacancy, bubble;	
			$X > 20\%$, serious backlog, large bubble.	

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Chapter 8

Institutional Construction (1): Financial Macroprudential Management System

The Chinese government has learned from the financial crisis that preventing and managing systemic risk is the core maintaining the stability of the financial system. Thus, China has begun to focus efforts on improving financial system reforms and the financial regulatory system, especially the establishment and launch of the macroprudential framework. The Twelfth Five-year Plan clearly proposes establishing a macroprudential management framework, which will be a wide-ranging framework and institutional reform of far-reaching impact. It will also be an institutional guarantee of financial stability in China. At the same time, the People's Bank of China and industry regulators are working to establish the macroprudential framework and strengthen microprudential standards.

8.1 The Status Quo and Its Problems

8.1.1 *China's Financial Prudential Supervision and Its Problems*

Prior to 1978, because banks were only social cashier departments, the highly centralized planning system of the time did not require banking oversight and management. Although there were inspections to ensure that central planning was being carried out, this was far from regulation in the modern sense. From 1978 to 1992, the People's Bank of China underwent a period of unifying regulation. The reforms of 1978 transformed the face of Chinese finance, and during this period, a vast number of banks and non-banking financial institutions were resumed or rebuilt, and China's financial regulatory system began to take shape. Of course financial regulation during this period was not financial regulation in the modern sense. The third phase of financial regulation is the period of regulation by industry

that has lasted from 1992 to present. The China Securities Regulatory Commission (CSRC) was established in 1992, the China Insurance Regulatory Commission (CIRC) in 1998, and the China Banking Regulatory Commission (CBRC) in 2003. In this stage, regulation by industry has been gradually improved, and remarkable achievements have been made in the financial legal system. Regulatory measures have been improved and regulation strengthened, forming a prototype of modern financial regulation.

Bank Capital Adequacy Ratio Regulation

Capital Adequacy Ratio Regulation at Chinese Banks

Market-oriented reforms of Chinese banking have been ongoing for a relatively short time. For some time, Chinese banks were an extension of government, and loans were made mostly out of political considerations with little regard for market demand. But once China joined the World Trade Organization, Chinese banks faced competition from foreign banks. Thus, in order to supplement the capital of the Big Four state-owned commercial banks, China began injecting capital into state-owned banks through the financial administration and stripping them of non-performing assets in order to improve their capital adequacy ratios. In March 2004, China formally implemented “Shangye yinhang ziben chongzuli guanli banfa [Management Approaches for Commercial Bank Capital Adequacy Ratio Management].” The Approaches stipulated that banks had until January 1, 2007 to reach their capital adequacy ratio target, which was the 8 % recommended by the Basel Committee. Those banks unable to reach the target by the specified date had to have a feasible capital supplementation plan. After several years of adjustment, Chinese banks have made great progress in terms of their capital adequacy ratios. The CBRC’s 2012 annual report shows that as of the end of 2012, the overall weighted average capital adequacy ratio of Chinese banks was 13.25 %, a 0.54 percentage point increase over the previous year, and the weighted average core capital adequacy ratio was 10.62 %, up 0.38 %age points from the previous year. The capital adequacy ratios of 509 banks exceeded the international regulatory level. Core capital adequacy ratios have also been improving (see Fig. 8.1).

The Effectiveness of Chinese Capital Regulation

The starting point for regulators regarding the capital adequacy ratio is to restrict excessive risk among banks. But in previous sections we have pointed out that while regulators can restrict the overall amount of capital banks use to make risky investments, there is nothing stopping bank managers from putting their allotted capital into riskier assets. Thus, capital regulation may result in riskier behavior.

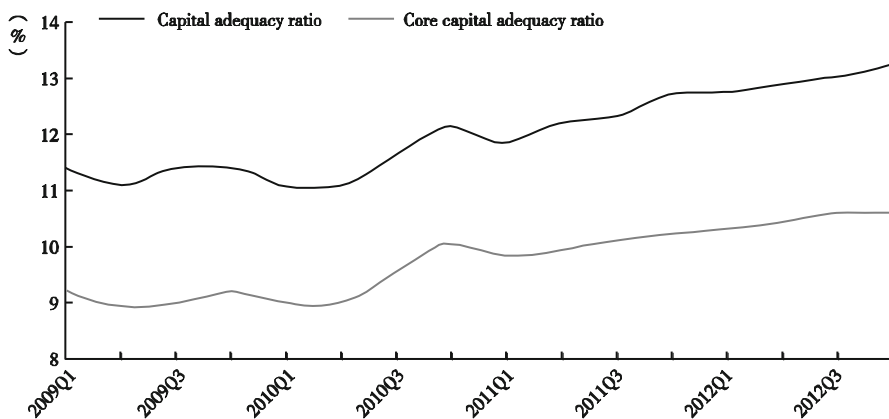


Fig. 8.1 Chinese bank capital adequacy ratios (2009–2012) (Source: CBRC’s “2012 nian zhongguo yinhangye yunxing baogao [China banking industry operations report 2012]”)

Much empirical research has been done to examine risky behavior triggered by capital regulation, including that by Chinese scholars.

The empirical research of some scholars has shown that capital adequacy ratio regulation can reduce risk in bank operations. Wu Dong and Zhou Jianping (2006) find that oversight of minimum capital by regulators can significantly reduce the risk level of Chinese banks. Hu Jie (2006) uses the industrial organization method of micro banking theory to create a risk-neutral banking model encompassing credit risk and reserve fund regulatory requirements. He finds that capital regulation required by the Basel II, by exerting dynamic capital costs, makes risk-neutral banks risk averse when facing risk.

But other scholars have found that capital adequacy ratio regulation does not reduce bank risk. Some have even suggested that regulation of capital adequacy ratios actually increases the riskiness of bank operations. Zhu Jianwu (2006) in a model based on bank capital adequacy ratios and capital risk under regulatory pressure, carries out TSLS analysis of 45 small Chinese banks. The results show that regulatory pressure did not have a positive effect on capital adequacy ratio adjustment and capital risk adjustment at these small banks. Wang Xiaolong and Zhou Haowen (2007) conduct empirical analysis by modeling changes to Chinese commercial bank risk and capital adequacy ratios for 2000–2005. They find that capital regulation was not the cause of lower risk at Chinese banks. Liu Xia and Pu Yongjian (2009) establish a multiple regression model of capital regulation and changes to risk and use panel data to study capital regulation and risk behavior at Chinese financial holding companies with mixed operations. They find that the development of mixed business financial holding companies has had a large impact on capital requirements in the Chinese financial industry but a small impact on financial industry risk. Wu Jun et al. (2008) study capital and risk behavior of Chinese commercial banks during the economic transition period (1991–2005) and

discuss the effects of the Basel Accord in China. Their study shows that increasing the capital adequacy ratio acted as a significant adverse incentive. And without strict enforcement of capital adequacy ratio regulation, the Basel Accord did not play a clear role in increasing capital adequacy ratios at Chinese banks. Zhou Wen (2007) also carries out an empirical study of the effect of higher capital adequacy ratio requirements on bank risk and finds regulatory pressure had a significant positive effect on the level of risk, meaning that banks with capital adequacy ratios of less than 8 % did not reduce risk by meeting regulatory requirements but rather by engaging in more high-risk investments.

Thus, only a few empirical studies in China indicate that bank capital regulation can reduce risky behavior. The majority of empirical results suggest that Basel-based capital regulation has not had the effect of reducing risky behavior, which is far from the target of regulators.

The Problems with China's Capital Adequacy Ratio Regulation

Although capital adequacy ratios at Chinese banks have risen significantly from past levels, one must note that the government has played a significant role in the process of reaching these regulatory targets. There are still many irrational factors in Chinese banking regulations, specifically in the following areas.

First, the governance mechanisms of Chinese banks are not perfect. China's banking industry has made considerable progress, particularly in the scale and variety of the industry. But it must be noted that there are problems with the governance mechanism of Chinese banking. From a property rights point of view, China's banks are basically all state-owned, but bank operations are still entrusted to individuals. According to modern principal-agent theory we know that China's current banking governance mechanism is prone to moral hazard. The mismatch between the interests of bank managers and the interests of the state easily results in mismatches in the allocation of assets. It is true that the Chinese government has recapitalized banks several times beginning in 1998 and has removed bad debts from the Big Four state-owned banks. Defects in the bank governance mechanism make it difficult for China to walk the road of market-based operations.¹

Although China's joint-stock banks have formed a governance structure of "shareholders meeting—board of directors/board of supervisors—managers," there are many irregularities in actual operations. Among most Chinese banks, the controlling shareholder is the government or a government-backed enterprise, and government departments largely control the appointment of bank directors and senior management. Boards of directors lack the means and incentives to safeguard

¹ Of course, the government has also been committed to setting bank operations on the market path as soon as possible. In order to respond to global competition, the Chinese government in 1998 began to improve the capital situations of Chinese banks by injecting funds and peeling away non-performing assets. The public listings of the Big Four banks (CCB, BOC, ICBC, and ABC) signify the first steps of the Chinese banking industry on the road of market-based operations.

shareholder interests. The process of recommendation and selection of outside directors is even more defective as outside directors are mostly spokespeople for the interests of bank executives. Bank managers focus mostly on coordinating relations with the government or the competent authorities rather than bank operations and risk control. Thus, China's imperfect bank governance mechanism impacts the asset quality and financial conditions of Chinese banks, hindering the enhancement of operational capabilities.

Second, Chinese regulatory agencies lack independence. In general, regulatory independence includes institutional independence, budgetary independence, independent oversight, and management independence. Institutional independence and budgetary independence are the foundation of regulatory independence. If institutional and budgetary independence do not exist, independent oversight and management independence will be difficult to achieve. In terms of Chinese regulatory practice, regulated banks mainly collect the budget funds of Chinese regulatory bodies, so budgetary independence is basically achieved. Chinese regulators currently carry out a model of regulation by industry, and the banking regulation function is no longer the purview of the central bank. But as a result of the multi-headed regulatory model and the development of mixed business operations in the financial industry, banking regulators from time to time face interference by other regulators, so China's regulatory agencies lack independence.

Finally, there is serious tolerance in China's regulatory structure. Although we do not know the specific circumstances of the tolerance of regulatory agencies, we can obtain information from certain events. Because of the rigid Chinese banking system, long-term poor management has caused huge non-performing assets, which has made China's banks undercapitalized for some time. Undercapitalization poses a serious risk for bank operations. In order to supplement bank capital, the Ministry of Finance in 1998 issued 270 billion yuan in special treasury bonds, which it used to replenish the capital of state-owned banks. In 1999, the government set up four asset management companies to act as counterparts for the disposal of the non-performing assets of Chinese banks.

Despite stripping banks of non-performing loans, the capital adequacy ratios of China's banks are still low. According to old Basel Accord standards, the capital adequacy ratio of the Big Four commercial banks was only 2.29% in 2003 (Tang Shuangning 2005). In order to increase the capital adequacy ratio of commercial banks, the government at the end of December 2003 used US\$ 45 billion in foreign reserves to increase the capital stock of Bank of China and China Construction Bank.

From these examples one can see that the Chinese government exhibits significant tolerance toward the Big Four banks, continuing to inject capital in the hopes of restoring these banks to health. In fact the government takes a similar approach to other banks and securities companies.

Chinese Market Access Regulation

Market access regulation is an important element of financial regulation. It refers to excluding those financial institutions that may harm the interests of depositors or the healthy operation of the financial industry by requiring examination and approval before a financial institution can enter the financial industry, manage financial products, or provide financial services. This ensures the security and healthy operations of the financial industry. The goals of market access regulation are to prevent excessive competition and maintain franchise value, control adverse selection and prevent speculators and risk-takers from entering the market while also promoting prudent management at financial institutions and preventing excessively risky behavior by banks. By managing the “access channel” and organizational structure of the financial system, banking regulation has a significant impact on the structure and size of the banking industry.

Overview of Chinese Market Access Regulation

According to current Chinese law, market access regulation for banking institutions includes approval of the institution, review of operations, and examination of the qualifications of senior management. Approval of the institution refers to approving the establishment of the financial institution’s legal persons or other branches in accordance with legal standards. Review of operations refers to approving the financial institution’s scope of business and launch of new business types in accordance with prudential standards. Examination of the qualifications of senior management refers to approval and recognition by financial authorities of the qualifications of the senior management of the financial institution.

In banking, for example, Chinese laws and regulations clearly define regulatory standards for market access by banking institutions. The establishment of a bank must meet with the objective requirements of national economic development, be in line with the policies and direction of the development of the financial sector, and conform to requirements for minimum capital, equity structure, shareholder qualifications, corporate governance, and internal controls. In addition, for a bank to launch a new line of business it must establish a sound risk control system in accordance with the risk characteristics of the business and it must establish strict and scientific rules for business operations and security guarantees. Overall, China’s laws and regulations on market access are basically sound, and regulators are relatively strict about market access and qualifications.

With the establishment of the CBRC, legislation for bank access has improved. By publicizing and implementing the “Yinhangye jianguan guanli fa [Banking Supervision and Management Law],” the CBRC its consciousness and initiative in regulating in accordance with the law. In terms of market access, the CBRC identified six standards for newly formed banks, made credit rating results an important basis for commercial bank access regulation, and

encouraged banks to conduct mergers and acquisitions voluntarily and according to market principles. The agency issued “Jingwai jinrong jigou touzi rugu zhongzi jinrong jigou guanli banfa [Management Approaches for Foreign Financial Institutions Investing in Chinese Financial Institutions],” which encouraged investment of private capital and foreign capital in existing banks. The CBRC formulated “Shangye yinhang yu neiburen he gudong guanlian jiaoyi guanli banfa [Management Approaches for Related Party Transactions of Commercial Banks with Insiders and Shareholders],” which strengthened management of investors and their related parties when investing in financial institutions. In addition, the CBRC issued departmental rules including “Guanyu tiaozheng yinhang shichang zhunru jiangguan fangshi he chengxu de gonggao [Announcement on Adjusting the Methods and Procedures of Bank Market Access Regulation],” “Shangye yinhang fuwu jiage guanli zanxing banfa [Interim Measures for the Management of Bank Service Prices],” “Jinrong jigou hengshengchanpin jiaoyi fuwu guanli zanxing banfa [Interim Measures for the Management of Financial Institution Derivative Product Transaction Business],” and “Guanyu fei yinhang jinrong jigou kaiban xin yewu youguan shenpi shixiang de tongzhi [Notice on Related Approvals for Non-Bank Financial Institutions Launching New Business],” reducing and simplifying administrative approval procedures by standardizing and cleaning up banking industry administrative approvals, and promoting the development and openness of the banking sector.

Current Problems with Chinese Market Access Regulation

Although China’s market entry laws and regulations are relatively sound, there is a considerable gap with the requirements of the core Basel principles. For example, approval of market access is still not sufficiently transparent or fair, access restrictions on new bank business are not sufficiently scientific, nor are appointments of financial institution executives sufficiently scientific. One current problem needing to be resolved is how to master the relationship between financial innovation and prudential regulation. Because the corporate governance mechanisms of Chinese banks are imperfect and internal risk management mechanisms are insufficiently sound, banks generally lack in-depth market proof before launching new businesses. They lack an understanding of the basic risks of new projects, as well as the ability to monitor business risks.

Information Disclosure Regulation

Overview of China's Regulation of Information Disclosure

Chinese regulatory authorities have relatively clear requirements on the content and frequency of information to be disclosed by financial institutions. Each type of institution can provide regulatory information in a standard format, and information is comparable to a certain extent. “Jinrong qiye kuaiji zhidu [Financial Industry Accounting System]” issued by the Ministry of Finance in 2001 references internationally accepted accounting standards specifically used for financial institutions. Although the scope is narrow, this is an important step toward the full implementation of prudential international standards for the financial sector. In terms of information disclosure, China's regulatory agencies have achieved further standardization of banking sector annual reports beginning with the issuance and implementation of “Shangye yinhang xinxi pilu zanxing banfa [Interim Measures for Bank Information Disclosure]” in 2002, making great progress in the standardization of information disclosure.

Since 2003, Chinese regulators, such as the CBRC, have established special working groups to study a networked regulatory information system aimed at the problems of insufficient comparability, comprehensiveness, accuracy, and timeliness of information. Regulators have set about establishing a unified national banking regulatory information system. They have formulated the “Yinhangye jinrong jigou jiangguan xinxi xitong jianshe zongti gangjia [General Framework for the Construction of a Banking Industry Financial Institution Regulatory Information System]” and have identified regulatory information requirements under that framework. At the same time, the CBRC has improved the off-site inspection reporting and indicator system, cleaned up the old regulatory reporting, augmented new reporting, and made clearer stipulations regarding the content and scope of various types of information provided by banks. In addition, the CSRC has required that the reports and materials provided by banks to regulators be consistent with information disclosed to the public. Senior bank managers are legally responsible for the accuracy and truthfulness of information.

In order to strengthen market restrictions on trust investment companies, standardize information disclosure, and promote the safe, steady, high-efficiency, and healthy development of trust investment companies, the CBRC issued “Xintuo touzi gongsi xinxi pilu guanli zanxing banfa [Interim Measures on Trust Investment Company Information Disclosure and Management]” (hereafter referred to as the Interim Measures), which went into effect beginning January 1, 2005. The Interim Measures require trust investment companies to truthfully, accurately, promptly, and completely disclose key information reflecting their operating conditions, such as financial accounting reports, risk management conditions, corporate governance, and major related party transactions for the year, to clients and stakeholders.

Under the guidance and promotion of the CBRC, 70 city commercial banks implemented information disclosure pilots. Through public information disclosure, city commercial banks have established a rudimentary market restraint mechanism, which plays an active role in improving management capabilities, accelerating the handling of risk, advancing business operations done in accordance with laws and regulations, strengthening awareness of self-restraint, and promoting the stable development of city commercial banks. In order to consolidate the successes of the information disclosure pilot, beginning in 2006, the CBRC required city commercial banks to fully disclose their operating and management situations in the form of annual reports in accordance with “Shangye yinhang xinxi pilu zanzing banfa [Interim Measures on Commercial Bank Information Disclosure].” In November 2007, the CBRC launched an information disclosure website for banking industry financial institutions to promote transparency of information among banking industry financial institutions.

Information Disclosure Problems

Although Chinese authorities have developed a number of rules governing information disclosure by financial institutions, such disclosure is still not standardized, and there are many problems.

First of all, there is no unified information disclosure framework. There are many types of financial institutions in China, and the information they are required to disclose varies (see Table 8.1). Currently, there is no unified financial information disclosure framework. Some laws and regulations require repetitious disclosure of information, which increases the cost of information disclosure and makes information disclosure inefficient.

Second, although China’s information disclosure is basically in accordance with the Basel II disclosure standards, there are still significant deficiencies in content of information disclosed and a significant gap with Basel II in the breadth and depth of information disclosed.

In terms of breadth, the items Chinese banks are required to disclose are relatively few. Information to be disclosed mainly includes risk management objectives and policies, the scope of merged tables, capital, capital adequacy ratios, credit risks, and market risks. Stipulations are made regarding the frequency of information disclosure and treatment of confidential information, but information to be disclosed under Basel includes 13 areas in four fields, including the scope of application, capital, risk exposure and assessment, risk disclosure requirements, credit risks, market risks, operational risks, bank account interest rate risks.

In addition, in terms of depth, Chinese information disclosure requirements are far too simple compared to Basel II, both from a qualitative and quantitative perspective. For example, market risks are limited to the disclosure of qualitative policy measures, and operational risk information disclosure only relates to a qualitative description of the technical risk events of listed banks. There are no requirements on the disclosure of information related to internal modeling methods

Table 8.1 The main information disclosure requirements for Chinese banks under the relevant laws and regulations

Applicability	Name of law	Time of implementation	Disclosure requirements
All banks	Accounting law	January 2007	The basis for the preparation of financial reports provided to different users of accounting materials should be consistent
	Information disclosure methods for commercial banks	December 8, 2006	Requires the disclosure of financial reports, risk management circumstances, corporate governance, and major events of the year; disclosure of the overall amount of related party transactions and the circumstances of major related party transactions; disclosure of audit reports from accounting firms; disclosure of various risks and risk management circumstances; disclosure of major annual events; compilation of information disclosed into annual reports in Chinese, released within 4 months of the end of each fiscal year.
	Commercial bank law	December 2003	Annual financial account must be reported to the government in a timely fashion; the previous year's operating results and audit reports must be reported within 3 months of the end of each fiscal year.
	Enterprise financial rules	July 1993	Enterprises must regularly provide financial statements to investors, creditors, and other relevant policy departments.
	Corporate accounting standards	July 1993	Financial reports must be prepared and submitted in a timely fashion to the authorities in accordance these norms

(continued)

Table 8.1 (continued)

Applicability	Name of law	Time of implementation	Disclosure requirements
	Enterprise financial accounting report regulations	January 2001	Provide financial and accounting reports in a timely fashion; provide financial reports to the parties concerned; their basis of preparation; principles, and methods should be the same
State-owned banks, foreign banks, joint-stock banks, and state-owned commercial banks	Disclosure methods for annual financial reports of state-owned banks (Trial)	April 2004	Within 4 months of the conclusion of each fiscal year, banks must submit supervised financial reports to the competent fiscal authorities and regulatory bodies and disclose to the public. Bank annual financial reports must be audited by certified accountants. Banks must report their capital adequacy status as of the end of the year. Banks must explain the true circumstances of internal governance and the decision-making mechanism.
	Financial regulations for financial insurance enterprises	July 1993	Enterprises must regularly provide financial reports to competent financial authorities, other government departments and other users of the reports.
	Financial enterprise accounting system	July 1993	Financial statements must be submitted on time to financial authorities of the same level and to the People's Bank of China. Annual financial statements must be reported within 3 months of the end of the year.
Listed banks	Disclosure by companies with publicly issued shares	January 2002	Organizations must compile and provide true and complete financial and accounting reports. Annual financial reports

(continued)

Table 8.1 (continued)

Applicability	Name of law	Time of implementation	Disclosure requirements
			must be provided within 4 months after the end of the year. The risk positions of financial instruments, such as credit risk, monetary risk, interest rate risk, and liquidity risk, must be disclosed.
	Information disclosure rules for companies with publicly issued shares	June 1993	Statutory financial reports and supplementary financial reports must be submitted at the same time. Boards of directors must disclose risk factors and responses in the reports. Quantitative analysis must be carried out for those risk factors able to be analyzed quantitatively. For those that cannot, a qualitative description must be made.
City commercial banks	City commercial bank finances	July 2002	Requires scheduled reporting of financial reports to the general meeting of shareholders and competent authorities.
	City cooperative bank accounting	July 1997	Requires the provision of accounting information to investors and regulatory authorities. Accounting reports must carry the seal of the bank.

