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## **The chinese financial system at the Dawn of the 21st century: An Overview**

Yulu, Chen and Yong, Ma and Ke, Tang

Chinese International Finance Society and Beijing Foreign Studies  
University, China Financial Policy Research Center, Renmin  
University of China, Hanqing Advanced Institute of Economics and  
Finance and School of Finance, Renmin University of China

July 2011

Online at <https://mpra.ub.uni-muenchen.de/36027/>

MPRA Paper No. 36027, posted 18 Jan 2012 16:52 UTC

# The Chinese Financial System at the Dawn of the 21st Century:

**Yulu Chen, Yong Ma and Ke Tang**

► RECEIVED: 16 FEBRUARY 2010

► ACCEPTED: 23 MARCH 2011

Based on a systematic review and summarization of China's 30 years of financial reform and development, this paper comprehensively analyzes the past, present and future development of China's financial system and also presents the mechanism for China's financial development from the view of political economics. Generally, the Chinese financial system is bank-oriented. The property rights structure, led by state-owned banks, is the prominent feature of the Chinese banking system. Equity, bond, money, currency and real estate markets have been developing rapidly; however, the development rate of these markets varies, and institutional construction generally falls behind the market development. China's financial decision-making authority belongs to the State Council, and the financial supervision system adopts the mode of "separate regulation." China's state-driven, progressive financial reforms have promoted the formation of the government-led financial structure, which is composed of three parts: first, monetary policy, balancing both inflation control and economic growth; second, bank credit expansion under the implicit guarantee of the state; and third, the adjustable pegged exchange rate system based on capital controls. The next phase of financial reform in China will mainly focus on the following four key goals: first, to further improve the corporate governance and the mixed operation of financial institutions; second, to construct the institution of a financial market system and improve the effectiveness of the financial markets; third, to re-integrate regulatory resources, combine macro- and micro-prudent views, and establish a comprehensive framework for financial stability; fourth, to promote the liberalization of interest rates, marketization of the exchange rate and the opening of capital accounts based on a progressive approach and to improve the openness of the financial system based on macroeconomic stability.

China, Financial System, Bank-oriented, Political Economics.

O5, K0, G2.

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Yulu Chen ✉ *Chinese International Finance Society and Beijing Foreign Studies University*

Yong Ma *China Financial Policy Research Center, Renmin University of China*

Ke Tang *Hanqing Advanced Institute of Economics and Finance and School of Finance, Renmin University of China*

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Since the policies of reform and opening began in 1978, China's economic development has made remarkable achievements. During the past 30 years, the average GDP growth rate reached nearly 10% per year. By the end of 2009, China's total nominal GDP had reached 4.91 trillion U.S. dollars, trailing only the U.S. and Japan and accounting for 8% of the total global economy. At the current rate of development, China's total GDP in 2010 is expected to reach 5.5 trillion U.S. dollars, which exceeds Japan's 5.19 trillion U.S. dollars in the same period. Hence, China will become the world's second largest economy. The sustained high growth of China's economy since 1978 is known as the "China miracle". It has attracted the interest of a growing number of economists around the world. Friedman once said, "The one who can explain China's economic reform and development will get the Nobel prize in Economics".

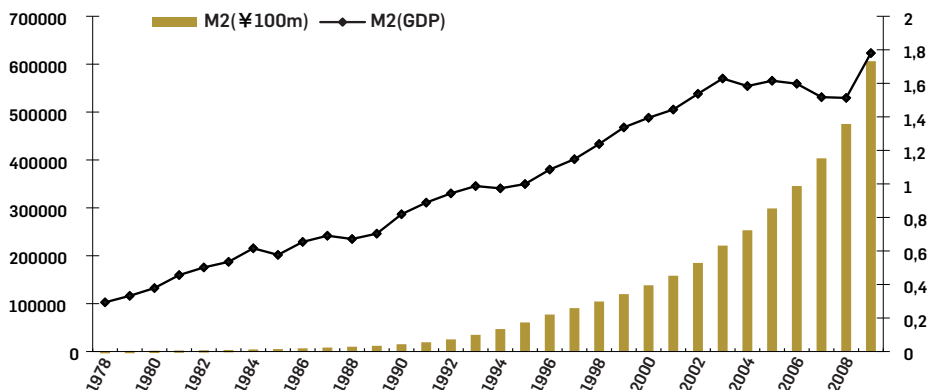
With more and more discussions of the "China model" in economic development, financial reform and development issues in the Chinese economy have also attracted much attention. Particularly against the backdrop of the global financial crisis, China's financial stability has again caught the world's attention. Based on a systematic review and summarization of China's 30 years of financial reform and development, this paper comprehensively analyzes the past, present and future development of China's financial system and interprets China's financial development from the perspective of political economics. The remainder of this paper is organized as follows. Section 2 describes the general development environment in China's financial system. Section 3 analyzes China's financial system from several aspects, such as history, structure and market development. Section 4 briefly introduces China's financial decision making and supervision system. Section 5 summarizes China's financial development from a political economy perspective. Section 6 concludes.