Source: Compiled from the Fudan University doctoral dissertation of Wang Banxing (2007): “Zhongguo yinhangye quanmian fengxian guanli gaijin yanjiu—jiyu ‘xin ziben xieyi’ de shijiao [Study of advances in comprehensive risk management in Chinese banking—perspectives from the ‘New capital accord’]”

employed, nor are there requirements for the disclosure of risk factors and risk models and other quantitative information required under Basel II (Wang Banxing 2007).

Regulatory Construction

Financial Law Construction

China's financial regulators attach great importance to the construction of financial law. Since 1993, they have passed laws including "Zhonghua renmin gongheguo gongsi fa [Corporate Law of the People's Republic of China]," "Zhonghua renmin gongheguo zhongguo renmin yinhang fa [People's Bank of China Law of the People's Republic of China]," "Zhonghua renmin gongheguo shangye yinhangfa [Commercial Banking Law of the People's Republic of China]," "Zhonghua renmin gongheguo baoxian fa [Insurance Law of the People's Republic of China]," "Zhonghua renmin gongheguo piaoju fa [Negotiable Instruments Law of the People's Republic of China]," "Zhonghua renmin gongheguo danbao fa [Guarantee Law of the People's Republic of China]," and "Zhonghua renmin gongheguo zhengquan fa [Securities Law of the People's Republic of China]." The State Council and other agencies have announced and implemented regulations including, "Zhonghua renmin gongheguo jinrong zichan guanli gongsi tiaolie [Financial Asset Management Company Regulations of the People's Republic of China]," "Zhonghua renmin gongheguo waizi jinrong jigou guanli tiaolie [Foreign Financial Institutions Management Regulations of the People's Republic of China]," "Zhonghua renmin gongheguo shangye yinhang ziben chongzulü guanli banfa [Approaches for Commercial Bank Capital Adequacy Ratio Management of the People's Republic of China]," "Zhonghua renmin gongheguo zhengquan gongsi jianguan guanli tiaolie [Regulations for Securities Company Oversight and Management of the People's Republic of China]." These laws and regulations have provided an important guarantee of the prudential management of Chinese financial regulatory agencies and have better regulated the behavior of the various regulatory authorities.

In addition, since its establishment, the CBRC and other regulators have formulated "Zhonghua renmin gongheguo yinhangye jiandu guanli fa [Banking Regulatory Law of the People's Republic of China]" and "Zhonghua renmin gongheguo waizi yinhang guanli tiaolie [Foreign Bank Management Regulations of the People's Republic of China]" and revised the "Zhonghua renmin gongheguo shangye yinhang fa [Commercial Bank Law of the People's Bank of China]." It has made a thorough review of more than 2000 banking supervision regulations issued in the past. On a foundation of absorbing and learning from the best international banking regulatory practices and experience, it has formulated and introduced a series of prudential banking regulatory rules and regulations led by the new regulatory ideas of "managing legal persons, managing risks, managing internal controls, and increasing transparency." These are also prudential

regulatory laws and regulations mainly center on capital oversight, risk management, and internal controls.

First, in order to strengthen commercial bank capital regulation, the CBRC amended the old capital adequacy regulations and promulgated and implemented “Shangye yinhang ziben chongzulü guanli banfa [Management Approaches for Commercial Bank Capital Adequacy Ratios].” The new approaches revised the previous rules, which were not prudential and resulted in overestimation of capital adequacy ratios by making changes to the definition of capital and the method of calculating the capital adequacy ratio. China’s capital adequacy ratio regulation now basically conforms to Basel II capital oversight requirements. Drawing lessons from Basel II rules, the CBRC added a second pillar for regulatory agency inspection and supervision and a third pillar for information disclosure. At the same time, taking into account that under China’s old capital oversight system, real capital adequacy ratios were generally lower than book capital adequacy ratios due to lack of prudential asset classification and support of a loss provisions system, the CBRC has also been committed to advancing and improving loan risk classification, requiring banks to improve the accuracy of loan classification and achieve quotas for provisions for losses, thereby ensuring that capital adequacy ratios truly and accurately reflect the capital adequacy of commercial banks.

Second, in the areas of risk management and internal controls, since its establishment, the CBRC has required commercial banks to further improve corporate governance, improve risk management systems, strengthen internal control mechanisms, and guarantee the effective identification, measurement, monitoring, and control of various categories of risk. To date, the CBRC has established risk management guidelines for some risk classes and high risk areas, such as the release of “Shangye yinhang shouxin gongzuo jinzhi zhiyin [Guidelines for Commercial Bank Credit Underwriting],” “Shangye yinhang buliang zichan jiance he kaohe zanxing banfa [Interim Measures for Monitoring and Assessment of Commercial bank Non-Performing Assets],” “Shangye yinhang jituan kehu shouxin yewu fengxian guanli zhiyin [Risk Management Guidelines for Commercial Bank Group Client Underwriting Business],” and “Shangye yinhang neiburen he gudong guanlian jiaoyi guanli banfa [Management Approaches for Related-Party Transactions by Insiders and Shareholders of Commercial Banks].” It has also issued guidelines for derivatives and real estate loan business, including “Jinrong jigou yansheng chanpin jiaoyi yewu guanli zanxing banfa [Interim Measures for the Management of Derivatives Transaction Business at Financial Institutions]” and “Shangye yinhang fangdichan daikuan fengxian guanli zhiyin [Management Guidelines for Commercial Bank Real Estate Loan Risks].” It has also introduced management practices for auto loans, electronic banking, and other areas.

These prudential regulatory laws and regulations, combined with the previously promulgated “Shangye yinhang neibu kongzhi zhiyin [Guidelines for Commercial Bank Internal Controls],” “Daikuan fengxian fenlei zhidao yuanze [Guiding Principles for Loan Risk Classification],” and “Yinhang daikuan sunshi zhunbei jiti zhiyin [Guidelines for Provisions for Bank Loan Losses]” have formed the rudiments of a banking prudential regulatory laws and regulations system with capital regulation, risk management, and internal controls as the main lines. These laws and regulations have also laid a solid foundation for improving the legal system for Chinese banking regulation and improving the effectiveness of banking regulation.

Inadequacies of Financial Regulatory Legal Construction

Although great progress has been made in China’s regulatory laws, several problems remain.

First, since China has implemented the “one industry, three commissions” regulatory structure, each of the regulatory bodies has overseen different financial institutions and introduced different laws and regulations. These laws and regulations have inevitably overlapped, which not only results in the duplication of regulatory functions, but also causes confusion at financial institutions due to the sheer number of laws and regulations.

Second, because China’s regulators have gone through several changes, the financial market system is also ever changing, resulting in inconsistent laws and regulations. This also poses a problem for new regulatory rulemaking in China.

In addition to these problems, financial innovations and hybrid businesses pose challenges for regulatory structure of China’s regulation by industry. Numerous innovations in financial products and institutions have emerged in China with the aim of avoid controls, preventing risk, and seeking profits. These innovations span the insurance, securities, and banking industries. While enriching investment channels for individuals and institutions alike, they also have a huge impact on the traditional financial regulatory system. The emergence of financial holding companies has added to the complexity of the organizational structures, internal controls, and related-party transactions of financial institutions, adding uncertainty to prudential regulation.

Oversight by industry can easily result in multi-pronged oversight of financial holding companies. In addition to oversight by government audit departments such as the National Audit Office, Ministry of Finance, and State Administration of Taxation, financial holding companies are also overseen by regulators such as the Supervisory Board, the CBRC, CSRC, and CIRC. Multi-pronged oversight increases the burden on these companies, and will to a certain extent affect their normal management activities. At the same time, financial regulators each have their own focus and goals, and vacuums occur at the intersection between different lines of business, which is not conducive to comprehensive oversight. This shows

that the self-contained systems of each financial regulator lack coordination and information sharing.

8.1.2 Overview of the Chinese Financial Macro-Prudential Management System and Its Problems

Although the impact of the financial crisis on China's financial system and financial institutions in particular was relatively limited, Chinese financial regulators are well aware that this is thanks to China's capital controls and the limited global business conducted by Chinese financial institutions. With the deepening interaction between China and the world economy, the business and risks of Chinese financial institutions will continue to spread around the globe. At the same time, construction of the economy and the development of finance require a more macro-prudential institutional framework to hold everything together. To this end, having a more macro and prudential perspective to maintain China's financial stability and security is an extremely important task for Chinese monetary authorities.

The State of Reform of the Post-Crisis “One Industry, Three Commissions” Financial Regulatory System

China's determination to reform the financial system and financial regulatory system is relatively firm. The financial crisis put China's real economy through its most severe trial since reform and opening. If it were not for the 4 trillion yuan economic stimulus package and the stimulus and impetus of the ten major industrial development programs, China's economy might still linger in the shadow of the crisis. In view of this, preventing financial risk and financial crisis is a major challenge for the Chinese financial system. In reflection on the financial crisis and the collective deliberation of the G20 Summit, the non-prudent behavior of financial institutions, pro-cyclical effects of the financial system, and flaws in financial oversight, in particular the lack of systemic risk prevention mechanisms, have been found to be important causes of the outbreak and escalation of financial crisis. The G20 London summit communiqué pointed out that the financial sector itself and major faults in the financial regulatory system were the roots of the financial crisis.

Referencing the historical lessons of the financial crisis, pushed by the G20 summit, the pace of reform of China's financial system is approaching that of major developed countries. China has repeatedly said on multilateral G20 occasions that exploring effective regulatory models requires strengthening financial supervision and supporting international society in strengthening the capital adequacy rates and liquidity management systems of financial institutions. China has also said it will strengthen reform of its financial system and corresponding financial regulation.

The financial macro-prudential regulatory framework is the core of China's financial system reforms. The macro-prudential framework is a core element of the financial systems of major European and American developed economies and a major G20 policy proposal to address the financial crisis and future financial system reforms. In accordance with the consensus of the G20 Leaders Summit, the Financial Stability Board (FSB), the Basel Committee on Banking Supervision, and other international standard-setting bodies are working on strengthening macro-prudential policy institutions, policies, and tools, building institutional arrangements to respond to pro-cyclical effects, improving regulatory standards for systemically important financial institutions, and risk management and clearing arrangements. In accordance with the reality of China's participation in the G20 and its own Twelfth Five-year Plan, the macro-prudential framework will be a major future trend of China's financial and regulatory system reforms.

Building a counter-cyclical macro-prudential management framework is of first importance in the Twelfth Five-year Plan. The Twelfth Five-year Plan states that over the next 5 years, China will "build a counter-cyclical financial macro-prudential management framework. China will steadily advance interest rate market reforms, improve the managed, demand-based floating exchange rate system, improve management of foreign exchange reserves, and gradually realize yuan convertibility on the capital account. China will strengthen financial supervision and coordination and establish a sound early warning and management system for managing and disposing of systemic risks. China will participate in revising international financial guidelines and elevate its own financial industry standards. China will establish a deposit insurance system. China will deepen policy bank reform. China will strengthen the management system for state-owned financial assets. China will improve the management system for local government finance." Compared to the Eleventh Five-year Plan's acceleration of four aspects of financial system reforms (deepening financial enterprise reforms, accelerating the development of direct financing, improving financial control mechanisms, and improving financial supervision), in deepening financial system reforms, the Twelfth Five-year Plan focuses more on macro-prudential management. Financial macro-prudential management appears for the first time in the Twelfth Five-year Plan.

After the outbreak of the global financial crisis, along with concerns and reforms relating to the macro-prudential framework and financial macro-prudential management in the international community, China also actively participated in studying and formulating policies for financial macro-prudential management. For example, China actively participated and supported G20 work on the macro-prudential framework and Basel III. At the same time, China has begun carrying out reforms relating to the macro-prudential framework and regulation.

The People's Bank of China: The Builder of the Financial Macro-Prudential Framework

The People's Bank of China was the initiator of the study of the macro-prudential framework in China. In “2009 nian di san jiedu huobi zhengce zhixing baogao [Monetary Policy Execution Report Third-Quarter 2009],” the People's Bank of China wrote in a column titled “To Respond to the International Financial Crisis, Strengthen Macro-prudential Management,” that strengthening macro-prudential management is the core content of the current push for financial regulatory reform. In an inter-institutional, cross-temporal analysis of systemic risk, the report on the inter-institutional side found that macro-prudential management must consider the systemic risks resulting from interactions among financial institutions, and the stability of the financial system should be ensured by strengthening oversight of systemically important financial institutions and improving risk measurement and control of transaction partners. On the cross-temporal side, the report found that China should prevent systemic risks caused by the pro-cyclical effects of the financial system.

The report also recommended a series of policy instruments. China will gradually establish a system of macro-prudential management and incorporate it into the macro-control policy framework.

The People's Bank of China is the leader in the study and practice of the macro-prudential framework. After the U.S. financial crisis, the IMF's Financial Stability Board and other international organizations made it clear that central banks should be executing a macro-prudential framework. To this end, many economies, including the G20, focused on strengthening the macro-prudential policy functions of central banks in their reforms to financial and regulatory systems, magnifying the role of central banks in the macro-prudential framework. In China, the People's Bank of China is in a forward position in exploring policy for the establishment of a counter-cyclical financial macro-prudential management framework. After proposing the macro-prudential management framework for the first time at the end of 2009, the People's Bank of China in October 2010 held a seminar on macro-prudential policy in Shanghai with the International Monetary Fund to conduct a more systematic discussion of the macro-prudential framework.²

It is worth noting that in a speech at Peking University on December 15, 2010, China's central bank governor Zhou Xiaochuan systematically explained the response of financial policy to the financial crisis, in particular making an in-depth analysis of the formation of the macro-prudential policy framework, inherent economic logic, and the main content of the policy framework, and generally described the main framework and elements of the macro-prudential policy framework.³ In the speech, Zhou pointed out that the macro-prudential

² Source: Zhou Xiaochuan's comments to the “Macro-prudential Framework—East Asian Perspective” symposium held by the People's Bank of China and IMF on October 21, 2010.

³ Source: Zhou Xiaochuan (2010)

policy framework is in fact policy logic put forward in response to the financial crisis and is mainly aimed at responding to risks such as crisis contagion, regulatory standards, and collective blunders. The macro-prudential policy framework is a dynamic development system based on a more effective, counter-cyclical policy framework. Its main goal is the maintenance of financial stability and the prevention of systemic financial risks. Its main components include micro-prudential requirements on capital, liquidity, leverage rates, and provisions, as well as stronger capital requirements and other micro-prudential requirements for systemically important institutions. It also includes reform of accounting principles, rating agencies, and oversight of derivatives transactions.

In an interview with “Zhongguo jinrong (China Finance)” magazine, Zhou Xiaochuan (2011) stated the key near-term points of financial reform: (1) improving the financial macro-control system and establishing and improving a counter-cyclical financial macro-prudential financial management framework; (2) steadily advancing market-oriented interest rate reform; (3) further improving the yuan exchange rate formation mechanism; (4) establishing and improving the early warning system and disposal mechanism for systemic financial risks and raising the standard for a robust financial sector; (5) continuing to deepen reform of financial institutions and establishing a deposit insurance system; (6) deepening exchange rate management system reform and steadily advancing yuan capital account convertibility. The counter-cyclical financial macro-prudential framework is first among these tasks.

The People’s Bank of China has begun to implement macro-prudential policies. From the perspective of the central bank, macro-prudential policy is counter-cyclical policy. The People’s Bank of China has stated that there is still strong momentum for the continued expansion of credit in China and that there are potential risks in cross-border capital flows. Macro risks such as excessive liquidity, inflation, asset price bubbles, and increasing cyclical non-performing loans will significantly worsen, and financial sector asset quality and the ability to resist risks face a severe test. China’s is a bank-dominated financial system, and bank-led indirect financing is the main channel of Chinese financial intermediation. China responded to the financial crisis with a massive release of credit. But because banks occupy a large portion of social financing, there is a “great relationship” between fluctuations in the scale of credit, changes to the economic cycle, and systemic financial risks. Therefore, “establishing a counter-cyclical credit control mechanism is a priority for strengthening China’s macro-prudential policy.”

The great progress achieved in the People’s Bank of China’s macro-prudential policy is the counter-cyclical dynamic control mechanism for money and credit. The People’s Bank of China has stated that China should combine regulation of the total amount of money and credit and liquidity management with the building of the macro-prudential policy framework, implement dynamic adjustment measures for differentiated reserves, enrich and supplement policy instruments, guide the appropriate growth of money and credit, and enhance the risk-resistance of financial institutions.

Specifically, first, China may replace the size of money and credit of the past with the size of social financing as a more appropriate statistical monitoring indicator and macro control intermediate target. At a State Council plenary conference in January 2011, Wen Jiaobao unequivocally stated, “To maintain a rational scale and rhythm of social financing, we must avoid the abnormal release of credit early in the year.” The meeting for the first time explicitly referenced “the scale of social financing” and weakened the importance of “money and credit.” To this end, China’s macro controls may transform toward comprehensive market-based control measures.

Second, according to reports, in 2011, the People’s Bank of China regained control of aggregate credit controls and carried out overall responsibility for aggregate money and credit control. CBRC mainly provides support and coordination from a financial macro-prudential management perspective. Previously, in 2009 and 2010, the CBRC was responsible for control of aggregate credit. The People’s Bank of China does not publish a new credit target (it is possibly set internally) in order to improve flexibility.

Third, the differentiated reserve system is an important tool of the central bank in establishing counter-cyclical credit management. On April 25, 2004, the People’s Bank of China began implementing a differentiated deposit reserve system for financial institutions. At the time this was mainly to restrict the blind and excessive issuance of credit by banks with low capital adequacy ratios and poor asset quality. At present, this system may be an important tool for the central bank in counter-cyclical credit management. At its annual meeting in 2011 the People’s Bank of China noted that it would implement dynamic differentiated reserve adjustment measures to guide the steady and moderate growth of money and credit. According to Xinhua News Agency, in the first 2 months of 2011 alone, the People’s Bank of China had raised the reserve ratios for more than 40 banks.⁴

The People’s Bank of China’s building of the macro-prudential framework is only a prelude. In an interview with “Zhongguo jinrong (China Finance),” Zhou (2011) stated that in accordance with the unified deployment of the State Council, the People’s Bank of China is currently studying strengthening systemic risk prevention and building the counter-cyclical financial macro-prudential management framework, the focus of which is establishing a counter-cyclical credit control mechanism and strengthening macro-prudential management of systemically important financial institutions. The main work includes five aspects.

The first is establishing an analysis monitoring and evaluation system for the soundness of the financial system, strengthening macro-prudential analysis, grasping macroeconomic trends and changes to risks, and establishing a system soundness monitoring evaluation indicator system.

Second is establishing and improving the dynamic regulatory mechanism for money and credit. This includes combining money and credit and the aggregate adjustment of liquidity management with building a macro-prudential policy

⁴ Quoted from Reuters (2011).

framework, implementing dynamic adjustment measures for differentiated reserves, enriching and supplementing policy instruments, guiding the appropriate growth of money and credit, and enhancing the ability of financial institutions to resist risk. It also means establishing a counter-cyclical dynamic capital buffer and forward-looking provisioning arrangements, safeguarding financial system stability, and enhancing the sustainability of financial support of economic growth.

Third is strengthening the regulatory regime for systemically important financial institutions. This means establishing and improving the regulatory rules and system for Chinese financial holding companies, supervising and urging financial holding companies to strengthen corporate governance and risk management, and remedying the regulatory vacuum and insufficiencies.

Fourth is building a multi-level financial system, improving the financial market's price discovery function, improving orderly risk management arrangements, and establishing a deposit insurance system. This also includes reducing the connectedness of the financial system and preventing "herd behavior" by financial entities.

Fifth is strengthening cooperation among departments, achieving the effective coordination and supplementation of macro-prudential management and micro-prudential supervision, achieving overall coordination among the People's Bank of China and regulatory authorities in accordance with the division of functions, strengthening analysis and judgment of systemic financial risks, promoting coordination between monetary policy and regulatory policy measures, strengthening coordination between financial risk mitigation and management operations, and strengthening financial stability information sharing.

CBRC: The Leader in the Practice of Financial Macro-prudential Management

The CBRC is the pioneer among China's regulatory bodies in implementing the macro-prudential financial management framework. The banking industry is the leading industry in China's financial system. The CBRC's establishment of the financial macro-prudential management framework began with international financial cooperation, the most important piece of which was Basel III.

The September 12, 2010 meeting between the central bank governor and regulatory leaders reached a consensus on capital adequacy regulatory standards and transitional arrangements, the core of which included three areas. First, it identified three minimum capital adequacy ratio requirements, namely minimums of 4.5 % for common shares (including retained earnings), 6 % for Tier I capital, and 8 % for total capital. Second, it identified two excess capital requirements. First was a 2.5 % capital conservation buffer. The establishment of a requirement for a capital conservation buffer was done in order to ensure that banks have ample capital to absorb losses in times of economic pressure. It also stipulated that banks must use common shares to satisfy the capital requirements of the capital conservation buffer. Second was a counter cyclical buffer of 0–2.5 %. Only in cases of high

growth of systemic loans are commercial banks required to recognize a counter-cyclical capital buffer. Most of the time, the counter-cyclical capital buffer is zero. Third was identifying transitional arrangements. In order to prevent excessively fast implementation of higher capital standards from impacting global economic recovery, the Basel Committee extended the implementation period for the Capital Accord to 2019. Beginning in 2019, minimum adequacy ratios will be 7% for common shares (including retained earnings), 8.5% for Tier I capital, and 10.5% for total capital for commercial banks under normal conditions.

The CBRC has noted that for some time to come, the commission will adhere to the existing capital regulatory framework, draw lessons from new achievements in international banking capital regulation reform, and adjust and improve the Chinese banking capital regulatory system. These improvements include quantity standards, quality standards, time tables, regulatory measures, and other important components in order to further enhance the effectiveness of capital regulation and maintain the systemic stability of the Chinese banking system.⁵

In 2010, the CBRC committed to the construction of a banking industry macroprudential management framework. In addition to the significant progress made with Basel III, the CBRC has noted the need to promote the reform of the regulatory system for China's banking entities, "striving to complete development and construction work on four regulatory instruments: capital adequacy ratios, dynamic provisioning rates, leverage rates, and liquidity ratios." At its 2011 annual meeting, the CBRC pointed out that it would fully implement the results of international financial regulatory reform in 2011, maintain the stable operation of the banking sector, and prevent systemic financial risks, in particular "focusing on controlling and preventing systemic and regional risks."⁶

The CBRC has developed a relatively sound macroprudential management framework and microprudential regulatory indicators. In its 2009 annual report, the CBRC roughly laid out the framework of the macroprudential management system for the banking industry and its corresponding microprudential indicators. Broadly speaking, the CBRC has made positive progress in the warning of systemic risk, improvement of financial macroprudential management policy, regulation of systemically important institutions, the prevention of cross-border and cross-industry contagion of financial risk, and the formulation of credit policy (Li Wenhong 2010).

CBRC policies relating to single-institution risks in the financial industry mainly fall into six areas. First is a proposed increase to the discretionary counter-cyclical capital buffer mechanism. Based on the 8% minimum capital adequacy ratio requirement, the CBRC requires banks to increase counter-cyclical buffer capital. Small banks must reach an overall capital adequacy ratio of 10%, while systemically important large commercial banks must reach 11%. Second is the implementation of dynamic risk provisions. This means calculating and dynamically

⁵ Source: CBRC (2010).

⁶ Source: CBRC (2011).

adjusting loan loss provisions in accordance with real loss rates for various credit assets, and gradually increasing the regulatory target from 100 to 130 %, and then 150 %. Third is a proposed implementation of a leverage rate regulatory regime. It requires that on and off-balance sheet main assets of banks not exceed a certain multiple of owner's equity. Fourth is improving the liquidity regulatory regime. The CBRC issued "Shangye yinhang liudongxing fengxian guanli zhiyin [Management Guidelines for Commercial Bank Liquidity Risks]" in September 2009. Fifth is a dynamic adjustment mechanism for loan to value ratios, with particular focus on real estate credit risks. Sixth is strictly controlling centralized risks. This requires banking financial institutions to adhere to an underwriting ceiling of 15 % for single customers and group customers in order to avoid a high concentration of risk. In November 2011, the CBRC stressed comprehensively strengthening regulation of systemically important banks, actively participating in the formulation of banking regulatory rules, standards, and requirements at international financial regulatory organizations, and vigorously promoting international financial regulatory cooperation to ensure the stability and security of the banking sector and financial system.

In terms of early warning, identification, and prevention efforts, the CBRC is mainly considering four major initiatives. First is focused oversight of systemically important institutions and implementing focused, "two-headed" regulation of large banks and rural credit unions. Second is strengthening window guidance and risk warnings. Third is accelerating improvements to the risk early warning system, using statistical analysis to identify and warn of risks. Fourth is carrying out stress tests, particularly in overheated industries and high-risk sectors such as real estate, and developing appropriate contingency plans and policy initiatives based on the results of the stress tests.

In the area of cross-market risk management, the CBRC is considering three main policy responses. First is establishing a cross-market risk isolation regime for the financial system. This entails strengthening credit management, prohibiting banks from issuing guarantees for corporate bonds, increasing risk pricing for non-owner housing, and strengthening the separation of credit market risks from those of the capital market, bond market, and real estate market. Second is strengthening regulation of comprehensive bank operations. This entails clarifying exit mechanisms, promoting comprehensive combined statement management and prudent development of comprehensive business. Third is strengthening monitoring and prevention of cross-border risks.⁷

Overall, regulatory instruments such as the capital adequacy ratio, dynamic provisioning ratio, leverage ratio, and liquidity ratio will become the CBRC's main microprudential indicators within the future macroprudential regulatory framework. According to reports, guidelines for these four major regulatory indicators obtained State Council approval in February 2011, and guidelines for

⁷ Source: "Zhongguo yinhangye jianguan guanli weiyuanhui 2009 nian nianbao [CBRC Annual Report 2009]."

leverage rates and liquidity rates will be the first to be released. The provision rate target will be raised to 2.5 %. Large banks will be given a 2-year transition period, and small banks a 5-year transition period. Capital adequacy ratios will be implemented according to the dynamic mechanism, determined by the risk control capabilities of the banking institution (Zhang Zhaohui 2011).

The CBRC's Financial Macroprudential Management Reforms

The financial macroprudential regulatory framework has made some progress in the area of bond market regulation. The CSRC will first improve regulation of bond market issuance, settlement, credit rating, and other basic infrastructure. By strengthening the regulatory regime, the CSRC will steadily establish a centrally supervised, mutually connected bond market. The CSRC will strengthen monitoring, identification, and warning of systemic risks, deepen exploration of the interaction and combination of financial macroprudential management and microprudential regulation, and promote the overall macro stability of the capital market and financial system. In the area of micro-regulation, the main measures the CSRC employs include: (1) strengthening and improving market regulation and protecting the security, order, and effective operation of the market; (2) continuing to strengthen high-pressure supervision of insider trading, market manipulation, and other illegal market behaviors to protect consumer interests and uphold the order and stability of the market; (3) strengthening regulatory measures such as information disclosure, compliance management, and oversight by classification, accelerating the improvement and updating of the integrity database and integrity oversight mechanism.

The CIRC's Macroprudential Financial Management Reforms

The CIRC has also made some arrangements for the macroprudential financial management of the insurance market. The CIRC's main work will "shift from market construction to market regulation." The compulsory mechanism of the international financial crisis pushed the CIRC to change its role in a shift from the previous microprudential regulation to macroprudential financial management in order to match the needs of the present conditions of insurance industry development and the domestic and international financial situation. The CIRC has proposed strengthening solvency regulation, conducting industry stress tests, preventing pro-cyclical effects, and improving the regulatory system on the basis of regulation by class and according to the principle of combined regulation of institutions and functions.⁸

⁸ CIRC (2010).

The CIRC's macroprudential financial management framework in reality is based on a macroprudential and microprudential regulatory system that comprehensively manages risk. It mainly includes strengthening counter-cyclical regulation, strengthening regulation of financial groups, strengthening stricter regulation of "too big to fail" insurance institutions, strengthening information sharing among different regulatory bodies, and strengthening the implementation of macroprudential financial management in the area of improving solvency standards. Centered on capital and solvency regulation, it also includes modifying minimum capital requirements, establishing a risk capital system, improving regulation by class and capital replenishment funds. It also strengthens information disclosure and self-restraint in the market, promotes comprehensive risk management, and improves the risk capital regulatory regime.⁹

The Problems with China's Macroprudential Regulatory Regime

Beginning with reform and opening, China's financial and financial regulatory systems have developed considerably, and the financial sector has become a key industry in the national economy. The financial sector has developed and grown throughout periods of reform, opening, and innovation. The number of employees at financial institutions has grown substantially, and the scale of finance has expanded significantly. There are a variety of types of banking institutions spread throughout the country, responsible for attracting deposits and issuing loans. Insurance institutions have grown and securities institutions have appeared out of nowhere, forming a complete system of financial institutions with banking, securities, and insurance functions. More important, the rapid and steady development of the financial industry has enhanced the efficiency of economic growth and social development. The financial system has played an important role in optimizing the allocation of resources, supporting economic reforms, promoting the steady and rapid development of the economy, and maintaining social stability. It has effectively promoted economic and employment growth and social development.

Accordingly, in the course of the flourishing development of the financial system, the People's Bank of China, CBRC, CSRC, and CIRC have comprised the main regulatory bodies of the financial system. There is a clear division of labor and an industry-by-industry regulatory framework with clear official powers and effective oversight. In the financial crisis, while the Chinese financial system experienced some impact, including the Chinese stock market experiencing the world's largest market decline, the Chinese financial system overall remained relatively stable, without a large volume of problem assets or a significant number

⁹ Source Chen Wenhui's comments to the CIRC and China Insurance Association's comprehensive risk management seminar-cum-training session, "Fengxian guanli ya jing jinrong hongguan shenshen guanli he weiguan shenshen jianguan [Risk Management Must Combine Macroprudential Management and Micro-prudential Oversight]," January 14, 2011.

of financial institutions going bankrupt. Financial functions remained basically stable. It can be said that under the impact of the global financial crisis, China's financial system overall maintained a stable trend, indicating that China's current financial regulatory framework is reasonable and effective.

However, in-depth analysis of reasons for the relatively small impact of the financial crisis on China show that in addition to the effectiveness of financial supervision, China's capital controls and the limits of China's market liberalization were major contributing factors to financial stability. One can imagine, had China's capital account been liberalized, the overseas assets of individuals and institutional investors alike would have faced sharp devaluations or even defaults, and the U.S. dollar holdings of Chinese financial institutions would perhaps not have been in the tens of billions but in the hundreds of billions or trillions of dollars. To this end, China's regulatory effectiveness was obtained in the context of capital account controls and limited financial market liberalization. In other words, that the "flower" of Chinese finance remained relatively unbiten by the frost of the financial crisis was due to its life within a financial "greenhouse." Combining the development of global finance and the evolution of the financial regulatory system, as well as the construction of China's own financial regulatory system, in particular progress on macroprudential financial management reforms, several major problems exist in China's financial system. These problems are the main direction of China's future financial regulatory system, in particular the improvement of the macroprudential financial management framework (Rao Bo and Zeng Liansheng 2009).

Lack of Coping Mechanisms for Systemic Risks

One of the largest problems of the Chinese financial regulatory system at the moment is the lack of mechanisms to handle systemic risks. Legally, the People's Bank of China undertakes the function of "preventing and reconciling systemic risks and maintaining national financial stability." In other words, it is responsible for systemic financial risks and national macro-financial stability. But China has not established corresponding mechanisms for the disposal systemic financial risks.

First, China lacks an authority responsible for systemic risks. As the People's Bank of China's core function is monetary policy, its regulatory authority over the financial system as a whole is less than adequate. For example, the central bank only has the authority to directly regulate banks in exceptional circumstances and only with the approval of the State Council. And it lacks the legal basis for direct oversight of the securities and insurance industries. In other words, the People's Bank of China's responsibilities for preventing and disposing of systemic risks far exceed its real powers and authority.

Second, the generation and accumulation of systemic risk are mainly the result of pro-cyclical effects and cross-spatial contamination (mainly involving regulation of systemically important financial institutions). Legally, the People's Bank of China has the authority to formulate and enforce monetary policy, and it can

therefore weaken fluctuations in the economic cycle relatively effectively by responding to pro-cyclical effects, for example by adjusting deposit reserves and interest rates and adjusting the scale of open market transactions. However, in terms of a response to the spatial distribution and contamination of risk, the central bank is basically powerless as it does not have the authority to regulate large financial institutions directly. None of the important institutions, such as CITIC Group, China Merchants Group, China Everbright Group, Ping An Insurance, or the Big Four banks, are under the purview of the People's Bank of China.

Third, China lacks systems for measuring, analyzing, warning of, and controlling systemic risks. As of the end of 2010, China still had not established a corresponding systemic risk monitoring system, including indicators such as asset prices, proportion of aggregate credit to GDP, and overall liquidity.

Lack of an Effective Oversight and Coordination Mechanism

The Chinese financial regulatory system lacks an effective oversight and coordination mechanism. In China's system of oversight by industry, the central level is comprised mainly of the People's Bank of China, CBRC, CSRC, and CIRC, while the National Development and Reform Commission (NDRC) and Ministry of Finance are also important components of the regulatory system. But coordination mechanisms among regulators are insufficient.

On a legal level, the CPC Central Committee's "Guanyu wanshan shehui zhuyi shichang jingji tizhi ruogan wenti de jue ding [Decisions on Improving Several Issues Relating to the Socialist Market Economic System]" states: Establish sound coordination mechanisms among banking, securities, and insurance regulatory agencies, as well as between the central bank and the financial departments to enhance the level of financial oversight. The "Zhonghua renmin gongheguo zhongguo renmin yinhangfa [People's Bank of China Law of the People's Republic of China, " also stipulates, "The State Council will establish financial oversight and management coordination mechanisms, with the specific methods to be provided by the State Council." However, the State Council has yet to establish a financial oversight and coordination mechanism. The "People's Bank of China Law" and the "Zhonghua renmin gongheguo yinhangye jianguan guanli fa [Banking Industry Oversight and Management Law of the People's Republic of China]" require the People's Bank of China and the CBRC establish information sharing mechanisms with other financial regulators. In 2003, the People's Bank of China, CBRC, and CIRC established a three-party oversight joint conference system. Also in 2003, the CBRC, CSRC, and CIRC announced a tripartite memorandum on the division of labor of financial oversight, which established a system of regular and irregular joint meetings.

However, there are numerous problems with the three-party regulatory coordination mechanism of the three industry regulators. First, there is no subordinate relationship for the three regulators in the memorandum. Regulatory coordination is

basically information exchange and exchanges of regulatory experiences, and it is difficult to form effective regulatory decisions under the memorandum. Second, the People's Bank of China does not participate in the memorandum's joint meeting, so it lacks effective coordination with monetary policy and regulatory practice as well as macroprudential and microprudential coordination. Third, the NDRC and Ministry of Finance do not participate in the joint meetings, making it difficult to coordinate other macro-management policies.

System Mismatch

China's current financial regulatory system has clear systemic mismatches, such as the mismatch between financial business models and financial regulatory system.

In the development process of China's financial system, the lines between industries have begun to blur, especially with the emergence of large financial holding groups. China's model of regulation by industry is facing increasing challenges. Financial holding companies have diverse businesses with corresponding intersecting risks. No corresponding policy framework has been developed for China's regulatory system. Large holding companies such as CITIC Group, China Merchants Group, China Everbright Group, and Ping An Insurance (Group) are regarded as systemically important institutions, and they are capable of setting off systemic risks. With the expansion of business lines, China Construction Bank, Industrial and Commercial Bank of China, and Bank of China are developing in the direction of financial holding companies.

It is worth noting that the regulatory body overseeing the China Investment Corporation (CIC), with registered capital of US\$ 200 billion yuan, is unclear. As can be seen from the company's articles of association, CIC's "effective control" principle is based on internal controls and risk management. A similar problem exists at the CIC subsidiary Central Huijin. CIC and Central Huijin are both established according to China's "Corporate Law" and should be overseen by financial regulatory authorities. China's financial system is one led by large financial institutions and with relatively underdeveloped small and medium financial institutions. If risks break out at a large financial institution, as there is no lack of immediate alternative, the financial intermediation function of the financial system could deteriorate quickly.

In a sense, the emergence of large financial holding companies and special enterprises like CIC and Central Huijin has blurred the distinction between business by industry and mixed business, and the trend for these enterprises is toward mixed business operations. This will have a significant impact on the effectiveness of China's oversight by industry, and presents the possibility of systemic failure of the model of oversight by industry. This was one of the root causes of the outbreak and escalation of the financial crisis in the U.S. and has been the key to President Obama's push for the implementation of the so-called "Volcker rule."

Regulatory Loopholes

There are a number of loopholes in China's current financial regulatory system. First is the issue of risk control in the development of finance and financial innovation. With the rapid development of the financial sector, the diversification of lines of business, and the diversification of financial institutions, corresponding risks have emerged and accumulated. These pose clear challenges to the stability of the financial system, such as in the case of private equity funds in the securities industry, guarantee companies among non-bank financial institutions, and pawn shops, not to mention underground, illegal, and informal "financial institutions." Second is oversight of intersecting lines of business. This is another issue that has emerged alongside financial innovation. For example, the regulatory system has no clear risk response measures for the consumer interest guarantee issues triggered by insurance and securities institutions selling insurance products through banking institutions. Third is oversight of local financial institutions. On site oversight of local financial institutions is largely undertaken by local delegated agencies of the Big Three regulators. Due to differences in the effectiveness of oversight by these local regulatory agencies, the risks of some local financial institutions may not be fully recognizable. Some financial institutions in China have even changed their place of regulation in order to avoid oversight.

8.2 Considerations for Optimizing the Prudential Management System

8.2.1 Improving Capital Regulation

China's financial industry has begun to open to foreign investment, and the level of openness will gradually increase. But because of the poor management and risk-prevention capabilities of China's banks, there are still many problems for bank capital regulation. Based on the problems with China's capital regulation, improvements can be made in the following areas.

First is to identify the goal of capital adequacy ratio regulation. In regulating capital, regulators should be controlling risky behavior in bank management. But looking at the practice of Chinese capital regulation, although capital adequacy ratios have increased significantly at the Big Four state-owned banks, national joint-stock banks, and nearly half of city commercial banks, these increases have been accomplished through capital injections from national and local financial administrations. Government cash injections do not improve the operational capabilities of banks. In fact, the government is simply bearing responsibility for banks' bad assets. This does not conform to the original intent of capital regulation. Chinese scholars have conducted numerous empirical studies of the relationship between capital regulation and bank operating risks. Although some results support the

viewpoint that capital regulation can reduce bank risk, more studies lend credence to the viewpoint that China's capital regulation for banks has not reduced bank operating risks. Thus, Chinese regulators must clarify the goals of capital regulation, and in implementing such regulation, they should focus on enhancing the operational ability and risk-control capabilities of banks.

Second is improving bank governance mechanisms. An important reason for insufficient capital adequacy in the Chinese banking sector is the industry's incomplete bank governance mechanism. The vast majority of Chinese banks are state-owned. Given the present separation of ownership and management, the government should further improve the bank governance mechanism so that bank operations are guided by the market and are subject to as little government interference as possible. The government should promote the establishment of diversified equity institutions and a decision-making balancing mechanism for the Chinese banking sector, continue to push capable banks to list domestically and internationally, and rationalize the principle-agent relationship. In addition, the government should further improve shareholders meeting and board of directors governance, as both are currently riddled with problems. An audit committee and compensation committee should be established on each board, and the methods of electing outside directors should be changed, so that boards of directors can truly consider the interests of shareholders.

Finally, banks should be pushed to learn self-reliance as soon as possible. In recent years, although capital adequacy ratios at Chinese banks have improved significantly, this is mainly from government capital injections or government disposal of non-performing assets. The improvements have not been the result of improved operational capabilities at Chinese banks. In order to ensure that the banking sector is able to better respond to the challenges associated with WTO membership, the government has carried out multiple cash injections into Chinese state-owned banks. But increasing capital adequacy ratios through such non-market actions does nothing to improve the operational capabilities of banks. Nor can the government always foot the bill for banks. State-owned banks must work diligently to enhance their own management capacity in order to better face the competition from foreign banks.

8.2.2 Selecting Appropriate Regulatory Forbearance

The choice of the level of regulatory forbearance is at the core of the prudential regulatory regime. Although there is no international policy consensus on regulatory forbearance, China's regulators can learn from the following points.

First, the expectations of financial institutions for regulatory forbearance should be dispelled. As can be seen from the foregoing analysis the impact of regulatory forbearance, expectations of regulatory forbearance will cause serious moral hazard, and regulators should therefore work to dispel expectations of regulatory forbearance by financial institutions to the extent possible. As in Dewatripont and

Tirole's (1994) model, dispelling expectations of regulatory forbearance requires that regulators promptly rectify problems found at financial institutions in the second period. But Dewatripont and Tirole also find that this will cause inconsistencies. Thus, to improve the exit mechanism for financial institutions, financial institutions with failed operations must be allowed to exit the market, establishing a survival-of-the-fittest elimination mechanism for the financial market.

Second, when problems emerge at financial institutions, regulatory policy must be chosen in accordance with the specific circumstances. Sleet and Smith (2000), Kocherlakota (2001), and Kocherlakota and Shim (2007) provide us with the theoretical basis. When making decisions, regulators must set out from the perspective of the good of the community, considering the macroeconomic situation as well as the assets of the individual banks, and choose the regulatory policy that maximizes the public benefit, rather than simply carrying out regulatory forbearance. The policy implication of Shim's (2006) theory is that even if regulators discover that all financial institutions need to be promptly rectified, they should employ a small amount of regulatory forbearance, which will maximize social benefit.

Third, regulatory forbearance based on the individual interests of regulators is not necessarily the policy that maximizes social good. Thus, China's policymakers should improve the management structure of regulatory bodies as quickly as possible to prevent regulators from pursuing self-interest. It is common in all countries for regulators to enact regulatory forbearance out of their own interests. The government should seek a more comprehensive evaluation mechanism and power arrangement to make regulatory decisions more transparent and scientific.

Finally, due to the particular characteristics of China's economic transition, there are too many aspects of the financial system needing to be changed or improved. In the short-term, the operations of Chinese financial institutions cannot be conducted strictly in accordance with the market, and improving bankruptcy law for financial institutions will require some time. Therefore, improvements to regulatory forbearance will also be a gradual process. But with the entry of foreign financial institutions, China's financial market liberalization is accelerating, and the government should therefore be fully prepared to gradually improve regulatory forbearance or quickly correct the decision-making mechanism.

8.2.3 Recommendations for Improving Access Regulation

Market access regulation can be improved in the following areas. First, the regulatory evaluation mechanism for market access should be improved so that regulators can carry out examination and approval responsibilities independently, objectively, and impartially, which will enhance the authority and effectiveness of market access management. At the same time, China should develop open and transparent criteria and procedures for examination and approval and make market access regulatory procedures public in order to improve processing efficiency.

Second, China should improve approval management of financial institutions and new lines of business in order to support and encourage financial institutions in launching innovative new lines of business. In the coming period, the ability of Chinese financial institutions will be greatly enhanced. The pace of acceleration will quicken, and the complexity of financial products will gradually increase. Rather than examination and approval of institutions and assessment of the qualifications of managers, access for new lines of business will become the focus of market access regulation. This requires that regulators adapt to changes in to the economy and finance at home and abroad, and make prompt adjustments to unsuitable policies, rules, and regulations, in order to create a favorable environment for innovation and competition among financial institutions. Financial instruments and products that are more mature and popularized abroad should be allowed as pilots in China. Access restrictions for new lines of business should be vigorously but safely relaxed in accordance with changes to the market competitive environment and improvements to the internal controls of financial institutions. Procedures should be simplified to enhance the steady development of financial institutions that demonstrate self-discipline.