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### 2.1. High-speed Monetization Process

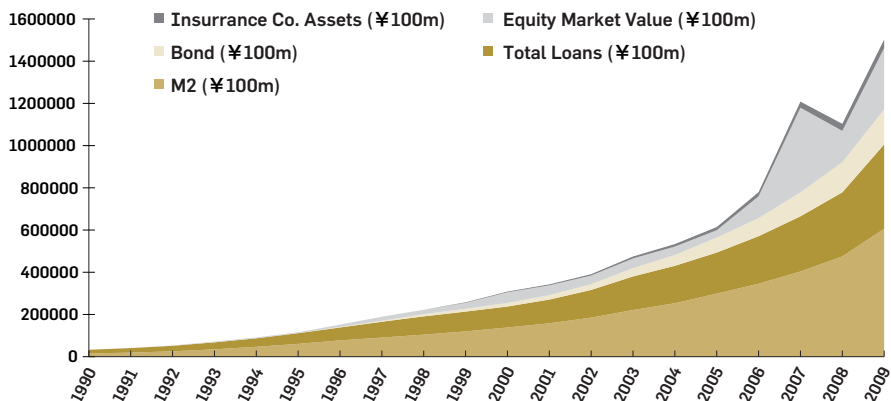
As a large open market country, China's financial industry grows rapidly under highly sustained economic growth. From the perspective of the degree of monetization, China's broad money supply (M2) has continued to rise since the launch of the "reform and opening" policy, from 107 billion RMB in 1978 to 60.6625 trillion RMB at the end of 2009, a nearly 567-fold increase over three decades. At the same time, China's monetization rate (M2/GDP) has also risen, reaching 1.78 by the end of 2009, the highest in the world (Figure 1). The phenomenon that monetization continues to rise and remains at an unusually high level is known in economics as "China's high monetization mystery."

## The Monetization Process in China: 1978-2009



SOURCES: CHINA STATISTICAL YEARBOOK; PEOPLE'S BANK OF CHINA QUARTERLY STATISTICS; WIND INFO

## Composition of China's financial assets: 1990-2009



SOURCES: CHINA STATISTICAL YEARBOOK; PEOPLE'S BANK OF CHINA QUARTERLY STATISTICS; WIND INFO

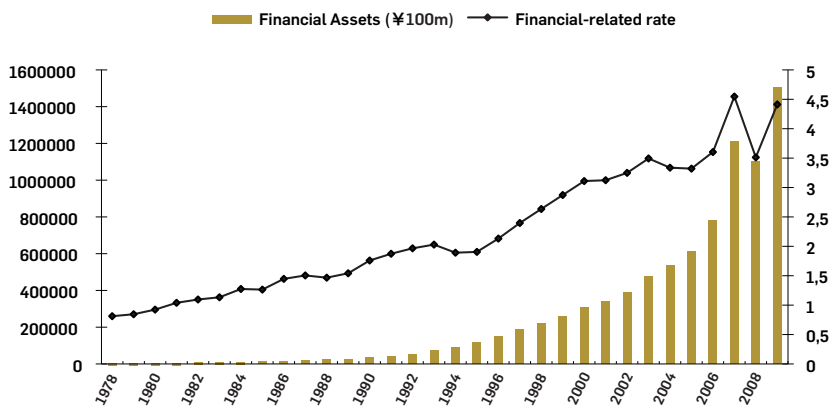
The key to understanding China's high monetization rate is to bridge China's financial development to the framework of China's special social and economic background and structure of the bank-oriented financial system. On the one hand, with the fast-growing economy and relatively narrow investment channels, Chinese residents have few opportunities to invest. Furthermore, the social security system is not well organized, and Chinese residents are "forced to save." This in turn results in a high M2/GDP rate because savings are all invested into the banking system. On the other hand, for a long time, due to the "dual structure" of finance and economy and the unclear relationship among the government, financial sectors and financial enterprises, a large share of savings are used to support the development of an inefficient state-owned economy. This leads to a continued high monetization rate and financial interrelations ratio (FIR), which are both driven by the increase