8.2.4 Methods for Improving Regulation of Information

In the coming period, China's regulators must further improve regulatory requirements on information, improve the quality of information regulation, and make better decisions on this foundation.

First, because of the gap in depth and breadth of China's information disclosure requirements compared to the Basel II requirements, China should refer to the relevant Basel II requirements for information disclosure and unify China's existing information disclosure regulations for the financial industry to form a complete set of specific information disclosure requirements. China should strive to achieve parity as quickly as possible with Basel II requirements for information disclosure, credit risk information disclosure, market risk information disclosure, and operational risk informational disclosure.

Second, China should accelerate the pace of full implementation of prudential banking accounting principles and enhance the comparability of regulatory information. China should gradually expand the implementation scope of "Jinrong qiye kuaiji zhidu [Financial Business Accounting System]" to push state-owned banks and unlisted joint-stock banks to mutually implement prudential international accounting principles. In addition to employing effective measures to vigorously promote the risk classification system for loans and the loan loss provisioning system, China should also encourage banks to employ prudential revenue recognition and accounting handling methods, as well as prudential asset devaluation principles such as fixed asset depreciation and revaluation.

Finally, China should improve the regulatory information system, formulate scientific and rational content and frequencies for reporting, and ensure the

comprehensiveness, timeliness and relevance of information. Regulatory authorities, the CBRC in particular, must establish offsite examination reports and indicator systems at different levels for bank legal persons and branches to obtain combined statement information and determine the rational scope and frequency of reporting for various types of information in accordance with the bank's organizational structure, size, and operating characteristics.

8.2.5 Improving Regulatory Laws and Regulations

Although China has made significant progress in its prudential oversight laws and regulations, compared to Basel II principles, there are still numerous problems with China's prudential banking regulatory system needing to be further supplemented and improved. Improvements can be made in the following three areas.

First, China should arrange, classify, and revise existing laws and regulations under the prudential supervision and regulation framework. In accordance with the principle of gradual and orderly progress, China should form new rules and regulations that are risk-based and workable.

Second, China should improve the CBRC's internal rule formulation process to establish procedures for the listing of items, deliberation, and announcements and ensure the timeliness, continuity, and consistency of rulemaking.

Third, China should establish a dynamic tracking, assessment, and improvement mechanism for regulatory rules, regularly making follow-up evaluations of regulatory rules and supplementing, revising, and improving such rules in accordance with the development requirements of the banking industry.

8.2.6 Constructing a Macroprudential Regulatory System

As to how to build a macroprudential regulatory system, China should first establish a counter-cyclical regulatory system. One major goal of establishing a macroprudential regulatory system is to eliminate the pro-cyclical effects of Basel II and accounting standards on the financial system, further study the financial system's inherent pro-cyclical mechanism, and establish appropriate counter-cyclical regulatory mechanisms through counter-cyclical policy (such as a counter-cyclical capital buffer mechanism, reform of provisioning policy, and fair value accounting standards).

Second, China should explore macroprudential indicators appropriate to China's national conditions. Some progress has been made in the study of systemic risk indicators in China. The study of macroprudential regulatory indicators has also made some progress, but these monitoring indicators are not in common use. Thus, China should learn from the international experience, design macroprudential indicators suited to China's national conditions, carry out continuous monitoring,

pay particular attention to deviations in each indicator from the historical average, and constantly make revisions. In banking, for example, banking sector credit indicators can be chosen as the basis for determining asset price bubbles. Meanwhile, macro pressure tests can be used to estimate the potential losses the economic system could suffer in a crisis. Macroprudential regulatory agencies can feed the indicators and expected losses back to the CBRC and make appropriate policy recommendations, and the CBRC can implement specific regulatory policies based on these indicators and suggestions.

Third, China should build a sound power structure for macroprudential oversight. Under the new macroprudential regulatory framework, the government should identify the central bank as the agency responsible for macroprudential regulation. Microprudential agencies should achieve information sharing with the central bank. The central bank should be responsible for controlling the systemic risks of the financial system and regularly report the results of analysis and related recommendations back to microprudential regulators, which should adopt appropriate measures in accordance with the recommendations of the central bank.

Finally, the government should study the regulatory boundaries of macroprudential regulation, paying attention to the costs and benefits of macroprudential regulation, and striving to maximize the effectiveness of regulation.

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Chapter 9

Institutional Construction (2)—Deposit Insurance System

9.1 National Conditions to Consider for China's Deposit Insurance System

9.1.1 *China's Implicit Deposit Insurance*

China has adopted implicit deposit insurance with government credibility as the guarantee. This is determined by the characteristics of China's national economy. With public ownership as the foundation of the banking system, the state provides credibility support to state-owned banks, providing a guarantee for deposits. People do not have to worry about the security of their deposits and deposit their money in state-owned banks, accepting low interest rates. Bank savings have always been the preferred way for people to dispose of unused funds since an environment of risk awareness has not been cultivated. Although the government has to bear a huge burden, this plays a very important role in the stable operation and development of the Chinese financial system in the midst of economic reform.

In order to help state-owned banks reach Basel capital adequacy ratio standards, in March 1998, the Ministry of Finance issued 270 billion yuan in special treasury bonds to supplement the capital of state-owned banks. In January 2004, the state again used US\$ 45 billion in foreign exchange reserves to inject capital into Bank of China and China Construction Bank. At the end of 2007, the People's Bank of China injected US\$ 20 billion into the China Development Bank to "significantly improve the capital adequacy ratio of the China Development Bank, strengthen its risk-fighting capabilities, and to help it fully implement commercial operations."¹ In November 2008, Central Huijin injected 130 billion yuan into Agricultural Bank of China and carried out joint-stock reform, improving the bank's balance sheet.

¹ Source: Public reports of the central bank capital injection into the China Development Bank.

In order to resolve the huge amount of non-performing assets accumulated over time at China's state-owned commercial banks, China organized the asset management companies of Cinda, Huarong, Orient, and Great Wall to collectively dispose of the non-performing assets of state-owned commercial banks. The asset management companies used leasing, transfers, restructuring, debt-to-equity transfers, and asset securitization to strip state-owned banks of 140 billion yuan in non-performing assets, and later conducted a number of asset peel-offs.

Zhang Zhengping and He Guangwen (2005) use banking industry panel data for 1994 to 2003 to empirically study the binding force of the banking market, which they found to be incredibly weak. This phenomenon was the same regardless of the type of bank. The implicit guarantee of state credit in reality covered all the sample banks. Li Yanping and Han Liyan (2008) use panel data to model and analyze the effectiveness of the economic effect of Chinese franchise value under the government's implicit deposit insurance. They discovered that the implicit insurance lowered the sensitivity of bank risk undertaking behavior to franchise value. The self-discipline mechanism of franchise value not only was almost completely ineffective for state-owned banks, but the risk-restraining effect was also not significant for non-state-owned banks. This indicates that Chinese banks receiving the full guarantee of implicit deposit insurance lack the motivation to develop comprehensive risk management.

In the early stages of China's liberalization, its implicit deposit insurance effectively stabilized the financial system at a time when the market economy was underdeveloped, there were few avenues for investment, investors had little ability to undertake risk, the financial sector was relatively closed, and financial innovation was basically nonexistent. But in the context of accelerating modernization and globalization of finance, implicit deposit insurance is looking increasingly anachronistic. It can easily lead to moral hazard, placing a massive burden on national finances. It leads to unfair competition among banks and is an obstacle to the establishment and improvement of the modern enterprise system. Zhang Yumei and Pan Sukun (2006) find that the franchise value of Chinese banks is on a downward trend, and establishing an explicit deposit insurance system is necessary. Wu Jun (2009) finds that with bank operating models that have not been completely transformed, irrational balance sheet structures, poor ability to resist risks, imperfect financial market development, and outdated measures and methods of financial regulation, establishing an explicit deposit insurance mechanism supplemented by stipulations meeting China's current national conditions would be beneficial to maintaining public trust in the financial system and would conform to the trend of structural changes to the franchise value of Chinese financial institutions. In short, it would be an important move to advance the sustained and healthy development of the economy. Peng Xingyun (2005) points out that establishing an explicit deposit insurance system is necessary from the perspective of the reform of China's financial system. He finds no evidence that the moral hazard triggered by the government's implicit guarantee is any worse than that which would be triggered by the establishment of an explicit deposit insurance system, but reducing the moral hazard risk of Chinese banks is not the reason for establishing a deposit insurance

system. The deposit insurance system should be considered in the context of the reform and opening of Chinese finance. The deposit insurance system is a risk isolation mechanism to respond to the outbreak of risk after market-oriented reform. Establishing a deposit insurance system is essential for improving monetary control mechanisms and strengthening the independence of central bank credit.

9.1.2 Barriers to Establishing an Explicit Deposit Insurance System in China

Scholars have also analyzed the obstacles to the establishment of an explicit deposit insurance system in China. Only by fully understanding these obstacles can China design and build a more complete explicit deposit insurance system. Wang Guogang (2007) finds that establishing a deposit insurance system will bring about the risk of narrowing the coverage area of credit. With interest rates not liberalized, financial operations cannot operate according to the risk-return mechanism, and the space to maneuver is narrowed. From an operational perspective, the insurance premium collection is a complex task. Defining the target of insurance, defining the time for the payment of premiums, and adjusting already paid premiums are all quite difficult.

Investing deposit insurance funds is also difficult. The administrative-type system of division by industry for Chinese finance also creates a regulatory difficulty for deposit insurance business. Because the status of deposit insurance institutions has not yet been sorted out, it is difficult to determine which regulator will supervise them. There are also regulatory mechanism issues, such as establishing regulatory indicators and information disclosure for business activities.

Li Hua and Ma Xingrong (2009) find that the lack of laws and regulations and an imperfect regime for bank bankruptcy are the institutional obstacles to the development of Chinese deposit insurance. They analyze the obstacles to China establishing an explicit deposit insurance system from the perspectives of micro operations and external conditions to specify the difficulties China may encounter in establishing such a system and the problems that will need to be overcome. The study provides valuable comments and suggestions for establishing an explicit deposit insurance system in China.

An imperfect credit rating system is also an obstacle to the establishment of a deposit insurance system in China. Credit rating agencies evaluate the credit of insurance institutions, providing a basis for the determination of premium rates and providing a signal for deposit insurance agencies to intervene with problem institutions in a timely matter. But China's current credit rating system is not equal to the task. State-owned banks make up a large proportion of the Chinese banking system, making for an imbalanced structure and increasing the difficulty of impartially designing deposit insurance agencies. Considering current individual vital interests, Chinese depositors and banks have an unfriendly attitude toward deposit

insurance, which is not conducive to the rollout of a deposit insurance system. After establishing deposit insurance agencies, the powers of the various state agencies will have to be redistributed, and a competition among departments for interests will be inevitable.

9.1.3 Conditions for Establishing an Explicit Deposit Insurance System in China

Li Menggang (2007) finds that China meets the conditions for establishing a deposit insurance system, and the time is here. The rapid and healthy development of the macro economy and the balanced operation of the financial system have created favorable external conditions for establishing a deposit insurance system. Since the establishment of the CBRC, the strength of banking regulation in China has increased substantially and the level of oversight has risen significantly, laying a solid regulatory foundation for the establishment of a deposit insurance system. The gradual improvement of the governance structure for legal persons in the banking sector, symbolized by share reform at state-owned banks, as well as improvements to accompanying legal and accounting systems, have provided good institutional conditions for the establishment of a deposit insurance system. From the perspective of an integrated indicator of government efficiency, rule of law, and the control of corruption, Meng Bo (2010) finds that China's macro-system environment is at a middle level compared to other countries. The regulatory environment is imperfect, but because the problems associated with implicit deposit insurance are greater, it is an urgent necessity for China to establish a deposit insurance system.

In recent years, the capital positions of China's major banks have improved significantly. The number of institutions meeting capital adequacy targets grew from eight in 2003 to all institutions in 2013. Non-performing loan provision coverage² has increased significantly after several years of development (see Fig. 9.1). This indicates from another perspective that the ability of China's main banks to make up for their loan losses and respond to loan risks has increased. China's major commercial banks are well capitalized and have gradually acquired the ability to bear market risk. The withdrawal of the implicit state guarantee will not affect their healthy development.

At present, the overall good momentum of China's economic development and rapid, balanced growth of GDP have laid the foundation for the establishment of an explicit deposit insurance system. The financial crisis was a turning point for China's economic structural adjustment and also created an opportunity to create an explicit deposit insurance system. The achievements of disposing of the

² Also known as the "provision adequacy ratio," this refers to the loan loss reserve ratio for non-performing loans (i.e. the use rate of provisions for doubtful and bad debts). It mainly reflects a bank's ability to make up for loan losses and prevent loan risks.

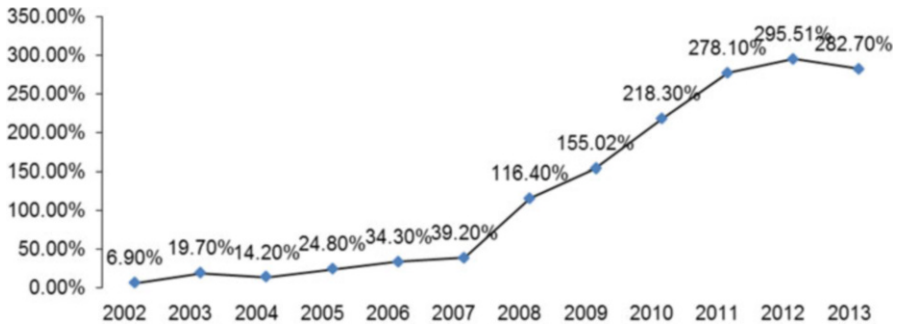


Fig. 9.1 Non-performing loan provision coverage ratios for major commercial banks (Source: Plotted according to data from the CEIC database and CBRC website)

non-performing assets of Chinese commercial banks have been significant, and remarkable results have been achieved in restructuring and listing. Non-state-owned commercial banks have also made remarkable achievements in implementing differentiated strategies. The operations of other non-bank deposit-taking institutions have improved as well. The positive development of micro entities in the deposit insurance system have created favorable conditions for its development. The level of oversight in the banking sector has improved significantly, and a market exit mechanism for failing financial institutions is being planned, creating the preconditions for the deposit insurance system to play its function. The corresponding legal system has been continuously improved and the legal environment gradually optimized. The main conditions for establishing a deposit insurance system in China have been met.

9.1.4 *The Structure of China's Deposit-Type Financial System*

China's deposit-taking financial institutions have developed to match the development of the Chinese economy, forming a relatively complete deposit institution system comprised of state-owned commercial banks, joint-stock banks, city commercial banks, city credit unions, rural commercial banks, non-bank financial institutions, postal savings banks, and foreign banks. Each institution has gone through expansion or mergers, acquisitions, or restructurings, and the structure is increasingly rational. But looking at yuan deposits at the end of 2013, the Big Four state-owned commercial banks³ held the vast majority of deposits. At the end of that year, China had 104.39 trillion yuan in yuan deposits, of which the Big Four state-owned banks accounted for 46.3 trillion, or 44.35 % of total deposits. National

³ Including ICBC, CCB, ABC, and BOC.

small and medium banks⁴ held 24.62 trillion yuan in deposits, accounting for 23.58 %.⁵

Looking at different types of deposits, at the end of 2013, corporate deposits and individual savings deposits were the main types of deposits. Corporate yuan deposits amounted to 52.08 trillion yuan, or 49.89 % of total deposits, and individual savings deposits amounted to 44.76 trillion yuan, or 42.88 % of the total. Together, these two categories accounted for 92.77 % of deposits.⁶ According to an April 2005 People's Bank of China sample survey of the deposit account structures of deposit-taking financial institutions 96.18 % of accounts had deposits of less than 50,000 yuan, accounting for 20.54 % of total deposits in the survey, 98.32 % had less than 100,000 yuan, accounting for 29.47 % of total deposits in the survey, 99.32 % had less than 200,000 yuan, accounting for 37.61 % of total deposits in the survey, and 99.7 % less than 500,000 yuan, accounting for 46.08 % of total deposits in the survey. To establish an explicit deposit insurance system, China must conduct a thorough investigation of the deposit account structure in order to determine a reasonable scope of guarantee and size of deposit insurance fund.

9.1.5 The Differences Between China and Developed Countries in Establishing a Deposit Insurance System

China's needs for establishing an explicit deposit insurance system are different from those of many developed countries (such as the U.S.). The U.S. established an explicit deposit insurance system in order to maintain stability in the wake of financial crisis (the Great Depression). For China to establish such a system without the presence of a systemic financial crisis provides a guarantee for the market-oriented reform of China's financial system. Different needs also result in different goals. China's goal is to adapt to financial market reforms, shift the government's role in the financial system, reduce the burden on state finances, establish market-oriented risk control mechanisms, and respond to the trend of financial globalization. In addition, establishing an explicit deposit insurance system can help to level the playing field for state-owned banks and other small commercial banks, improving social welfare.

Does the Chinese government's proposal to establish an explicit deposit insurance system in the wake of the 2008 financial crisis mean its needs are actually the

⁴ Refers to banks with total foreign currency assets of less than 2 trillion yuan and cross-border operations (foreign currency assets at the end of 2008 for each bank as the reference standard).

⁵ Source: People's Bank of China website historical statistics for financial institution credit balance of payments.

⁶ People's Bank of China website historical statistics for financial institution credit balance of payments.

same as those of developed countries? Clearly this is not the case, as can be seen from the foregoing analysis of Chinese and foreign deposit insurance needs. China should establish a deposit insurance system as a preventative measure against future crises once the financial industry is fully opened and liberalized. If we were to point to an inspiration for pushing forward with the construction of a deposit insurance system, it would be that we have seen the serious possibility of financial peril and are taking the initiative to strengthen China's preventative capabilities.

Different needs lead to different functions. Looking at the experiences of developed countries, the establishment of a deposit insurance system is likely to result in moral hazard and decline in market restraint (DeLonga and Saunders 2008; Ioannidou and Penas 2010). In China, the establishment of a deposit insurance system would be conducive to reducing moral hazard and strengthening market restraint. When the state provides a credit guarantee in the form of implicit deposit insurance, the risky behavior of banks is backed up by a guarantee, as are the assets of depositors. Banks can easily form a special love of risk, and depositors lack motivation to supervise banks. If a limited explicit deposit insurance system is enacted with the goal of protecting small depositors, a portion of large depositors will lose protections, but they will also have the strength to oversee banks. Market restraint will be strengthened and moral hazard contained.

In addition, a deposit insurance system would be conducive to improving the level of service at banks. Under the implicit state guarantee, depositors are willing to accept low interest rates, banks have low operating costs, the cost of misusing funds is low, and there is little motivation to pursue the optimal use of capital. After establishing a deposit insurance system, risk would increase for a portion of depositors, and they would demand returns on deposits commensurate with the risk. Abroad, deposit insurance has decreased interest expenses (Demirgüç-Kunt and Huizinga 2004). This would force banks to either provide higher interest payments or improve the quality of service. With interest rates in China still not fully liberalized, commercial banks have little room to make interest rate adjustments and can only retain customers by improving service quality.

Enhancing market restraint requires establishing an informed public notification mechanism for a deposit insurance system. But China requires a different mechanism than developed countries. Developed countries lay particular emphasis on stabilizing public trust in the banking system, avoiding runs on banks, and strengthening oversight of deposit insurance agencies. Prior to establishing an explicit deposit insurance system, the public education and notification system must cultivate risk awareness among depositors, strengthen oversight of the banking system, and enhance market restraint. After the establishment of an explicit deposit insurance system, the notification mechanism must focus on educating depositors on protecting their own rights and interests, solidifying confidence in the banking system, and strengthening consciousness of conducting oversight of deposit insurance agencies.

9.1.6 China's Timing for Establishing an Explicit Deposit Insurance System

As to when to establish an explicit deposit insurance system, Yan Haibo (2004) proposes basing the rollout on IMF recommended practices of establishing the system when the financial market credit system has been established, regulation of financial institutions and market exit mechanisms have been standardized and perfected, the banking system or the majority of banks have completed restructuring, solvency and profitability are exhibiting a virtuous cycle, and the overall financial system is on a stable trend. In such a situation, the costs of establishing a deposit insurance system will be at their lowest, and its operations will have the greatest effect. At present, with the exception of a few mechanisms that still need to be improved, China has essentially met these conditions. The limited impact of the financial crisis reflects the health of China's financial system, the reform of unfavorable factors, and the key time to build critical infrastructure. China should consider the timely introduction of an explicit deposit insurance system.

9.2 Choosing a Path for the Construction of an Explicit Chinese Deposit Insurance System

When designing the deposit insurance system, applying some additional constraints on deposit insurance can work to reduce moral hazard and adverse selection. Beck (2002) summarizes these constraints as follows: (1) Designing marginal loss in the private sector in order to prompt depositors to oversee banks and therefore improve market restraint; (2) Institutionalize the management and financing of the deposit insurance system through incentive compatibility. Adverse selection can be reduced by formulating clear obligations deposit insurance must meet and by introducing interest rates that are adjusted according to risk. Private investment and management can reduce the agency problem between owners and managers. But full privatization is impossible because the government and taxpayers will always want to intervene, especially in the event of a major crisis.

Demirgüç-Kunt et al. (2006) find that five basic questions should be considered when designing a deposit insurance system: How will deposit insurance impact the stability of the banking system? How will deposit insurance impact market restraint? How will deposit insurance impact the development of finance? What role will deposit insurance play in risk management? What factors impact the adoption and design of deposit insurance? Only by answering these questions can a deposit insurance system adapted to the environment of the country be designed. Hoelscher et al. (2006) conduct a full analysis of deposit insurance system design and execution. They find that explicit deposit insurance systems are more in-line with national economic development realities. They stress that each country must

fully consider its goals and national environment when establishing a deposit insurance system to ensure that the system can be established with minimum punitive measures and financial distortions.

China currently has many differences with other countries in its establishment of a deposit insurance system. But after establishment, the operating mechanism will be the same. Therefore, in designing a deposit insurance system, China should consider its particular national conditions as well as the post-establishment operating mechanism. It must conduct systemic analysis to establish a Chinese model for deposit insurance systems.

Yan Haibo (2004) finds that the establishment of a deposit insurance system is a systemic project, and that an effective deposit insurance system requires the effective coordination of the reform of other systems. Zhang Wei (2005) proposes that while establishing a deposit insurance system, a financial early warning system adapted to national conditions must also be established in order to supplement the information asymmetries the deposit insurance system unable to address, reduce moral hazard, and provide the basis for deposit insurance premium collection. Wang Yongli (2005) recommends that when establishing a deposit insurance system, the statutory deposit reserve proportion should be reduced correspondingly and transformed into deposit insurance. Tang Hongbo (2008) states that improving bank corporate governance is a prerequisite for overcoming the negative effects of deposit insurance. The improvement of bank corporate governance can significantly improve the effectiveness of the deposit insurance system. Thus, when the deposit insurance system is ready to roll out, strengthening bank corporate governance is of equal importance. Li Hua and Ma Xinrong (2009) advocate accelerating legislation for the deposit insurance system, formulating special laws to standardize bank bankruptcy, and turning deposit insurance agencies into the receivers and liquidators of failed banks. Accompanying infrastructure is an important guarantee of the success of a deposit insurance system. In actual operation, accompanying infrastructure should be established according to needs and conditions.

Chinese scholars have explored the establishment of a Chinese deposit insurance system from multiple levels. They have studied the targeting mechanism of establishing a Chinese deposit insurance system and stressed the need for its establishment from different angles. They have the timing principles of establishing a deposit insurance system, made empirical analysis of the reality of the Chinese deposit insurance system, explored the accompanying infrastructure required by a deposit insurance system, analyzed the barriers and necessary conditions for the establishment of such a system in China, proposed specific design programs, and have achieved many valuable results. However, few have made comprehensive analyses of China's macro economy, institutional environment, and micro institutional structure or proposed specific implementation programs and routes.

9.2.1 Establishing a Promotion Mechanism

The government's provision of implicit deposit insurance means that financial institutions and their managers do not necessarily have to bear the costs of poor performance and poor management. Nor do they have to worry about lack of new deposits due to poor management. Because of the government credit guarantee, depositors pay little attention to risk profiles when selecting a depository bank, and they are willing to accept low interest rates. Under an explicit deposit insurance system, banks would have to pay premiums, and the regulatory functions of insurance agencies would cause them to face additional oversight, thereby increasing costs. Oversight from large accounts would also act as a restraining force on their business activities. This is an important reason banks are unwilling to establish a deposit insurance system, or are at least reluctant to do it on their own initiative.

When the government provides implicit deposit insurance, deposits have almost no investment risk. After the establishment of a deposit insurance system, the assets of a large portion of depositors would lose this guarantee. In order to protect their own assets, these depositors would have to bear the cost of carrying out oversight. The establishment of a deposit insurance system would have almost no effect on smaller depositors. But in the event of bank failure, they will have to pay time and waiting costs. Therefore, depositors also lack the incentive to push for the establishment of a deposit insurance system.

Demirgüç-Kunt et al. (2008) use data from 180 countries from 1960 to 2003 to analyze the factors influencing a country's financial safety net decisions. They focus on the roles pressures exerted by private interest groups, external influences, and political system factors play in the adoption and design of deposit insurance systems. After controlling for macroeconomic impact, the quality of banking regulation, and institutional development factors, they find that private and public interests and external pressure to imitate the rules and systems of developed countries are the main factors determining the timing of adoptions. Deposit insurance is more likely to be adopted during a period of crisis, which may be because it is easier to coordinate departments during a crisis. After controlling for other factors, the political system is a main factor in a country's decision to establish a deposit insurance system. At present, China lacks pressure from private interests to establish a deposit insurance system. Although there is pressure to imitate the systems of developed countries, this is still not sufficient for China. Excluding these factors, only the Chinese government can promote the establishment of a deposit insurance system, for the reason that it is in the public interest. After determining the main drivers of the deposit insurance system, the corresponding driving mechanisms must be set up.

Establishing a Driving Mechanism, Clarifying Responsibilities

After the decision to establish an explicit deposit insurance system, a special department must be set up to facilitate its implementation. Members of the department should be familiar with China's macroeconomic development, the reform of China's financial system, the real situation of the Chinese banking system, and the law in China. Thus, experts from the central bank, CBRC, NDRC, Ministry of Finance, and the legal system can be transferred to form the commission to promote the establishment of the explicit deposit insurance system.

Conducting Situational Research, Servicing System Design

In order to develop a fully feasible promotion plan and provide reference for the design of the deposit insurance mechanism, the commission must study national conditions. First, members of the commission must analyze China's economic environment and institutional conditions. The economic environment mainly includes the level of macroeconomic development, the health of the financial system, and the structure of the banking system. Institutional conditions include the banking system evaluation system, internal governance, the strength of prudential management, the cooperation conditions, and legal frameworks. Second, the commission must understand the detailed deposit account structure, including types of deposits, the distribution of deposit amounts among different deposit categories, lengths of deposit, categories of depositors, and the relationships between deposits, GDP, and fiscal revenue in order to determine the optimal scope of guarantee and lower limit for the deposit insurance fund. Third, the commission must understand the attitudes of the relevant institutions and individuals toward the establishment of a deposit insurance system and how they may be affected. Finally, the commission must carry out insurance premium collection stress tests to find the upper limit for the size of the deposit insurance fund.

Implementing Public Education, Strengthening the Micro Foundation

Public education includes education of depositors and deposit-taking financial institutions and reversing unfriendly attitudes toward the deposit insurance system. Depositors should be educated on the long-term benefits of the system and made to recognize the necessary trend of market-oriented financial reforms and the serious situation of the lack of post-crisis deposit protections, as well as the current advantages for China in establishing a deposit insurance system. China can take advantage of channels such as radio, television, and the Internet for publicity and can make scheduled and unscheduled reports and answer public questions through the media.

Identifying Institutional Responsibilities, Establishing Coordination Mechanisms

The establishment of a deposit insurance system will cause the redistribution of existing official powers among departments. For example, the authority of the central bank, CBRC, and deposit insurance agencies to regulate and obtain information from banks will need to be redistributed, as well as the authority of the CBRC and deposit insurance agencies to participate in the implementation of a market exit mechanism. The regulatory powers vested in deposit insurance agencies also need to be acknowledged. The establishment of a deposit insurance system should first define these relationships. The distribution of authority and coordination mechanisms should be done in as much detail as possible, and practical distribution principles should be developed for those unable to be done in detail.

Coordinating Resources, Optimizing Mechanism Design

On the basis of the study of national conditions, a deposit insurance system that balances interests of all sides, restrains costs, and minimizes risk should be designed. Professionals must be developed in this regard, and the promotion committee can complete this through coordination with various universities and research institutes.

Conducting Simulation Experiments, Providing the Basis for Implementation

After design is complete, system simulation tests should be carried out. The relevant institutions and individual representatives should be invited to participate and asked for their opinions and suggestions. Deficiencies in the system should be unearthed and additional studies conducted, and the views of all participants should be combined to rectify problems. Similar work should be repeated several times until the deposit insurance system is feasible in reality.

9.2.2 Improving External Conditions

Improving the Banking Sector's Credit Rating System

Credit ratings are an important part of the information disclosure systems and the means by which to carry out scientific and objective evaluations of bank credit. Credit ratings are also important indicators by which depositors and regulatory agencies can understand the riskiness of banks. China should accelerate the establishment and improvement of laws and regulations regarding the bank credit rating

system, identify responsibilities, authorities, and behavioral norms of credit rating agencies, strengthen policy guidance of credit rating agency operations, expand cultivation of credit rating professionals, and strictly assess their professional literacy and ethics.

Improving Banking Sector Corporate Governance Structures

The banking sector corporate governance structure includes external management and internal governance. External management mainly refers to external audits from the central bank, CBRC, and other regulatory authorities to supervise and urge commercial banks to advance and improve internal management systems. Internal governance mainly refers to the identification and demarcation of responsibilities of the shareholders meeting, board of directors, board of supervisors, and management, as well as reasonable cash compensation and equity incentive mechanisms. In addition, banks should establish internal audit systems and strengthen self-monitoring self-correction capabilities.

Continuing to Enhance the Effectiveness of Prudential Regulation

Strong prudential regulation is very important for the smooth functioning of the deposit insurance system. If strong prudential regulation is lacking, deposit insurance agencies will not only not be able to play their role in stabilizing finance, but they will also face greater risks themselves, thereby increasing uncertainty in the financial system. The People's Bank of China and the CBRC have accumulated ample regulatory experience and have played very important roles in promoting financial stability in the past. But with the rapid development of finance around the world, regulators must match pace in order to achieve their regulatory objectives. Establishing a dynamically optimized regulatory mechanism will allow bank regulation to keep up with the times.

Establishing a Long-Term Cooperation Mechanism

The deposit insurance system cannot resolve systemic financial crises. It should effectively coordinate with the central bank, CBRC, the National Audit Office, and the Ministry of Finance to establish a mechanism for close cooperation and information sharing in everyday work. An information sharing mechanism and important events reporting system should be established between all parties, and the collection, collation, dissemination, and transfer of information should be standardized. When commercial banks experience liquidity crisis, and when the funds of deposit insurance agencies are insufficient to support banks or repay depositors, the central bank should provide emergency loans (or the central bank should provide emergency loans directly to the problem financial institution) to avoid a run on the

banks and maintain the stability of the financial system. In order to fundamentally reduce the harm of bank failure, coordination between deposit insurance agencies and the CBRC strengthens regulation regarding market access, scope of business, capital adequacy ratios, information disclosure, qualifications for senior management, risk management and internal controls, and market exit, promoting sound operations.

In the process of globalization, the WTO Agreement requires China to fully liberalize its banking sector. The risks faced by Chinese banks are thus global. Chinese deposit insurance agencies will have a difficult time completing their financial stability task alone with the interference of global risks. On the condition of confidentiality, deposit insurance agencies can exchange information with overseas deposit insurance agencies and other financial security departments and launch extensive cooperation between countries such as in coordinating to deal with problem institutions. “Uncoordinated policy will result in excessive regulation and excessive deposit protection” (Hardya and Nieto 2010). Institutionalizing some cooperation through bilateral or multilateral agreements will facilitate timely coordination in times of crisis and reduce the spread of crisis from strong regulatory countries to China (Buch and DeLong 2008).

Providing Legal Support

Introducing laws and regulations for the deposit insurance system as soon as possible and making clear provisions for the setting up, functions, powers, scope of guarantee, funding sources, premium collections, handling of problem institutions, compensation and recover, personnel protections, and other deposit insurance agency issues will provide a legal basis for the implementation of the deposit insurance system and provide legal protections for prudent behavior, thereby enhancing the credibility of the deposit insurance system.

9.2.3 *Creating Internal Mechanisms*

In One Step or in Stages

Fu Bo and Zhu Zhiqin (2009), considering from the viewpoint of institutional settings, find that a deposit insurance system should be established in two steps. It should first be established within the central bank and then separated when conditions are ripe. Meng Bo (2010) also advocates for the phased establishment of a deposit insurance system in China but conducts his analysis from the perspective of deposit insurance members. In the first phase, the deposit insurance system is made to play its role of rewarding the good and punishing the bad, but state-owned commercial banks are not incorporated. In the second step, state-owned commercial banks are incorporated into the deposit insurance system.

Although setting up a deposit insurance agency within the People's Bank of China would be simple, it would also easily influence the central bank's currency control mechanisms and credit independence. Temporarily not admitting state-owned commercial banks to the scheme would keep the scale of the deposit insurance system small. A small deposit insurance fund would restrict the use of the deposit insurance system and would not be conducive to fair competition in the banking sector. Therefore, China should establish an independent deposit insurance agency and a fair deposit insurance mechanism to be constantly improved in later operations.

Single Function or Integrated Functions

Whether the deposit insurance agency is a "teller window" or "risk minimization manager" depends on the choice of goals made by policy makers. "Teller window" would be a single function, while "risk minimization manager" would be a series of related functions. If the deposit insurance agency were to be only a "teller window," the central bank could complete the task immediately, but the deposit insurance system would not be as useful as it could be. Thus, China's deposit insurance agency should be an integrated functional department. Its functional arrangements should make it a "cost restraining risk minimization manager," and all functions of the deposit insurance agency should be developed around this idea. The deposit insurance agency has the obligation to protect depositors, supervise and inspect member institutions, deal with problem institutions, and maintain financial stability. When member institutions experience problems, the deposit insurance agency should employ warning, intervention, and market exit measures, compensate depositors, stabilize public confidence, and maintain financial stability. Integrated functionality is conducive to meeting the goal of risk minimization under cost restraints through the coordinated use of various measures by the deposit insurance agency.

The deposit insurance agency should have the necessary powers to fulfill its functions. The Chinese deposit insurance agency should have the authority to examine the basic operating conditions, accounting and financial statements, business activities, risks, and non-performing loans of member institutions (including on-site and off-site inspections), as well as the authority to make recommendations and issue warnings according to circumstance. When risks exceed warnings, the agency needs the authority to report the problem to the central bank and coordinate with the central bank to strengthen market oversight and promote the industry self-discipline of deposit institutions. The deposit insurance agency should have the authority to examine and approve access to and withdrawal from the deposit insurance system, participate in the development of contracts, participate in the formulation of internal budgets and procedures of banks, make timely interventions in banks, and obtain accurate information to ensure the ability to promptly meet their obligations to depositors. In handling the market exit mechanism, China

should endow the deposit insurance agency with subrogation repayment priority⁷ in order to guarantee the security and stability of the deposit insurance fund and protect the interests of depositors (Chen Xiangcong 2006).

Mandatory or Voluntary Membership

Many scholars (Such as Li Yunhong and Jiang Hai 2009) advocate choosing a mandatory deposit insurance system rather than a voluntary one. The membership qualifications of the Chinese deposit insurance system should be mandatory. This is mainly because state-backed banks have no incentive to participate in the deposit insurance system. Refusal by state-owned commercial banks to participate in the deposit insurance system would not be conducive to the standardization and legalization of the construction of the deposit insurance system, nor conducive to strengthening oversight of the risky behavior of state-owned commercial banks. Due to their large proportion of total deposits, the non-participation of state-owned commercial banks would directly impact the size of the Chinese deposit insurance system. It would not be conducive to fair competition in the financial system for small commercial banks participating in the deposit insurance scheme to be subject to additional oversight and bear additional fee burdens when competing with state-owned commercial banks.

China's regional commercial banks, city commercial banks, and urban-rural credit unions are small, have limited ability to withstand risks, and have little room for new lines of business. It is difficult for some financial institutions to digest risk in the development process. If voluntary insurance is the method employed, many banks will choose not to participate in order to reduce costs, and the system will be unable to dispel the risks from these institutions. Such a deposit insurance system would be useless. Because the deposit insurance system involves all levels of society, China must employ a mandatory deposit insurance scheme in which all qualified deposit-taking financial institutions in China must participate, automatically assigning their membership. These institutions should take the initiative to pay premiums, provide relevant information, accept oversight from deposit insurance agencies, and actively coordinate with the work of deposit insurance agencies. Assets of foreign-owned banks make up a small portion of China's banking system and have few yuan deposits. Their sphere of influence is small, and they are subject to strict regulation when accepting yuan deposits. Their depositors also have a strong ability to bear risk. For a time, they can be left out of the deposit insurance system.

If in the process of performing its inspection duties, a deposit insurance agency finds a that a member institution has brought about a significant impact due to engaging in illegal, reckless, or high-risk business activities and not listening to

⁷Deposit insurance agency subrogation repayment authority means that after compensating depositors for their losses, the agency has the same subrogation rights priority as general creditors.

dissuasions, the deposit insurance agency would have the authority to revoke to cancel the institution's insurance. But cancellation of membership would have an adverse impact on society. The loss from the cancellation of deposit insurance membership would outweigh the benefit, impacting the banking system. Because this would be equivalent to a public announcement of the bank's misconduct, it would cause public distrust of the bank and a run on the bank could occur. To this end, the deposit insurance agency should take appropriate measures, such as continuing to insure the bank's existing deposits and setting an appropriate time period for the bank to rectify the situation. If in this period the bank can improve, it could rejoin the deposit insurance system after an audit.

Limited Coverage or Full Coverage

Hardya and Nieto (2010) find that the banking insurance system should not only set a minimum guarantee but also a maximum guarantee. Although in a crisis the upper limit would be difficult to observe, this principle would be effective in handling the failure of individual banks. Chinese scholars suggest that China's deposit insurance system should cover only private savings, not corporate deposits, interbank deposits, and fiscal deposits (Li Yunhong and Jiang Hai 2009).

Because there is a U-shaped relationship between the scope of deposit insurance coverage and the risky behavior of banks (Angkinand and Wihlborg 2010), China's deposit insurance coverage should seek the point that minimizes risky bank behavior. In the early stages of implementation, the types of deposits guaranteed should include individual savings deposits, which account for nearly 43 % of total deposits. Effectively protecting these deposits would be conducive to stabilizing public confidence in the banking system in the process of financial system reform. In addition, as for corporate deposits, small companies that collect capital and labor in one entity should be included in the deposit insurance system. This portion of businesses provides employment and improves lives but generally lacks the ability to prevent and control risks. Foreign currency does not circulate freely in China, and the proportion of foreign currency deposit is small and fluctuates with changes to the exchange rate. Thus, early in the establishment of the deposit insurance system, these can be excluded. Other forms of deposits, such as high-interest savings, corporate deposits, interbank deposits, insider deposits, and fiscal deposits would be excluded as well. These depositors have ample resources of their own. Excluding them from the deposit insurance system would enhance market restraint and reduce insurance premiums for banking institutions.

Pre- or Post-incident Financing

Only ten countries have deposit insurance systems with no expenses, and most of them are in Europe. Most countries obtain at least some funding from insurance fees paid by members and obtain additional funding from the government or from the

government in times of crisis (Demirgüç-Kunt and Sobaci 2001). The main portion of funding should come from premiums paid by member banks. The method of collection also has a tremendous impact. A well-designed premium collection method can reduce fiscal costs, reduce the burden on banks and taxpayers, reduce moral hazard, and maintain the smooth running of the deposit insurance system. A poorly designed premium collection method can have the opposite effect.

Government withdrawal from deposit insurance would test the confidence of Chinese citizens, and post-incident funding would not help the situation. Pre-incident financing would help to stabilize public confidence. China should employ a hybrid model dominated by pre-incident financing. The establishment of a deposit insurance system will increase costs for Chinese commercial banks. Combined with external pressure from financial liberalization, there is a lack of motivation for the establishment of a deposit insurance system. Thus, the government should provide the initial funding. Supplemental deposit insurance funding would mainly come from insurance premiums paid by member banks. When the fund is insufficient to cope with the impact of a crisis, the deposit insurance agency may issue a financial stability fund or bonds to raise funds, and the Ministry of Finance and central bank can also inject capital. Contributions can be adjusted with changes to the economic development situation. In times of crisis, post-incident financing can be implemented, as the case requires.

When making the choice of financing mechanisms, China should pay attention to fairness in the design of the deposit insurance financing system and use the expected loss pricing theory as the basis for the design of the system. This can also serve as an effective tool for managing the size of China's deposit insurance fund and for assessing risk (Ling Tao et al. 2007).

Due to a lack of empirical data regarding Chinese bank failures, the size of financing cannot be determined based on historical data or survey data. We suggest a fund financing size of 8% of guaranteed deposits (see bank capital adequacy ratios). Using 2005 survey data, we estimate corresponding fund sizes for different guarantee amounts and calculate their proportion to total deposits, GDP, and fiscal revenue. We recommend that a comprehensive comparison be used to determine the optimal size of the fund (see Table 9.1).

The greater the size of the fund in comparison to total deposits, the stronger the stabilizing effect will be; the smaller the size of the fund in comparison to GDP or fiscal revenue, the lighter the burden placed on the economy. It is necessary to find the right combination point and consider factors such as the guarantee limit and the economy's ability to adapt in order to determine the optimal size of the fund. For example, a fund size with a limit of 50,000 yuan would put little pressure on GDP and fiscal revenue, but its proportion of total deposits would also be small, and it would play a small role in stabilizing the banking system. The effect of a fund size with a 500,000 yuan limit would be the opposite. Compared to these two extremes, fund sizes with limits of 100,000 yuan or 200,000 yuan would play an intermediate role in stabilizing the economy. The former fund sizes can be employed when the economy is in extreme states, according to the situation. In general economic states, a fund size with limits of 100,000 yuan or 200,000 yuan can be employed in

Table 9.1 Fund sizes for different guarantee amounts (Unit: Percent)

Quota Proportion	Under 50,000 yuan	Under 100,000 yuan	Under 200,000 yuan	Under 500,000 yuan
Fund Size / Total Deposits	4.82	5.18	5.50	5.84
Fund Size / GDP	7.53	8.08	8.59	9.12
Fund Size / Fiscal Revenue	43.75	46.99	49.94	53.02

accordance with the situation, using total GDP or fiscal revenue and the structure, as well as premium collection pressure tests obtained from surveys of national conditions (He Dexu et al. 2010). In order to formulate feasible guarantee limits and fund sizes, China must conduct a detailed investigation of the present deposit account structure and obtain data to serve as the basis for analysis for determining an applicable amount.

Fixed Rate or Risk-Adjusted Rate

In practice, almost all countries adopt a uniform premium rate. Some scholars have found that the reason for this is information asymmetry (Freixas and Rochet 1998). A uniform premium rate is simple to carry out but can easily lead to moral hazard and adverse selection. When a deposit insurance agency provides a guarantee, banks tend to take risks because the risks have been spread out. Banks inclined to risky behavior and with less than sound operations are more willing to participate in a deposit insurance scheme, and in order to have sufficient funds to respond to these risks, the deposit insurance agency may ask for higher premiums, which could exclude well managed banks from the scheme. Studying 60 financial institutions, DeLonga and Saunders (2008) find that after the introduction of fixed-rate deposit insurance, banks and trust companies are more inclined to take on risk, although some well-run banks reduce risky behavior.