of M2 and credits. Actually, Figure 2 also shows that the increase of China's FIR is mainly supported by increasing growth of M2 and loans; that is, China's financial growth is, in fact, caused by the state-owned enterprises borrowing from banks.

## 2.2 Rapid Expansion of Total Financial Assets

Together with rapid monetization, China's total financial assets have also been rapidly growing. If we use the summation of M2, total bank loans and securities (including the aggregate value of stocks, bonds and total insurance company assets) as a substitute for total financial assets, China's total financial assets grew from 290.6 billion to 150.250 trillion RMB from 1978 to 2009, a 508-fold increase. As a representative indicator of financialization, China's FIR has also increased in the same period. The FIR was only 0.81 in 1978; it rose to 4.41 in 2009 (Figure 3).

**China's financial interrelations ratio (FIR): 1978-2009**



Note: According to different calculation of the financial assets, different studies have quite different results. In this paper, we use GDP as a substitutive variable of general physical assets, and the sum of M2, total bank loans and securities as a substitutive variable of total financial assets. So in this paper,  $FIR = (M2 + L + S) / GDP$ , where securities (S) include aggregate value of stocks, bonds and total insurance companies assets.

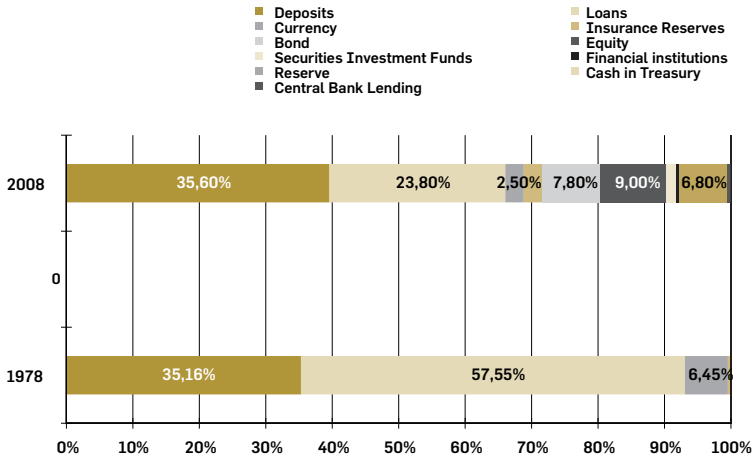
SOURCES: CHINA STATISTICAL YEARBOOK; PEOPLE'S BANK OF CHINA QUARTERLY STATISTICS; WIND INFO

## 2.3 Diversified Structure of Financial Assets

Since the launch of the reform and opening policy, China's financial assets have developed from the single bank asset to diversified assets, with more and more financial instruments appearing in China. For example, bonds, stocks, mutual funds and insurance products have accounted for a large share of financial assets. With access to the WTO, China will further expand its economic and financial opening to the outside world. To meet the development needs of marketization and globalization, China's financial reforms and innovations have accelerated noticeably, with more new financial instruments, plentiful financial products, new investment channels and a variety of hedging instruments. Figure 4 shows that, from 1978 to 2008,

after 30 years of development, China's financial asset structure has shown a significant trend toward diversification, with abundant species and a balanced structure.