Literature on deposit insurance pricing generally finds that bank willingness to take on excessive risk is closely related to institutional arrangements (Klueh 2005). Therefore, scholars have proposed establishing a risk-adjusted pricing model, which sets differentiated premium rates based on different levels of exposure to risk. Banks at high levels of risks would have to pay higher premiums, thus increasing the cost of risk taking and limiting moral hazard.

But others have also questioned risk-adjusted premiums, not denying that they would be an effective tool for restricting bank exposure to risk, but saying that premium pricing should be coordinated with other regulatory instruments to produce effective methods. Most of the literature focuses on capital regulation and its

relationship to insurance systems. In an asymmetric information environment, these documents tend to employ multiple regulatory instruments to produce effective responses (Giammarino et al. 1993).

Because the Chinese banking system is characterized by administrative monopoly and dominated by oligarchs with coexisting small financial institutions, China could employ “premiums differentiated by class of institution” in accordance with the risk resilience of different classes of banks, on the foundation of determining basic insurance premiums according to deposit amount. Once conditions are right, differential rates can be determined based on bank risk rating (Fu Bo and Zhu Zhiqin 2009). This method takes into account the special situation of China’s financial system and puts forward a new way of thinking about differential rates.

Chinese banks are still polarized, with strong state-owned commercial banks that are developing well and other small and medium banks that are just starting out. China should therefore adopt a differential rate collection method, classifying state-owned commercial banks separately from other, smaller banks. Small banks face greater risks and risk-adjusted rates can be implemented in accordance with the capital adequacy ratio, non-performing loan rate, internal controls, profitability, and liquidity positions of the banks. Because their total deposits are small, the cost of implementing differential rates would be small. State-owned commercial banks are strictly regulated, and there is little difference in risk among banks. China can employ a unified, intermediate rate for state-owned commercial banks (with the rate for low-risk banks lower than that of state-owned banks and that of high risk banks higher). Employing a unified rate for a vast amount of deposits will reduce cost. Such a classification-based rate structure will reduce China’s cost of collecting deposit insurance fees overall. Employing an intermediate-level rate for state-owned commercial banks will be conducive to fair competition among commercial banks. Differential rates for small banks will incentivize them to improve their level of operations and reduce risk.

Administrative-Based Exit or Market-Based Exit

The handling of market exit of insured institutions by the deposit insurance agency can be divided into non-participation, appropriate involvement, and full participation. When designing its deposit insurance system, China should consider the handling of problem institutions and fully participate in the exit of problem institutions from the market (Wang Zili 2006). At present, China’s market exit mechanism is government-led, and there are no sound laws for the exit of financial institutions from the market to judge by. Market exit by financial institutions is unreliable. Exit decisions are often dependent on the subjective judgments of the administrative body in charge, making decisions somewhat random. Nor does this comply with the trend of transformation of the economic functions of the Chinese government. After establishing an explicit deposit insurance system, the exit of institutions from the market is the ultimate means of handling problem institutions and important channel for guaranteeing the security of the deposit insurance fund.

In order to guarantee the orderly and effective handling of problem financial institutions by the deposit insurance agency, the agency will have to enforce the market exit procedures of problem institutions. Therefore, China should establish a market exit mechanism within the deposit insurance system.

The market exit mechanism can be conducted by way of merger/acquisition and restructuring, or by bankruptcy and liquidation. Merger/acquisition and restructuring refers to choosing a willing, operationally sound financial institution to merge with or acquire the problem institution and carry out restructuring. The deposit insurance agency should review the qualifications of these institutions and then select the most appropriate institution for the operation. In the merger/acquisition and restructuring process, the deposit insurance agency can offer financial assistance to the institution carrying out the merger/acquisition and restructuring, or provide indirect financial assistance by purchasing the non-performing assets of the problem institution. Bankruptcy and liquidation refers to carrying out bankruptcy and liquidation proceedings for a bank where the problem is extremely serious and the cost of rescue too high, or where there is no financial institution willing to take over. The deposit insurance agency would then compensate the institution's depositors. In the bankruptcy and liquidation process, the deposit insurance agency should quickly, appropriately, and fairly compensate depositors, reduce processing costs, reduce damage to the market, recover assets to the extent possible, strengthen market restraint through legal means, and prevent negligence and other immoral acts.

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Chapter 10

Institutional Construction (3)—Securities Investor Protection System

China has had a securities market for over 30 years. It has developed to a large scale, and it has become an important financing channel for Chinese businesses. Securities investors are the primary constituent elements of the stock market. Without investors, a market is out of the question. Thus, the confidence of investors is a prerequisite for the positive development of the stock market. Numerous theories and empirical studies show that investor protections are key elements for the sustainable and healthy development of the securities market: the better the protections, the healthier the securities market and the more confident the investor in the market, which is beneficial to the development of the capital market (Zhu Congjiu 2002). The International Organization of Securities Commissions (IOSC) lists protecting investors first among the three main goals of securities regulation (protecting investors, ensuring market fairness, and ensuring efficiency and transparency to reduce market risk). The IOSC states, “Investors should enjoy protections against being misled, manipulated, or deceived, including through insider trading, cutting in the transaction line, and misuse of customer funds.”

Securities are becoming the main place for Chinese citizens to invest funds, which can be seen in the results of a central bank survey of Chinese urban and rural depositors (see Table 10.1).

According to the results of this survey, the intent of investors to save and invest underwent a big adjustment in 2007 and 2008 during fluctuations in the stock market when both fell. But in the several years after, willingness to save remained relatively stable, while willingness to invest fluctuated slightly but was also relatively stable and occupied a considerable proportion, indicating that the stock market has gradually become another important site for people to invest their capital. Chinese citizens have become an important force in securities investment. However, as small investors, they lack the technical expertise required by the securities market. They have few sources of information and little ability to protect themselves. They lack the strength to oversee listed companies and securities brokers and can easily fall victim to the stock market. If the misconduct of

Table 10.1 Household Savings and Investment Willingness

Intent	1Q2007	1Q2008	1Q2009	1Q2010	1Q2011	1Q2012	1Q2013	1Q2014
Deposits	59.4 %	35.4 %	37.5 %	43.6 %	41.6 %	46.9 %	44.5 %	44.2 %
Investment	30.3 %	27.6 %	32.9 %	41.2 %	44.2 %	35.6 %	37.6 %	38.2 %

Note: The table shows the number of residents with intent to deposit and intent to invest (bonds, stocks, funds) as proportions of all surveyed. In 2013, real estate was added to intent to invest

Source: Arranged and plotted according to the central bank survey of urban and rural depositors

institutions causes widespread damage to the assets of small investors, they will lose confidence in the securities market, which would be extremely unfavorable to the development of the securities market, and even the economy and society.

Before delving into the study of protections for securities investors, we need to clarify the relationship between investor protections and securities investor protections. First, securities investors are the entities of securities investment. This refers to market entities with profit as their goal, which invest in securities, exercise securities rights, and bear the risks and rewards of securities investment. They are also the natural persons, legal persons, or other economic organizations that purchase shares of negotiable securities such as stocks, bonds, and funds and their derivative products (Zhou Zhengqing 2006). Literally, investor protections extend beyond protections for securities investors, and the former should encompass the latter. Looking at the number of existing studies, Chinese studies of investor protections far outnumber those of securities investor protections. In terms of the content, studies of investor protections mainly focus on corporate governance, studying the issue of how outsiders (small investors) can prevent insiders (large investors, directors, and managers) from harming their own interests. Studies of securities investor protections not only pay attention to how investors guard against internal principal-agent problems, but also how investors keep listed companies and securities companies from harming their own interests. One can see that although the exterior extent of securities investor protections is smaller than investor protections, the content being protected is much larger.

10.1 China Securities Investor Protection in Practice

Protections for securities investors in China have gradually developed with the establishment of the stock market, growing out of nothing, from weak to strong, and evolving from virtual to real. Many scholars have studied the efforts of the governmental departments involved.

10.1.1 The Development and Current Status of Securities Investor Protections

In order to protect the confidence of small investors and respond to the constantly surfacing issues of irregular operations at securities companies, in February 2005, drawing from foreign experience, and under the active promotion of the CSRC and other regulatory authorities, China officially launched the “Securities Investor Protection Fund.” The fund was set up to be a long-term mechanism to prevent and dispose of the risks of securities companies, maintain economic order and the common interests of society, protect the legal rights and interests of securities

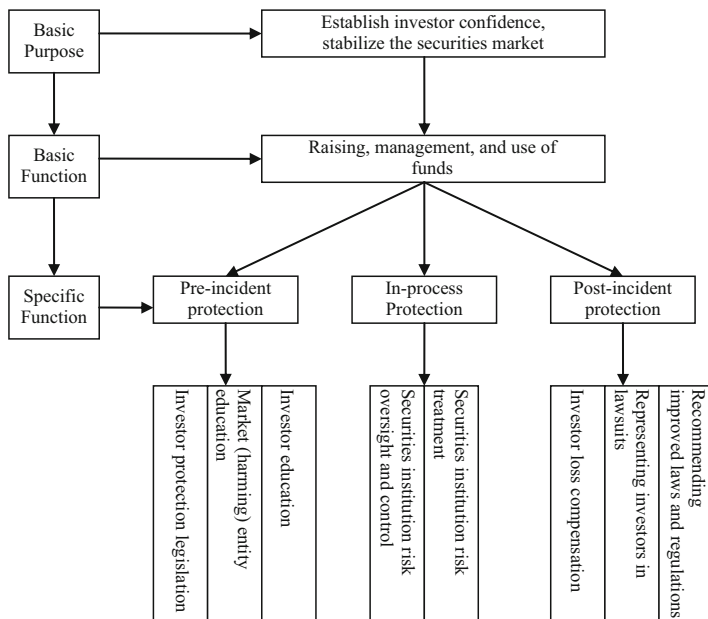


Fig. 10.1 The functional relationships of the China securities investor protection fund (Source: Theoretical study of the China securities investor protection fund company—“Zhongguo zhengquan touzizhe baohu jijin yunxing boshi yanjiu [Study of the operating model of the China securities investor protection fund].”)

investors, and promote the orderly, healthy development of the securities market. Article II of the “Zhengquan touzizhe baohu jijin guanli banfa [Management Approaches for the Securities Investor Protection Fund]” states, “The Securities Investor Protection Fund refers to capital raised in accordance with the Approaches, to be used for protecting the interests of securities investors in the process of preventing and disposing of the risks of securities companies.” The functions of the Securities Investor Protection Fund are shown in Fig. 10.1.

As an important component of the investor protection system, when a securities company closes or goes through bankruptcy, national policy can be used to protect the interest of investors, stabilizing and strengthening investor confidence in the development of the Chinese securities market, preventing the transfer and diffusion of securities company risks, and complementing existing regulatory authorities and securities industry associations and other self-regulating organizations.

As the management institution of the Securities Investor Protection Fund, in accordance with the “Management Approaches,” the main functions of the Securities Investor Protection Fund Company are to: (1) raise capital and manage and operate the fund; (2) monitor securities company risks and participate in the disposal of these risks; (3) compensate creditors in accordance with relevant national regulations when the license of a securities firm is revoked, it undergoes

bankruptcy or closure, or is subject to compulsory regulatory measures such as administrative receivership or trusteeship management; (4) organize and participate in the liquidation of securities companies that have had their licenses revoked, or have closed or gone bankrupt; (5) manage and make arrangements for assets collected as compensation to maintain fund interests; (6) make recommendations to the CSRC for regulation and handling when major risks that could endanger investor interests or securities market security are discovered; (7) carry out other functions approved by the State Council. As of the end of 2013, the Securities Investor Protection Fund Company had cumulatively used the market to raise funds for the protection fund of 1.09 billion yuan, of which 641.3 million yuan was used to make good on customer securities transaction settlements and 452.8 million yuan was used to purchase individual debt.¹ The Securities Investor Protection Fund Company has established an integrated investor protection platform of “education, advocacy, and investigation,” as well as a normal investor protection system combining “monitoring, evaluation, and service,” using network resources to educate investors and disclose risks.

China has established risk adjustment-type methods for Securities Investor Protection Fund cost recovery. “Management Approaches for the Securities Investor Protection Fund” states, “All securities companies registered within China will pay into the fund at a rate of 0.5–5 % of operating revenue. Securities companies with poor management and operational proficiency or where risks are high will pay into the fund at a higher proportion. The specific proportion to be paid in by each securities company will be reported to the CSRC for approval after determining the risk profile of the securities company and adjusted on an annual basis.” Such a collection method helps to reduce the moral hazard of securities companies.

In addition, China has established other securities investor protection measures, such as a “securities exchange risk fund” established to ensure the normal operation of securities exchange activities, to remedy large economic losses of securities exchanges, and prevent of major risk incidents related to securities exchanges, as well as a “securities clearance risk fund” established to compensate for significant economic losses due to technical incidents, operational faults, and force majeure at securities registration and settlement companies and to prevent major risk incidents related to securities settlement business. These measures have to some extent protected the assets and confidence of small investors.

In order to implement the “Recommendations for Further Strengthening Work on Protecting the Legal Rights and Interests of Small Capital Market Investors” issued by the State Council on December 25, 2013, the China Listed Companies Association and China Securities Investor Protection Fund Company signed a Strategic Cooperation Framework Agreement on April 4, 2014. The two sides reached consensus on “pushing listed companies to strengthen investor relations management, improving investor protection consciousness and proficiency,

¹Source: “Baohu jijin gongsi 2013 nian 12 yue tongji yuebao [Protection Fund Company December 2013 Stastical Monthly Report].”

strengthening bilateral cooperation, and strengthening institutional guarantees.” The Listed Companies Association is devoted to improving the quality of listed companies, promoting and improving listed company corporate governance, pushing the establishment of positive corporate cultures, and convincing listed companies self-regulate.

As a specialized agency for protecting investors, the Investor Protection Fund Company has established investor complaints channels such as the 12386 hotline and fixed sample surveys database and has accumulated rich experience through multiple channels in safeguarding the legal rights and interests of investors, conducting investor surveys, and assessing the investor protection positions of listed companies. The agreement identifies six areas in which to move forward:

1. Strengthening study of investor relations management and investor protections, in particular strengthening cooperative research into the design of mechanisms to compensate investors whose rights have been violated by listed companies, and providing reference material for regulators to advance and improve relevant systems and institutions;
2. Launching cooperative investigations of listed company investor relations management, investor protection circumstances, and investor conditions and demands, and conducting in-depth analysis in order to provide recommendations to listed companies for improving investor relations management and investor protection work;
3. Reporting by the Listed Companies Association of the Investor Protection Fund Company’s annual assessment results to listed companies and pushing these companies to improve work in the necessary areas;
4. Joint training of listed companies in investor relations management and investor protection business, continuously guiding listed companies to pay ample attention to this work, and improving the level of investor relations management and investor protection at listed companies;
5. Promoting open and effective communication between investors and listed companies by building a platform, forming positive interaction;
6. Organizing selection of listed companies guided by investor assessment and nurturing a market culture with the legitimate rights and interests of investors at its core.²

10.1.2 Problems with Investor Protections

The overall level investor protections in China’s securities market is still low. MacNeil (2002) states that China’s poor protections for investors are the result of excessive concern among lawmakers about how to protect state control of listed

² Source: China Securities Investor Protection Website, “Implementing ‘Nine National Articles’ to Improve the Level of Investor Protection,” April 8, 2014.

companies. Allen et al. (2005) state that from a legislative point of view, China's level of investor protections is lower than a majority of other countries, and the level of law enforcement is significantly less than the average in other countries. Chen Donghua et al. (2008) and Xiao Min (2008) use empirical analysis to show that China is still a poor implementer of investor protections. Shen Yifeng et al. (2009) analyze the current state of investor protections in China and its problems from the perspectives of board authority, information disclosure, and the implementation of investor protections and use micro data to construct an investor protections implementation index. Their results show that Chinese investors have a weak understanding of shareholder rights and how to exercise them, there is weak enforcement of the law among regulatory agencies, and administrative measures are favored while legal norms are overlooked. There is no good coordination and matching between state regulation and market self-regulation.

Many scholars have discussed the inadequacies of China's protections for securities investors. Investors (such as Lu Guocong 2008; Li Siqi 2008; Zhang Long 2009) have most discussed issues with the design of the system design of the securities investor protection fund. These issues include:

1. A mandatory but not standardized membership system where clear laws have not been identified for the rights and obligations of brokerages after obtaining membership status;
2. Broad compensation terms—no clear legislation has been enacted for qualified customers, qualified members, strict compensation, and limited compensation when the creditors of companies whose license has been revoked, have closed, or have gone bankrupt, or are subject to mandatory regulatory measures such as administrative receivership or trusteeship management are added to the scope of investor protection fund compensation;
3. Lack of protection fund functions—the China Securities Investor Protection Fund Company has not been endowed with regulatory authority over the securities industry, nor have clear stipulations been made for the status and role of protection fund settlement procedures;
4. Irrational organizational model setup—the administrative job of directors does not reflect “democratizing” qualities;
5. Irrational allocation of costs of securities company failures—a securities company's own assets and operating assets are unequal, its own assets are far from sufficient to make up for losses caused by the company, and the fees for protection fund subrogation liquidation and complex liquidation procedures harm the interests of common creditors;
6. Weak protection fund company governance structure—there are no independent directors or supervisory committee to strengthen internal controls;
7. Protection fund compensation policy lacks standardization and continuity.

China has not yet formed a comprehensive legal system for protecting securities investors, nor have regulators formed clear regulatory thinking regarding the establishment of the Investor Protection Fund, and the China Securities Investor Protection Fund still lacks sufficient legal basis (He Dexu 2005). The regulatory

efficiency of Chinese securities regulators falls below the international average, and government efficiency indicators and legal efficiency indicators all lag behind the sample mean. Lagging corporate governance indicators also make for poor investor protections. Looking at the effects of punishments for Chinese securities market violations, regulators still lack the necessary supervision and restraint over irregular behaviors of listed companies, timeliness of discipline is poor, the educational role of securities law enforcement has not been brought into full play, and the deterrent effect of punishment is insufficient (Zhang Zongxin and Zhu Weihua 2007).

In accordance with current protection fund acquisition policy, investor securities transaction settlement funds will be fully acquired, and they are likely to choose high-risk brokers offering commission discounts and promising high interest rates. Current acquisition policy defines investor creditor's rights too broadly, with the funds individual investors lend to financial institutions, purchases of debt obligations issued by financial institutions, and trust wealth management products with promises of yields all falling under the scope of acquisition of individual debts. The linking of the amount paid into the fund with profits and equally covering all the brokerage firm's customers mismatches costs and benefits. These are all prone to moral hazard (Zhang Long 2009). Yao Yi et al. (2007) conduct an empirical study of the effects of institutional investor holdings on the protection of small investor interests in the process of China's equity division reform and find that in the share reform process, institutional investors have not protected the interests of small investors.

A theoretical study of the China Securities Investor Protection Company — “Zhongguo zhengquan touzizhe baohu jijin yunxing moshi yanjiu [Study of the China Securities Investor Protection Fund Operating Model]”³ analyzes the problems with protections for Chinese securities investors and their causes and finds the following. In terms of laws, regulations, and protective mechanisms, there is a lack of specific laws and specialized agencies for investor protections, and protection measures are limited. Infringers have insufficient knowledge of investor protections, and the costs of ignoring the interests of investors or violating regulations is too low. Investors lack a mentality of self-protection and are not vigorous enough in protecting their rights. Punishment for violating the rights of investors is mainly in the form of administrative penalties and criminal sanctions, with insufficient civil relief, limiting investor protection. The practice of protecting investors lags behind laws and regulations and policy advocacy. It is difficult for small investors to exercise and maintain their rights. Protections prior to or during an incident are ineffective, and there is only limited relief after an incident. There is a lack of effective oversight of institutional investors (particularly private equity funds), making these one of the main forces encroaching on the interests of other investors. When companies do wrong, the government foots the bill. Protection funds are not taken from the market and used on the market.

³ Source: China Securities Investor Protection Website, January 26, 2010.

10.2 Rebuilding the China Securities Investor Protection System

Given the importance of protections for securities investors and the problems China faces in its current implementation of this system, China must reconstruct the system of protections for securities investors. China should recognize that this system is not something that can be replaced by a single fund. Rather, it should be a multi-level system, including national authorities, securities institutions, social groups, and other organizations, and should include components of investor education, protection funds, corporate governance, and the legal system.

We will first introduce the components of securities investor protection systems in advanced, foreign companies (see Fig. 10.2) and draw lessons from these advanced experiences for the design of the reconstruction of China’s securities investor protection system.

This is a protection system touches on economic and social factors both internally and externally. Improving investor awareness and capabilities is the most reliable method of protection. The effective operation of market self-regulatory mechanisms is the fundamental measure. The improvement and effective enforcement of national administration, laws, and regulations is the strongest act of protection. The protection of social groups is the most effective remedy. On the foundation of the mature experience of foreign countries, we should rebuild China’s investor protections system while amply considering China’s national conditions.

Liu Shi’an, deputy general manager of the Shanghai Stock Exchange (2009) states that protecting stock market investors is a systematic project of great

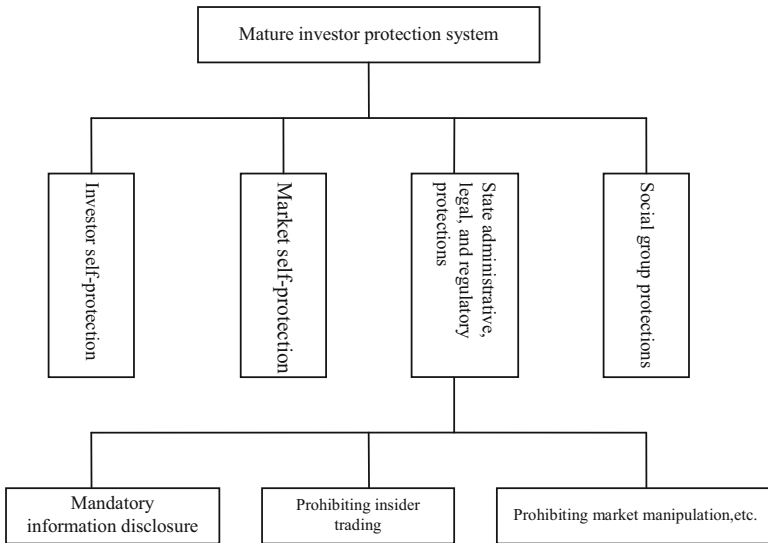


Fig. 10.2 Securities investor protection systems in mature market economies (Source: He Yuanqing 2008)

difficulty and of broad scope, requiring efforts on multiple levels—both the creation of an internal mechanism for the protection of securities market investors, but also the improvement of the external investor protection environment, including further improvement to the regulatory environment for financial innovation, strengthening of the self-regulatory environment for industry organizations, strengthening of the public opinion environment for societal supervision, and optimization of the legal environment for investor protections. In the following section, we study the reconstruction of the Chinese system of securities market investor protections from the perspective of the entities to be protected, facilities, and functions.

10.2.1 Construction of a System of Investor Self-protections

Formation of an Educational System for Securities Investors

The education of securities investors is an important means of achieving investor self-protection, the theoretical basis of which is asymmetric information theory and behavioral finance theory. Securities investors are at an informational disadvantage relative to the securities supply side, and investor education helps to improve the ability of investors to obtain information for themselves. Behavioral finance holds that investors have limited rationality, and that there is a significant amount of “herd mentality” and “noise trading” in the securities market. Investor education helps to improve investor rationality. Gu Haifeng and Xi Junyang (2009) show through the establishment and analysis of a theoretical model that an investor education mechanism can effectively control the irrationality problem of behavioral finance and play an important role in the healthy, stable, and sustainable development of financial and securities markets.

The International Organization of Securities Commissions (2002) proposes six principles of investor education work based on the investor education practices of various countries. First, investor education should help regulators protect investors. Second, investor education should not be viewed as a replacement for oversight of market participants. Third, there is no fixed model of investor education, which can come in many forms depending on the specific goals of regulators, the maturity of investors, and the resources available. Fourth, given the different levels of market experience and maturity of investment decisions among investors, a differentiated investor education program should be implemented. Fifth, investor education cannot and should not equate to investment advice. Sixth, investor education should be fair and not-for-profit and should avoid any significant connection to any product or service of any market participant. These components complement each other and are mutually indispensable.⁴

⁴ Source: China Securities Investor Protection Network Securities Education Work Summary, “Zhengquan touzizhe jiaoyu de guoji jingyan yu qushi zongshu.”

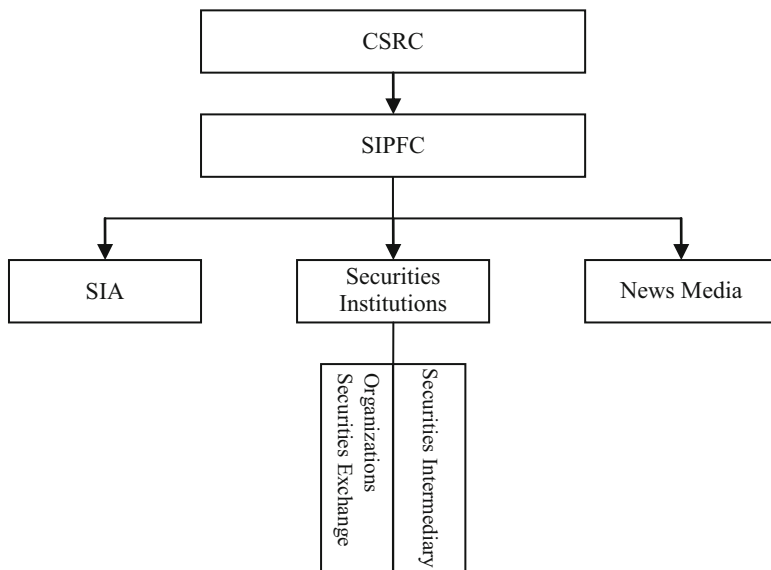


Fig. 10.3 Overview of China’s securities investor educational institutions (Source: Overview according to China securities investor protection network investor education work—Compiled, modified, and plotted from “Woguo touzizhe jiaoyu de fazhan gaikuang yu qushi [China’s Investor Education Situation and Trends].”)

China’s investor education began in 2000, initiated by the CSRC. Today, China has established a multi-level investor education system comprised of government departments, industry associations, securities institutions, and social organizations (see Fig. 10.3). Each level has its focus, and each complements the others.

The CSRC is the leading advocate and promoter of China’s security investor education mechanism. As the regulator for the securities industry, the CSRC has established an investor education system and coordinates, organizes, and oversees the investor education work of multiple levels of departments from the perspective of the healthy and stable development of the securities market and aiming to reach all investors.

The Securities Investor Protection Fund Company is the main enforcer of national investor protection policies. Its departmental interests are basically in line with those of investors. Through its dynamic role, the institution specifically carries out many educational functions of the CSRC, including preparing educational materials, building investor education websites, and starting educational columns and forums, as well as establishing corresponding feedback mechanisms.

As a self-regulating organization for the industry, the Securities Industry Association organizes, supervises, and urges its members to carry out investor education work by harnessing their advantages of being close to the market, being close to investors, having numerous points of access, and possessing numerous professionals and significant expertise to further the stable operation of the securities

industry. As those in direct contact with investors, various securities institutions (including securities exchanges and securities intermediaries)⁵ lay particular emphasis on developing the skills of investors by focusing on educating their own clients to further their own healthy and sustainable development. As an important social constraint, the news media should use its channels to effectively educate investors.

We must note that securities institutions have expertise in securities, but they also act in their own interest, and achieving envisioned investor education objectives is difficult. The news media may indeed act in the interest of investors, but because they lack securities industry expertise, they may not achieve the desired objective. The CSRC and Securities Investor Protection Fund Company have objective and rational educational goals as well as regulatory authority, but their resources are limited. They should play their investor education functions, as well as oversee and coordinate the investor education functions of various social elements to facilitate a rational investor education system.

Chinese scholars have put forward their own proposals for the Chinese investor education system. Gu Haifeng (2009) lays out the components of an investor education system from the perspectives of policy education, asset allocation education, and rights protection education. He states that investor rights protection education should include investor rights protection education based on the justice path, investor rights education based on the litigation path, and investor rights protection education based on the self-protection path. Zhang Yi (2010) proposes making up for insufficiencies in the traditional educational model through a third-party investor education model. Third-party education in this case refers to using existing teaching conditions such as formal education, vocational education, and elderly education to carry out propaganda and education activities for investment risk, methods, and concepts.

Evaluation Methods for Securities Investor Education Performance

In order to measure the performance of Chinese securities investor education and promote improvements to the level of education, China should establish a securities investor education level assessment system. Zhuang Xuemin (2009) uses incident methodology to study the effectiveness of China's government-led investor education and finds that China's government-led investor education activities are a "double-edged sword" of effectiveness—they can enhance the knowledge and skills of investors, as well as their confidence, but due to dependence on institutional channels, they can also harm investor interests. Therefore, China should

⁵ Including securities registration and settlement institutions, securities companies, investment consultancies, financial consulting agencies, credit rating agencies, asset assessment agencies, auditors, and other organizations mainly engaged in securities services.

establish an investor education assessment indicator system so that China's securities investor education is done properly.

Wang Wei et al. (2008) draw on the methods of Ye Zhongxing et al. (2004) to construct a Chinese investor education evaluation indicator system to assess the investor education process and educational results. The indicator system includes the three main categories of management indicators, communication indicators, and process content and results indicators, as well as a number of smaller indicator categories. They use Analytical Hierarchy Process (AHP) to assign different weights to various indicators. However, this theoretical system has not yet been put into practice. This should undoubtedly be the next priority in China's security investor education.

We believe that a dynamic investor education index system should be established in practice and calculate national, regional, and institutional investor education level indicators. Results should be released regularly to measure and assess the proficiency of China's investor education at all levels, promote the development of China's investor education system, and improve the abilities of investors to protect themselves.

10.2.2 Construction of a Self-protection System

If securities investors lack protections and confidence, securities institutions will lose clients, profits will be out of the question, and listed companies will lose a funding source. Therefore, in consideration of long-term interests, these institutions should enhance self-discipline overall to protect securities investors. At present, various organizations and groups educate different categories of investors through lectures, study manuals, consulting services, and online education.

Securities Exchange Governance

A securities exchange is a gathering place for the various elements of the securities market but also the area of most concentrated risk. Because of this, securities exchanges are relatively proficient at risk management. It should be said that the effectiveness of securities exchange risk management determines the level of protection for China's securities investors. Securities exchanges supervise and disclose securities transactions in real time and establish special exchange risk funds, both of which contribute to the implementation of securities investor protection. However, a prerequisite for securities exchanges to protect investors is that such activities do not harm the interests of institutions. In other words, only when the benefits of investor education outweigh the costs will the exchange participate. In order to resolve this issue, securities regulators should establish an effective monitoring mechanism, establish an incentive-compatible target mechanism, and guide securities exchanges to actively protect securities investors.

Securities Association of China Governance

The Securities Association of China (SAC) is an important component of the self-regulation of the securities industry and an indispensable complement to government regulation in that it can urge securities institutions to implement protections for securities investors. But the SAC is a trade organization for securities institutions, and its first consideration is the interests of securities institutions. In addition, it does not have statutory regulatory powers and has little ability to constrain securities institutions.

The establishment of an incentive-compatible goal mechanism should be first in the design of the protection function of the SAC, after which China can consider adding service functions on the foundation of its supervising and urging functions, providing support for the investor protection actions of securities institutions. These include the establishment of unified investor education for securities institutions, studying the correlation between investor protections and securities institution profits, and strengthening communication with investors.

Securities Company Governance

In terms of the legal relationship, investors and securities companies have neither an equity investment relationship nor a simple creditor-debtor relationship in a more general sense, and it is therefore difficult for investors to participate in the governance of securities companies. Investors risk losing their assets. For one, investor cash deposits and negotiable securities could be misappropriated. For another, securities companies may breach contracts and fail to fulfill their obligations under the asset trust agreement, thereby keeping the interest of investors from being effectively protected (Luan Guangxu and Fei Shujing 2006). Securities companies are the main intermediaries in the securities market, and the legality of their operations impacts the security of securities investor funds. Corporate governance structures meeting standards can be the internal cause effectively controlling securities company behavior, effectively preventing risks, and forming protections for investors. Therefore, when studying issues of securities investor protections, we should focus on the governance structures of securities companies. In addition, effective internal governance requires the restraint of external governance mechanisms. This requires the building of long-acting internal and external governance mechanisms at securities companies. In comparison to other companies, their special status and the risk they undertake place higher demands on oversight and information disclosure for securities companies in order to avoid harm to investor interests stemming from the pursuit of profit.

Governance of Other Securities Market Intermediaries

Securities market intermediaries are institutions primarily engaged in securities services. They are a bridge between fundraisers and investors and are in direct contact with securities investors. They have a certain impact on the behavior of investors, and their own actions significantly impact investor protections. Among them, securities registration and settlement institutions take direct custody of the assets of securities investors and have a key responsibility to protect investors. But there is a multitude of such organizations, the majority of which are small and without modern corporate governance structures. They have weak internal control capabilities, and supervising them is difficult. Investor protection should be carried out by emphasizing both supervision and guidance.

Governance of Listed Companies

Listed companies are the demanders of capital, while securities investors are the suppliers. In the primary market, they have a direct supply and demand relationship. On the secondary market, they have an indirect influence on each other. A better governance environment will produce a “corporate governance premium” among listed companies, thereby significantly reducing the cost of equity allocation reform. It can also significantly alleviate the occurrence of agency problems such as “conspiracy” between institutional investors and holders of non-circulating shares to violate the interests of small investors. Improving the governance environment plays an important role in protecting the interests of small investors (Xin Yu and Xu Liping 2007). China should establish good internal governance mechanisms for listed companies.

In the secondary market, listed companies may collude with securities brokers to dupe investors in order to maintain or even increase share prices, resulting in the loss of investor assets. Therefore, China should pay full attention to the role of external control institutions in listed company governance.

10.2.3 The Construction of National Departments and the Legal Protection System

China has established a securities investor protection system including the CSRC, Securities Investor Protection Fund, and various laws and regulations at the national level, and these all play a role in protecting securities investors within the scope of their mandates. These agencies and facilities should be constantly adjusted within the development of the Chinese financial system.

Managing the CSRC

At present, the CRSC's oversight of listed companies and securities firms is the most effective measure to protect securities investors. Ex ante regulation reduces the probability of these institutions engaging in illegal and risky business, which constitutes a fundamental safeguard for investors. Zhao Xiaochuan (2008) establishes a pure strategy game model of regulators and those being regulated and analyzes the reverse incentive effect of securities investor protections. He finds that because securities investor protection measures result in lower costs of violations, in reality they have an adverse incentive effect, and the effectiveness of violations among those being regulated is bound to increase. China should strengthen investor protections in the coming period in order to remedy the adverse incentive effect for regulators and reduce violations by those being regulated. It is necessary to increase penalties for violations and reduce the benefit of violations as well as expand penalties for regulators who do not fulfill their duties. In other words, while China further strengthens protections for securities investors, it should further strengthen regulation, increasing costs for violators. Meanwhile, it should also strengthen oversight of regulators. This is the only way to reduce the incidence of violations, protect the interests of investors, and promote the normal development of the securities market.

In addition to further improving the regulatory system of the department itself, the CSRC should also undertake responsibility for organizing and coordinating other protective facilities. The latter is often more important as it can mobilize all social forces to carry out securities investor protections. But this brings up another problem: other securities investor protection entities will face incentive incompatibility when implementing securities investor protections. These entities will often place their own department's interests first and consider protecting securities investors as a long-term goal. In such a case, the CSRC should educate and supervise these protection entities.

Managing the Securities Investor Protection Fund Company

The China Securities Investor Protection Fund Company is a wholly state-owned company, which operates independently in accordance with national laws and regulations. It is a market-oriented means of protecting securities investors. Thus, we handle it as a national agency for protecting securities investors. The establishment of the Securities Investor Protection Fund has reduced the "moral hazard" of the state fully paying individual debts in the disposal of securities market risks. The implementation of such explicit protections is conducive to the reform of China's financial system and has made China's securities market less policy dependent.

The establishment of the protection fund was slightly rushed, and it has been constantly adjusted since. Chinese scholars have made useful suggestions for its improvement. He Dexu (2005) states that China must fully consider the actual

situation of “share reform” in China’s securities market. When determining the subjects of compensation for the investor protection fund, localized innovation should be carried out so that holders of non-tradable shares are excluded from investment compensation. Specific compensation and proportions should combine the development level of China’s economy and financial markets, the average investment amount of individual investors, and the capabilities of the compensation fund and should be determined after detailed research and study by the relevant departments. But a prerequisite is that the Securities Investor Protection Fund bears only part of investor losses, not all. Zhang Long (2009) finds that China should further scientifically define compensation entities and objects of the protection fund. Institutional investors cannot completely be excluded from the protection fund. The scope of protected individual debt should be refined, and individual debt should be strictly defined as resulting from securities transactions. Loans from investors to securities companies should not be included in the scope of compensation funds. The seriousness, continuity, and forward-looking nature of investor compensation policy should be ensured. The costs of securities company operational losses should be rationally shared. Settlement fees can be given to the protection fund to undertake, but accountability should be sought from securities company shareholders and affiliates.

In terms of research into the governance structure for the Securities Investor Protection Fund Company, after an international comparison, Zhou Decai and Lu Xiaoyong (2009a, b) recommend that China Securities Investor Protection Fund Company compensation work can be given over to outside authority. They also recommend gradually increasing the number of outside and public representatives on the fund company board and gradually improving the fund company governance structure. They find that China’s current protection fund board is a typical official board model, but the ultimate goal is to adopt a mixed board model as in use in the U.S., Hong Kong, and other places in which board members are practitioners in the securities industry, as well as the public and government officials, and no category of directors holds an absolute majority.

In order to conduct market oversight, strengthen predictions, forecasts, and early warnings of market information and potential risk, and explore the establishment of a scientific securities market oversight early warning mechanism to protect the legal rights and interests of investors, the Protection Fund Company has compiled the Investor Confidence Index monthly since April 2008, and written the “Securities Investor Confidence Survey Special Report.” This is a very useful exploration. But the current problem is that with the exception of a few months in which the number of those surveyed exceeded 10,000, fewer than 10,000 were surveyed in other months. Moreover, those surveyed did so online of their own volition, and the Protection Fund Company has no way to assure their representativeness. The survey has a certain degree of blindness and passivity built in. Therefore, The Protection Fund Company should adopt a survey method of multiple measures and adopt rational methods to carry out a directional survey, making those surveyed more representative and the survey results more reflective of the actual state of investor confidence. In addition, the questions on the survey are relatively

one-sided and of a narrow scope and are not reflective of the situation of securities investor confidence. The Securities Investor Protection Fund Company should design questionnaire content that fully reflects reality on the basis of in depth study and a full investigation.

Improving the Securities Investor Protection Legal System

Looking at the situation in developed countries, securities markets are some of the most complex but central market mechanisms of the economic system. The effective functioning of securities markets relies on complex laws and related institutional arrangements. Within a securities market, the most central laws are those protecting investors. China already has laws for the protection of investors, such as the “Zhengquan fa [Securities Law],” “Zhengquan gongsi jiandu guanli tiaolie [Securities Company Supervision and Management Regulations],” and “Zhengquan touzizhe baohu jijin guanli banfa [Management Approaches for the Securities Investor Protection Fund].” He Dexu (2005) finds that China should learn from the legislative experiences of developed countries and actively create a localized securities investor protection system, actively promote legal system innovation, and consider formulating and introducing the “Zhengquan touzizhe baohu fa [Securities Investor Protection Law]” as quickly as possible. International securities investor fund legal systems include specific national laws for securities investor protection funds, provisions for securities investor protection funds within overall financial and securities law, government decrees, laws, and regulations, and targeted laws and regulations (Zhou Decai and Lu Xiaoyong 2009a, b). When constructing a securities investor protection legal system, China can draw lessons from some of this content, but the system should be coordinated with relevant Chinese laws such as “Xintuo fa [Trust Law],” “Pochan fa [Bankruptcy Law],” “Gongsi fa [Corporate Law],” and “Zhengquan fa [Securities Law].”

Xiao Min (2009) finds through empirical study that Chinese legislation to protect small and medium investors overall has the effect of lowering the cost of equity capital. However, with poor Chinese law enforcement conditions, the effect is quite limited. Only an investor protection legal system for small and medium investors integrating good laws and effective enforcement can truly play a role in reducing the cost of equity capital, thus adding to the value of listed companies, promoting the rational allocation of resources, and advancing the healthy development of the national economy. Xiao recommends enhancing the operability and enforcement of legislation, assigning legal responsibility, improving the quality of justice, improving the legal environment, and rationally defining the relationships between government and business, as well as between government and the law.

After the establishment of a sound investor protection legal system, China must consider its implementation and enforcement, the latter of which is more important. China should consider establishing dedicated investor protection law enforcement

agencies and could also establish dedicated securities investor protection law enforcement departments within existing legal institutions in order to ensure the effective implementation. An investor protection law is the most mandatory protection of the interests of investors and is therefore an essential measure. The Chinese government should be fully aware of this.

10.2.4 Construction of a Social Groups Protection System

Within existing investor protection agencies and groups, the CSRC is a national administrative department and the SAC and securities agencies are market self-regulating organizations. Only the news media may directly and effectively come into contact with securities investors in order to protect their rights and serve them. But there is no fundamental incentive for the media to perform such a service. China should learn from the legislative experiences of developed countries, actively establish localized securities investor protection systems, and unequivocally establish a Small Investors Protection Association (He Dexu 2005). The Protection Association would be comprised of small and medium investors themselves, and would directly represent the interests of investors, giving them a stronger voice in the handling of national risks and protecting their own interests. This would be the most effective securities investor protection social group. Chinese law should recognize the legitimacy of such a group, and the Chinese government should encourage and support its establishment, providing services when needed.

10.2.5 Building a Securities Investor Protection Performance Index System

In order to assess the performance of China's protections for securities investors and promote improvements to the level of protection, China must establish a performance assessment index system for securities investor protections. The establishment and announcement of this index will help the government and relevant departments to quickly comprehend the achievements of securities investor protections, and securities investors can see to what extent their rights and interests are being protected. This is a crucial element of an investor's ability to control risk.

At the "International Symposium on the Development and Improvement of the Chinese Securities Market Investor Protection System," China Securities Investor Protection Fund Company Chairman Chen Gongyan (2009) revealed that the Fund Company would monitor the risks of securities companies by assessing their investor protection. The Fund Company is currently designing a plan for an investor protection assessment indicator system, which is divided into two levels. The first

level is the design of indicators for several large areas including corporate governance, internal controls, information disclosure, customer asset management and account management, prohibited behavior, customer rights, and investor education and service at securities companies. Through the information related to securities companies collected from the investor survey center and investor call center set up under the Fund Company, the Fund Company can assess the investor protection capabilities and situations of each securities company. The second level is the creation of an investor protection index by further clarifying and improving these indicators, which will allow the Fund Company to assess the investor protection situation of the entire industry.

The China Securities Investor Protection Fund Company Discussion Group has studied the measurement and evaluation of Chinese securities investor protection behavior and released a report titled “Zhongguo zhengquan touzizhe baohu zhishu yanjiu [Chinese Securities Investor Protection Index].” The group uses the multiple-indicator comprehensive evaluation index statistical theory and technical methods to build a China securities investor protection indicator system and evaluation index, creating a tool by which to comprehensively and objectively evaluate the results of Chinese securities investor protections. It is of important reference value for the establishment and announcement of a securities investor protection index in China.

However, this is only a theoretical exploration. There is still content that can be added to the design of the indicator system. Synthesis of the various indicators has also not been achieved, so further study remains. However, we believe a pilot should be undertaken as soon as possible in order to accumulate practical experience. In actual operation, indicators should be divided by level and department when calculated. A normal indicator announcement mechanism should be established in order to supervise and urge relevant institutions to improve their level of investor protections. Classified indicators will help to discover problems. The indicator system will also be able to alert securities investors.