### The change of China's financial asset structure: 1978 vs. 2008



SOURCE: PEOPLE'S BANK OF CHINA

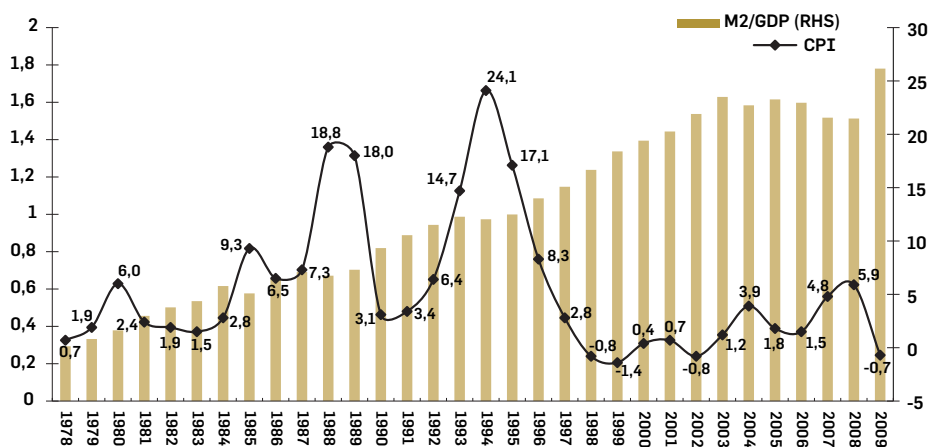
## 2.4 China's Financial Development and Economic Growth: A Preliminary Assessment

Recent research has confirmed that financial development can improve economic growth (Pagano, 1993; King and Levine, 1993; Rajan and Zingales, 1998; the World Bank, 2001). Pagano (1993) concludes that financial development can increase the ratio of savings to investment, improve the social marginal productivity of capital, affect the private savings rate and thus influence economic development. When considering the importance of finance to China's economic growth, World Bank reports (1996, 1997) indicate that increasing seigniorage along with monetization has reduced inflation pressure, achieved relative financial stability, maintained high subsidies from national savings to inefficient state-owned enterprises and thus promoted an institutional transition and economic growth.

It is important to note that during China's financial development, although the M2/GDP rate rose for a long time, it did not cause serious inflation (Figure 5). McKinnon (1993) first noticed the phenomenon that high M2/GDP and low inflation coexisted in China and called it the "Chinese mystery." Theorists have different interpretations about this, but we believe that the root of the problem is China's unique financial structure and special financial systems during the transition. Under the state-led economic model, the state provides an implicit guarantee of bank deposits and expands credit through national mobilization of savings. It provides a lot

of cheap credit and stimulates the expansion of domestic output and economic high-speed growth. At the same time, capital controls and a pegged exchange rate system constrain banks from credit expansion. The extra part of production capacity turns into exports under the expectation of monetary expansion, which relieves the hyperinflation problem caused by credit expansion. Of course, such special financial arrangements also create negative effects. It is hard to avoid adverse selection and moral hazard problems under the mode of policy-related loans, which makes China's financial system (especially the state-owned bank system) vulnerable to nonperforming debt problems. A large amount of money residing in the financial system also sets a dangerous precedent for a future assets bubble and long-term inflation.

### China's high monetization rate co-existed with low inflation rate



SOURCE: WIND INFO

### 3.1 Process of Financial System Reform

This section will review the development of the Chinese financial market. Before 1978, China was a typical economy based on public financing with no modern financial system or services. The Chinese financial system was initially built in 1984, when the People's Bank of China (PBOC) was broken into four specialized banks: the Bank of China (BOC), the Industrial and Commercial Bank of China (ICBC), the Agricultural Bank of China (ABC) and the Construction Bank of China (CBC). At that time, there was a two-tiered bank system: the first tier is the PBOC, working as a central bank; and the other tier was formed by four specialized banks. Since the 1990s, the original two-tiered financial system has developed further with re-

spect to several aspects: since 2003, the central bank has no longer been involved in banking supervision, new banks and non-bank financial institutions have emerged, and the Chinese stock market has developed gradually.

Development of the Chinese financial system can be divided into five periods: the initial stage (1978-1983), development stage (1984-1993), acceleration stage (1994-1997), adjustment stage (1998-2001) and new reform stage (2002- now). Table 1 shows the background, reform policy and major events for each stage of financial system reform.

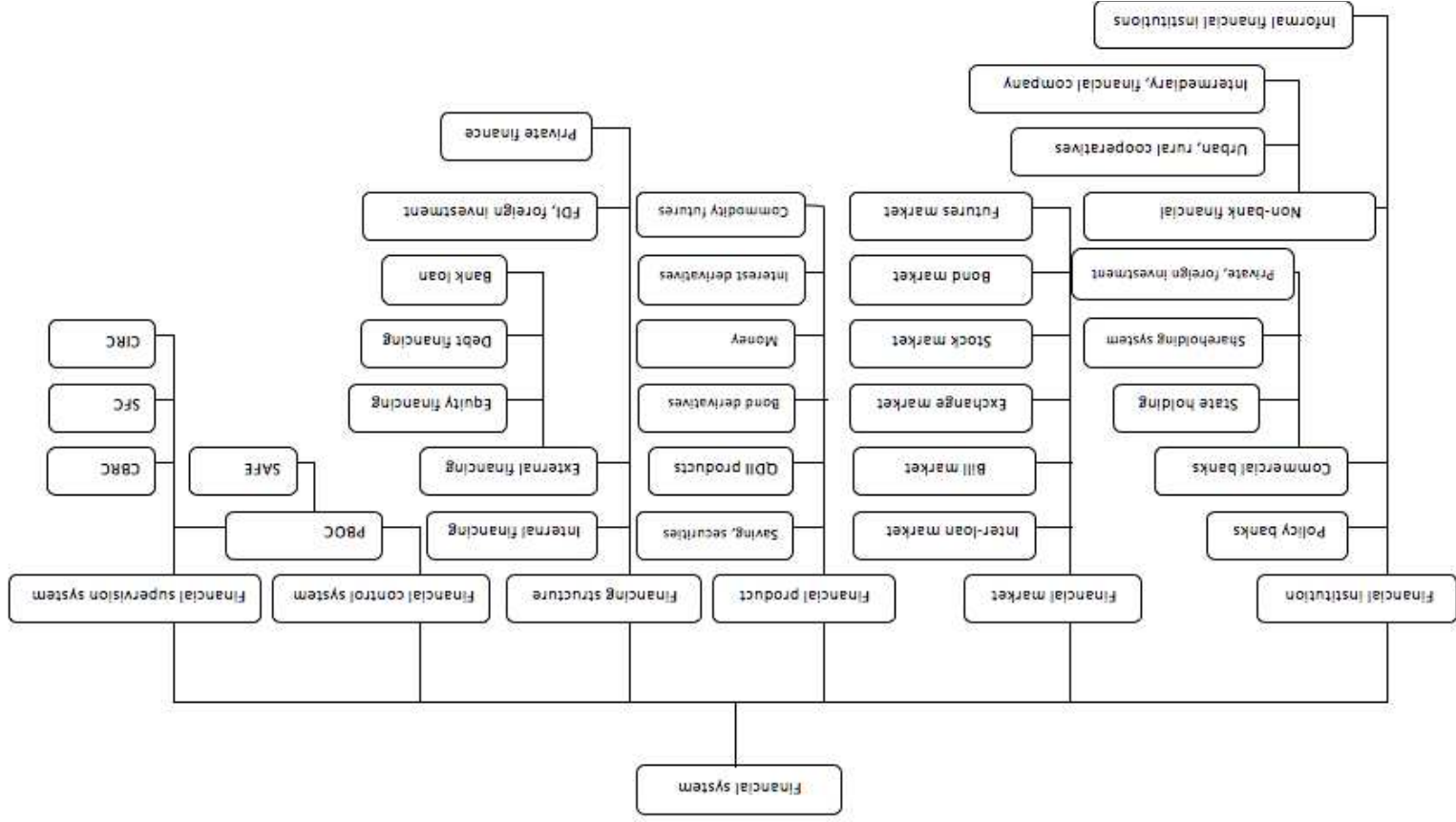
From the history of Chinese financial system reform, it is not difficult to observe that every reform in every stage aimed to solve the problems that were being encountered at that time. In China, the development of a market economy demands reform in the financial system, and financial system reform in turn promotes the development of a market economy. After over 30 years of reform, China has initially established a financial system structure that matches the development of the market economy and has also made great progress in financial institutions, markets, products and the diversification of the financing structure and in the specialization of the financial macrocontrol and supervision system (Figure 6).