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Chapter 11

Institutional Construction (4)—Insurance Guarantee System

In order to ensure the security of financial assets and maintain the stability of the financial system, governments have established a variety of financial security networks to guard against risks to the financial system. Deposit insurance systems are used to protect the security of depositors; securities investor protection systems are used to protect the securities assets security of securities investors; and insurance guarantee systems are used to protect the insurance assets of policyholders. Insurance guarantee systems are systems established to respond to risks to the insurance industry and protect the interests of policyholders in which insurance guarantee funds are the main entities. Such a system involves national regulatory agencies, insurance institutions, insurance guarantee fund companies, and policyholders. It involves insurance, management, law, and many other disciplines and provides a guarantee of the healthy and sustainable development of the national insurance industry.

11.1 A Realistic Consideration of China's Insurance Security System

11.1.1 *The Risk Prevention Measures of China's Insurance Industry*

Insurance regulation is an important measure for China to prevent risks to the insurance industry, and China has formed a framework of three main regulators.¹ But regulation is a pre-incident risk control measure, and regulatory forbearance

¹ Including market behavior oversight, solvency management, and corporate governance oversight.

and regulatory loopholes mean it is impossible to completely avoid the outbreak of risks. Reinsurance is a risk sharing mechanism spontaneously formed by insurance institutions, which can reduce the risk and responsibility of the institution, but can do little to resolve systemic risks and therefore can do little to stabilize the confidence of policyholders. Under the auspices of the China Insurance Regulatory Commission (CIRC), China has built five lines of defense against risks,² of which the Insurance Security Fund is one important part.

China began the establishment of its insurance system with the promulgation of “Baoxian baozhang jijin guanli banfa [Management Approaches for the Insurance Security Fund]” on December 30, 2004. The document ensured that the interests of policyholders would not be significantly harmed due to an insurance company’s bankruptcy or revocation of license. It also guaranteed insurance companies could make smooth exists from the market, maintaining financial stability and public confidence in the insurance industry. This was China’s first attempt to establish a market-based mechanism for the self-disposal of risk in the Chinese financial industry. On September 11, 2008, the CIRC, Ministry of Finance, and People’s Bank of China jointly promulgated the new “Baoxian baozhang jijin guanli banfa [Management Approaches for the Insurance Security Fund]” (hereafter referred to as the “New Approaches”), which revised the original document. The New Approaches stipulated that the Insurance Security Fund be paid into and established in accordance with the “Zhonghua renmin gongheguo baoxian fa [Insurance Law of the People’s Republic of China]” and that it be a non-governmental industry risk relief fund used to relieve policyholders or policy transferee companies or dispose of insurance industry risks. The New Approaches stipulate that the principle of the Insurance Security Fund exists to protect the interests of policyholders and maintain the steady operation of the insurance industry. It is centrally managed and used in accordance with the overall plan. In order to carry out market-based management of the Insurance Security Fund, the New Approaches put forward the establishment of a state-owned, independent China Insurance Security Fund Limited Liability Company (hereafter referred to as the Insurance Security Fund Company), which according to the law is responsible for raising funds, managing, and putting the Insurance Security Fund to use.

11.1.2 China Insurance Security Fund Management Methods

When China revised the “Baoxian baozhang jijin guanli banfa” [Management Approaches for the Insurance Security Fund] in September 2008, it also established the Insurance Security Fund Company and implemented market-based management of the fund.

In accordance with the relevant regulations, the Insurance Security Fund Company has established a board of directors, made up of nine board members from the CIRC, Ministry of Finance, People’s Bank of China, State Administration of

²Including corporate governance, solvency management, on-site inspections, use-of-funds management, and the Insurance Security Fund.

Taxation, State Council Legislative Affairs Office, and three insurance companies. Together, these members form a market-based management mechanism for the Insurance Security Fund, making it a true market-based risk relief mechanism.

The Insurance Security Fund transforms implicit state credit into industry credit, strengthens industry self-restraint, and reduces reliance on government finances. The Insurance Security Fund Company legally engages in the following businesses: (1) Raises funds for, manages and operates the Insurance Security Fund. (2) Monitors insurance industry risks. When it is discovered that insurance company operations and management may pose significant risks to policyholders and the insurance industry, the Insurance Security Fund Company submits a recommendation to the CIRC. (3) Provides relief to policyholders, policy transferee companies, and other individuals and agencies and participates in risk disposal in the insurance industry. (4) Participates in liquidation work when an insurance company has had its license revoked or has gone through bankruptcy proceedings. (5) Manages and disposes of repayment assets. (6) Engages in other business approved by the State Council.³

The CIRC, Ministry of Finance, and People's Bank of China have the responsibility and authority to oversee the Insurance Security Company. The Insurance Security Fund Company must submit a monthly report to the CIRC, Ministry of Finance, and People's Bank of China regarding fundraising, operations, and use of funds. It must also submit an audited annual financial report to the CIRC, Ministry of Finance, and People's Bank of China. The use of Insurance Security Fund funds in violation of laws, administrative regulations, or management approaches by directors, senior management, or other staff, or the acquisition of Insurance Security Fund funds through embezzlement, theft, fraud, or other illegal means constitutes a crime, and perpetrators will be held criminally responsible.

The Insurance Security Fund Company and the CIRC have established an insurance company information sharing mechanism. The CIRC regularly reports financial, business, and other operating and management information to the Insurance Security Fund Company. The CIRC also provides financial, business, and other special data and information on companies determined to have potential risks to the Insurance Security Fund Company.

Most countries divide insurance security funds into property and life insurance classes, setting up life insurance security funds and property insurance security funds. Those countries establishing only one fund will establish separate fund accounts for life insurance and non-life insurance. This is due to the different nature of property insurance and life insurance. The former usually has a term of 1 year, while the latter is of a long duration. The independent operation of the two funds helps to prevent overlapping compensation (Jiang et al. 2008). China has also established a property insurance security fund and a life insurance security fund. The property insurance security fund is comprised of payments from property

³ Source: "Baoxian baozhang jijin guanli banfa [Management Approaches for the Insurance Security Fund]."

insurance companies, while the life insurance security fund is formed from payments from life insurance companies.

In accordance with the provisions of the “Management Approaches for Insurance Security Funds,” the sources of the China Insurance Security Fund are: (1) insurance protection funds paid by insurance companies in China in accordance with the law; (2) compensation income legally obtained by the insurance protection fund company from the liquidation of bankrupt insurance companies; (3) donations; (4) investment returns from the aforementioned funding sources; (5) other legitimate income. The management approaches also make detailed stipulations for the amount of compensation for property insurance and life insurance. When the insurance security fund reaches a certain size, insurance companies may suspend payments into it.

The use of insurance security funds is limited to bank deposits, the purchase and sale of government bonds, central bank bills, corporate bonds for centrally administered state-owned enterprises, and financial bonds issued by financial institutions at the central level, as well as other uses of funds approved by the State Council. The management approaches stipulate that insurance security funds can be drawn upon only in cases where an insurance company has had its license revoked or has gone through bankruptcy proceedings and its liquidated assets are insufficient to pay policy benefits, or in cases where the CIRC has determined an insurance company poses major risks and may endanger the public interest and financial stability. When funds need to be drawn upon, the CIRC formulates a risk management program and use practices. After deliberation by the departments concerned, the plan is submitted to the State Council for approval.

“Management Approaches for Insurance Security Funds” provides for different insurance security fund payment rates for different classes of insurance, as well as insurance business outside of the scope of protection: (1) an insurance company’s overseas direct insurance business; (2) an insurance company’s inward reinsurance business; (3) policy-type insurance business where the State Council has determined that the national financial administration will ultimately bear the risk; (4) corporate annuity management business in which an insurance company engages, such as corporate annuity trustee and account management; (5) other businesses that the CIRC and other departments have jointly determined to be outside the scope of relief from the insurance protection fund; (6) policy benefits held by the board and high-level management and property loss insurance policy benefits held by shareholders of an insurance company whose license has been revoked or which has gone through bankruptcy in accordance with the law and where the board, senior management, or shareholders have broken the law or relevant national regulations and are thereby directly responsible for the revocation of license or bankruptcy.

11.1.3 Problems Faced

After the financial crisis, the central bank set the benchmark deposit rate at 2.52 %, approaching the predetermined life insurance policy interest rate cap of 2.5 %. New policies face a choice between downward predetermined interest rates and upward policy prices. This will undoubtedly reduce the demand for insurance policies. Faced with the pressure of market competition, in order to maintain the appeal of products, insurance companies do not necessarily want to reduce insurance policy lower limit interest rates at the same pace. In addition, losses to income from capital market investments during the crisis, and lower interest rates exacerbated these losses. These all create rate spread loss risk and pressure for the insurance industry in the new situation.

Spread loss has increased risk for policyholders, and policyholders are unconvinced that the insurance security fund alone can protect them. Hence, an incentive-compatible insurance security fund system must be established to further improve the means by which insurance security funds are raised, compensation for policyholders, the operations of the insurance fund, and the early warning and remedy mechanisms of insurance institutions. By enhancing constraints on risky behaviors, their impact on the insurance security fund will be lessened, better protecting the interests of policyholders (Zhang Ningjing 2007).

11.2 Optimizing China's Current Insurance Security System

To deepen reform of the insurance security fund system, accelerate progress in specialization and urbanization, and integrate relevant international experience, Jiang et al. (2008) propose: (1) further improving the governance structure of the fund management company, increasing the involvement of member insurance companies and professionals in society in the decision-making and management of the fund, and achieving independent and professional operation of the fund; (2) clarifying the functions of the fund, improving and refining the rules of use for the fund, and allowing the fund to conscientiously play its role in protecting the interests of policyholders; (3) introducing an effective monitoring mechanism while guarding against moral risk so that policyholders, insurance companies, and government oversight departments can all play important roles in the operations of the fund. They create an optimization proposal from the perspective of the insurance security fund.

China's current insurance security system originates from the insurance security fund, and management of the fund is currently the main means and tool. But an insurance security fund alone without accompanying mechanisms, and an insurance security fund that performs only a single function of payment, will be ineffective in preventing systemic risk. Therefore, China should establish a systemic insurance

security system, endow the insurance security fund company with more authority to oversee and manage insurance institutions and participate in the exit of insurance institutions from the market, and establish relevant supporting mechanisms.

11.2.1 Design of the Insurance Security Fund System

The Insurance Security Fund is the core element of the insurance security system and the foundation by which to provide a guarantee to policyholders. We must first make an optimal design for this system.

Insurance Security Fund Management Institutions

Looking at practical experience, the CIRC initially managed the China Insurance Security Fund, bringing with it strong administrative qualities. In 2008, China established a special Insurance Security Fund Company to manage the insurance security fund according to market principles. This made the management of the fund more refined and professional, but also resulted in some principal-agent problems. This requires the coordination of restraint mechanisms when designing the system, such as improvements to the governance mechanism of the Insurance Security Fund Company and a stronger oversight mechanism for the Insurance Security Fund Company.

Insurance Security Fund Management Methods

Fundraising methods. Like deposit insurance funds and securities investor protection funds, fundraising methods for the Insurance Security Fund include pre-incident, post-incident, and hybrid methods. Pre-incident collection means insurance companies make regular contributions during ordinary times when there is no repayment crisis. These funds are then used for compensation in times of crisis. Post-incident collection refers to the Insurance Security Fund demanding contributions from insurance companies after a repayment crisis by looking at actual need. Hybrid collection refers to a combination of pre- and post-incident collection. When pre-incident collection is insufficient to cope with a crisis, member insurance companies supplement any shortfalls required by the situation.

Pre-incident collection is the commonly employed method. It is conducive to quickly and sufficiently compensating policyholders, thereby securing policyholder confidence in the insurance market. But it is also prone to moral hazard. While post-incident collection reduces the membership fee burden of insurance companies, it creates a passive situation for compensation work after a crisis.

Regardless of which method is employed, all require that insurance security fund rates be set, mainly through the two methods of leveled rates and risk rates.

Levelized rates are the collection of a uniform rate based on the size of the insurance premium. Han et al (1997) find that when facing risk, a post-incident levelized fee system is more vulnerable than a pre-incident levelized fee system because there is a negative correlation between expected insurance company value and the probability of bankruptcy. The moral hazard issue of the pre-incident pricing method cannot be resolved. In the post-incident pricing method, the party benefiting from high-risk activities bears more of the cost (Lee and Smith 1999).

Risk-based rates mean collecting different fee rates for insurance companies and insurance products of different levels of risk. Levelized rates are easy to operate, but they can easily lead to moral hazard. Risk-based rates help to reduce moral hazard, but given informational and technical constraints, they are difficult to implement. Risk-based rates are the direction and focus of various governments and academic research. Looking at the current situation, the methods of determining risk-based rates are the bankruptcy method, the option model method, and the risk level classification method (We Haigang 2007). The bankruptcy method involves using specific formulas to analyze each insurance company and calculate the losses its bankruptcy would bring to the insurance security fund, and then collect corresponding payments from the insurance companies according to the expected losses. The option model method assesses the similarity between the insurance security fund and options and uses the option-pricing model to determine the fee rate. The risk level classification method involves classifying insurance companies based on their risk characteristics and developing different rates for different classes.

China currently uses levelized rates. This was reasonable at the time of the establishment of China's insurance security system as it ensured the balanced start of the system. But in order to resolve the moral hazard issue of this system, China should study and adopt risk-based rates at the proper time. Considering operability and technical support, China could use risk level classification. Jiang Xianxue (2009) uses the risk level classification method to make an empirical simulation of risk-based rates for the China Insurance Security Fund. He uses factor analysis to draw out the main factors within the indicators reflecting the risk situations of life insurance and property insurance companies and calculates a score for each company for these major factors and ranks them. Based on this, he classifies the insurance companies based on their level of risk, and then simulates an insurance protection fund that collects payments using risk-based rates. His results show that as long as the model can react to risks in the Chinese insurance market, an insurance security fund levying risk-based fees collects a smaller amount than one levying fees based on a single proportion, while still protecting the normal operation of the insurance market, meaning a reduced burden on insurance companies. In addition, determining risk classes reduces the cost of measuring the risk of each insurance company. Therefore, the risk level classification method is the more suitable risk pricing method. At the appropriate time, China should upgrade its levelized rate system to a risk level classification system. Risk classification can combine the insurance company's probability of bankruptcy, risk exposure (i.e. total insurance compensation), and level of oversight.

Insurance Security Fund Payers The guarantee of the insurance security fund reduces the cost of engaging in risky activities for insurance companies. Thus, companies with large risk appetites are willing to join the insurance security fund system, while those with healthy operations are unwilling to bear the cost of the fund's fees and are unwilling to share the risk brought by other companies. The problem of adverse selection thus easily arises; that is, only companies with appetites for risk are left within the insurance fund system. At present, this is the approach China adopts. But in actual operation, the fund should implement different management methods for different targets.

On the basis of work by Saunders et al. (1990), Downs and Sommer (1999) use data from 55 insurance companies from 1989 to 1995 to build a model to study the effects of an insurance security system on the risky behaviors of insurance companies. The model is as follows:

$$Risk_{it} = \alpha_0 + \alpha_1 Inside_{it} + \alpha_2 Size_{it} + \alpha_3 Capital_{it} + \sum_{t=2}^7 \gamma_t DumYr_t + \varepsilon_{it},$$

$$i = 1, 2, \dots, 55, \quad t = 1, 2, \dots, 7;$$

where in $Risk_{it}$ represents the risk level of the insurance company number i in year t , $Inside_{it}$ represents the shareholdings of insiders at insurance company i in year t , $Size_{it}$ represents the size of insurance company i in year t , $Capital_{it}$ represents the capitalization level of insurance company i in year t , $DumYr_t$ represents year t 's dummy variable, and ε_{it} represents the error term. They employ a single-factor model to conduct an empirical study and find that there is a notable positive correlation between insider shareholdings and overall risk, and that overall risk is negatively correlated with company size and capitalization level.

Their model and results have significance for the Chinese insurance security system. For example, companies where insiders hold a high proportion of the shares are likely to increase overall risk, and the insurance security fund should collect higher fees or implement stricter oversight of these companies. For large companies and companies with high levels of capitalization, the insurance security fund can collect lower fees or relax oversight to reduce costs. Of course, we must also conduct an in-depth analysis of the factors related to overall risk in the Chinese insurance system to determine the effects of the main variables on overall risk in order to carry out differentiated management of those paying into the fund.

Scope of Insurance Security Fund Coverage Downs and Sommer (1999) explain that the incomplete guarantees of insurance security funds give the insurance industry and consumers strong incentive for oversight. Thus, it is rational for China to employ an incomplete guarantee as it does. But the limit and scope of guarantee should not be static. China should establish a stage-type dynamic monitoring system for insurance system risk and formulate specific guarantee limits and scopes in stages, i.e. establish a dynamic adjustment mechanism for the limit and scope of guarantee. In high-risk situations, increasing the guarantee limit and

expanding the scope of guarantee would better manage risk. During times of low risk, a low guarantee limit and narrow scope of guarantee will lower the cost of the insurance security fund.

11.2.2 Design of Insurance Security Fund Regulatory Functions

Bohn and Hall (1995) find that guarantee funds can pay claims quickly, but only at a high cost. Thus, corresponding measures must be employed to reduce costs without reducing the effectiveness of the guarantee. The Insurance Security Fund Company is the management agency for the Insurance Security Fund, and it should play a major role in this process. If it is only a “teller window” for compensation, the Insurance Security Fund Company will be unable to achieve this goal. Thus, the Insurance Security Fund Company should have other supporting functions. Among these, regulatory functions are the most important pre-incident measure. But it is worth noting that the regulatory functions of the Insurance Security Fund Company and those of the CIRC are different, and their regulatory content should be different as well. The regulatory functions of the two bodies should supplement and complement each other. For example, the CIRC should place more focus on macro-regulation, while the Insurance Security Fund Company should pay more attention to micro-regulation.

We already know that the existence of the Insurance Security Fund will influence the choice of market organizational structure for insurance companies. Insurance companies may be more inclined to establish different specialized insurance companies under an insurance group, with each specialized company having its own accounting system. This places higher requirements on insurance oversight. In such a case, the Insurance Security Fund Company can set up different oversight methods and regulatory content for different types of insurance and different specialized companies and report to the CIRC on its oversight work. Central University of Finance College of Insurance Dean Hao Yansu points out that insurance “spread loss” risk arises from a number of factors including unclear operating strategies of insurance companies, irrational product structures, and mismatches between assets and liabilities, resulting in capital gains that are lower than the average predetermined rate of life insurance policies, thereby threatening the solvency of the insurance industry.⁴ Therefore, these issues can become the main content when the Insurance Security Fund Company carries out micro-oversight.

⁴Source: China Insurance and Wealth Network, <http://www.bxlw.com/html/200812/3/20081203163611.htm>.

11.2.3 Designing a Market Exit Mechanism for Insurance Institutions

The Insurance Security Fund was initially an institutional arrangement associated with the exit of insurance institutions from the market. After their exit, the Insurance Security Fund Company would carry out their compensation functions on their behalf. But insurance products are very different from bank deposits and securities in that they involve probabilities and are strongly heterogeneous. Due to probability, the amount of money the Insurance Security Fund Company will directly pay out is limited in that it must only compensate for losses that have actually occurred. After an insurance institution exits from the market, policyholders may prefer to continue the insurance function. The most direct method for maintaining this continuity is to provide assistance to the problem insurance company and enable it to recover its operating capacity. If the cost of assistance is too high, or the impact of the insurance company's problems is too large, market exit can then be considered. At this time, the Insurance Security Fund Company must match these insurance products with corresponding insurance companies and convince these companies to undertake these insurance products. In order to accomplish this function, the Insurance Security Fund Company should compensate the receiving insurance companies and exert a certain degree of force on them. In addition, the Insurance Security Fund Company should consider the interests of those policyholders not looking to maintain continuity and sign credit transfer agreements with them.

11.2.4 Plan for Regulating the Insurance Security Fund Company

As a specialized agency, the Insurance Security Fund Company has its own interests, and a principal-agent problem is likely to surface. Solving this problem requires strengthening oversight of the Insurance Security Fund Company and fostering a sound corporate governance structure.

Strengthening Oversight of the Insurance Security Fund Company

“Management Approaches for the Insurance Security Fund” stipulates that the CIRC will oversee the business of the Insurance Security Fund Company and the fundraising, management, and operations of the Insurance Security Fund. The Ministry of Finance is responsible for managing and conducting financial oversight of the state-owned assets of the Insurance Security Fund Company. The Insurance Security Fund Company board formulates the budget and final account plan for the fund company and submits them to the Ministry of Finance for final approval. The

Management Approaches also stipulate that the Insurance Security Fund Company will regularly report information to the CIRC, Ministry of Finance, People's Bank of China, and Insurance Companies. In addition, the Insurance Security Fund Company must report operating conditions and capital operations to the public and accept a wider range of market oversight. Simultaneously carrying out administrative oversight and market oversight helps to reduce the principal-agent problem.

Improving the Insurance Security Fund Company Governance Structure

In addition to the aforementioned external governance mechanisms, internal governance mechanisms should be established for the fund company. While the China Insurance Security Fund Company was established by state funding alone, it is still a corporate enterprise, and an appropriate corporate governance structure should be established. The fund company should also establish a "separation of powers" between decision-making power, management authority, and supervisory authority. Due to the fund company's particular characteristics, decision-making power rests with the state, management authority rests with the board of directors, and supervisory authority rests with the board of supervisors.

Administrative officials hold the majority of China Insurance Security Fund Company board of directors positions, which is conducive to maintaining the absolute leadership of the government, but makes it difficult for the company to protect its own interests. At the appropriate time, China should increase the number of seats on the board, and regularly rotate board members. No board of supervisors has been established for the fund company, which is detrimental to the self-oversight. A board of supervisors should be established, as well as corresponding internal control mechanisms. When managing the fund, the fund company should seek to maximize fund returns with a certain level of risk and accumulate a sufficient amount of funds to reduce the burden on insurance companies. The China Insurance Protection Fund's management should achieve professionalism and specialization as quickly as possible in order to respond to requirements to constantly improve and optimize.

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