### Different stages in the Chinese financial system reform

Stage	Main policy	Major events
First stage (1978-1983) <ul style="list-style-type: none"> <li>➢ Starting stage</li> <li>➢ Reform the 'unification' financial system</li> </ul>	<ul style="list-style-type: none"> <li>➢ The financial system reform started after the Third Plenary Session of the Eleventh Central Committee in 1978</li> <li>➢ A series of reform has taken place in financial field, especially for the financial institutions.</li> </ul>	<ul style="list-style-type: none"> <li>➢ PBOC focused on its national central bank function.</li> <li>➢ Four national specialized bank took over PBOC's regular commercial operation function and the two-layered bank system was established.</li> <li>➢ State Administration of Foreign Exchange (SAFE) was established to manage the foreign exchange.</li> </ul>
Second stage (1978-1993) Development stage <ul style="list-style-type: none"> <li>➢ Financial market not founded</li> </ul>	<ul style="list-style-type: none"> <li>➢ Begun to establish pilot projects for financial system reform.</li> <li>➢ Direct credit management became one tool of central bank's monetary policy.</li> <li>➢ Commercial shareholding banks was permitted.</li> </ul>	<ul style="list-style-type: none"> <li>➢ Rural and urban credit cooperatives developed dramatically.</li> <li>➢ Inter-lending market, bill market and foreign exchange market were initially established.</li> <li>➢ Shanghai and Shenzhen stock exchange were established.</li> </ul>



- |                                    |   |  |   |
|------------------------------------|---|--|---|
| <p>Third stage<br/>(1994-1997)</p> | <ul style="list-style-type: none"> <li>➤ Acceleration stage</li> <li>➤ Financial system reform in progress</li> </ul>   | <ul style="list-style-type: none"> <li>➤ “Decision on reform of financial system” and “Notice on further reform of foreign exchange management system” were enacted.</li> <li>➤ Law of the People’s Bank of China, Law of Commercial Bank, Law of Insurance, Law of Bill and Assurance Law were enacted gradually.</li> <li>➤ Provisional measures for the Portfolio Investment Funds, Company Law and Stock Act were enacted gradually.</li> <li>➤ Open market operation became the major control method for the central bank.</li> <li>➤ Unification of exchange rate</li> </ul>   | <ul style="list-style-type: none"> <li>➤ Three policy banks, i.e. CDB, ADBC and EXIM bank, were established.</li> <li>➤ Four national specialized banks changed to national commercial banks.</li> <li>➤ The first private commercial bank, i.e. Minsheng Bank, was established.</li> <li>➤ Inter-bank bond market was built nationally.</li> <li>➤ Monetary policy committee was established.</li> <li>➤ Free convertibility of the RMB under the current account was realized.</li> </ul>   |
| <p>Forth stage<br/>(1998-2001)</p> | <ul style="list-style-type: none"> <li>➤ Adjustment stage</li> <li>➤ 1997 Asian financial crisis</li> </ul>   | <ul style="list-style-type: none"> <li>➤ The first central financial conference on November, 1997 promoted the reform of financial supervision system.</li> <li>➤ The restructuring of various organizations under the State Council began.</li> <li>➤ The central bank has separated its bank supervision function since 2003 and the segregated supervision system of “one bank, three commissions” was built.</li> </ul>  | <ul style="list-style-type: none"> <li>➤ Four asset management corporations, i.e. Xinda, Huangrong, Great Wall and Orient, were established to strip off 1400 billion Yuan bad assets of four commercial banks and China Development Bank.</li> <li>➤ CSRC, CIRC and CBSC were established.</li> </ul>  |
| <p>Fifth stage<br/>(2002-now)</p>  | <ul style="list-style-type: none"> <li>➤ New reform stage</li> <li>➤ China accessed WTO in late 2001</li> <li>➤ The second Central Financial Conference in Feb, 2002</li> </ul> | <ul style="list-style-type: none"> <li>➤ Established five-category credit and accounting rules.</li> <li>➤ Established information disclosure rules.</li> <li>➤ Started experimental reform of rural credit cooperatives.</li> <li>➤ Carried out shareholding reform for national commercial banks.</li> <li>➤ Established experimental reform for share-split.</li> <li>➤ Advanced interest rates marketization reform.</li> <li>➤ Set the exchange rate on a basket of world currencies.</li> <li>➤ Financial industry was totally opened after the WTO transitional period on November, 2006.</li> <li>➤ The third central financial conference on January, 2007 promoted the development of rural financial system reform and construction of multi-layered capital market system.</li> <li>➤ Permitted foreign banks to engage in RMB business.</li> <li>➤ Permitted various types of QDII and QFII to engage in stock trading respectively.</li> </ul> | <ul style="list-style-type: none"> <li>➤ Four national commercial banks except ABC have finished stockholding system reform and were listed for trading in stock exchanges.</li> <li>➤ Small and medium-sized enterprises board and growth enterprise market were opened.</li> <li>➤ Non-tradable share reform for national listed companies has completed.</li> <li>➤ Established corporate bond market.</li> <li>➤ Established futures market and enriched derivative products</li> <li>➤ Established SHIBOR rates.</li> <li>➤ China Investment Corporation was established to invest financial assets abroad using foreign reserves.</li> <li>➤ Foreign banks branched out to the rural region.</li> <li>➤ Small loan companies emerged.</li> <li>➤ Institutional investors including private-equity funds grew stronger.</li> </ul> |

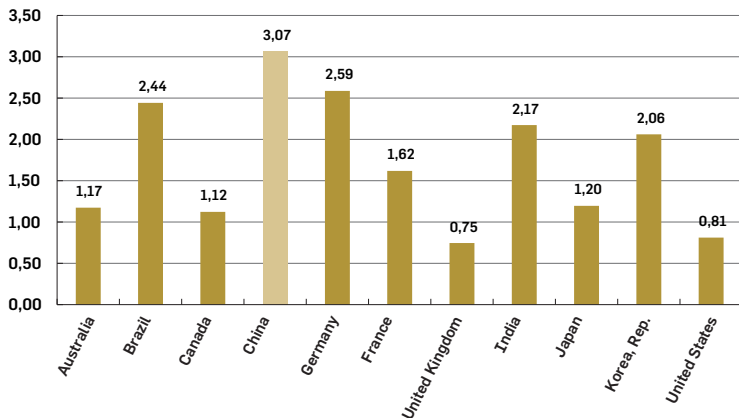


The basic structure of Chinese financial system

### 3.2 Overall Structure of the Chinese Financial Industry

The Chinese financial structure is typically bank dominated. From 1990 to 2007, the average ratio of deposit bank assets to stock market capitalization was 3.07, even higher than that of Germany, a typical bank-dominated country (Figure 7). Additionally, long-term bank loans account for about 80% of total financing during 1990 to 2007 (Table 2).

**The Chinese financial system with comparison to other major countries**



Note: The financial system structure is represented by the ratio of Deposit Money Bank Assets to the Stock Market Capitalization and the data is the average value between 1990 and 2007.

DATA RESOURCE: FINANCIAL STRUCTURE DATASET (WORLD BANK, 2008)

### China's financial structure from 1997 to 2008

(unit: 100 million RMB, %)

Year	Total financing	Bank loans	Proportion	Treasury bond	Proportion	Corporate bonds	Proportion	Stock	Proportion
1997	14174	11339	80.00	1865	13.16	35	0.25	934	6.59
1998	14909	11846	79.46	2218	14.88	42	0.28	804	5.39
1999	14562	10721	73.62	2776	19.06	167	1.15	897	6.16
2000	17163	12499	72.83	2478	14.44	83	0.48	2103	12.25
2001	16555	12558	75.86	2589	15.64	147	0.89	1252	7.56
2002	24233	19228	79.35	3718	15.34	325	1.34	962	3.97
2003	35154	29936	85.16	3525	10.03	336	0.96	1357	3.86
2004	29023	24066	82.92	3126	10.77	327	1.13	1504	5.18
2005	31507	24617	78.13	2996	9.51	2010	6.38	1884	5.98
2006	39874	32687	81.98	2675	6.71	2266	5.68	2246	5.63
2007	49817	39205	78.70	1790	3.59	2290	4.60	6532	13.11
2008	60486	49854	82.42	1027	1.70	6078	10.05	3527	5.83
2009	130747	105225	80.48	8182	6.26	12320	9.42	5020	3.84

Note: Public offering of financial institutions is not included in stock financing. Corporate bonds include entrepreneur bonds, short-term corporate bonds, medium-term note, collective debt, detachable bonds and corporate debts.

DATA RESOURCES: REPORT ON CHINESE FINANCIAL MARKET DEVELOPMENT, 2009

As the Chinese economy continues to climb, the development of the stock market accelerates. Overall, however, the stock market cannot efficiently replace the financing function of large banks. From 1993 to 2009, the average amount of domestic stock market financing only accounted for 6.42% of bank loans and merely 23.21% even during the bull stock market of 2007. Additionally, equity financing is unstable compared with bank loans, that is, the financing amount available in different years fluctuates with the stock market cycle (Table 3).

### **Comparison of Chinese stock financing and bank loans (100 million RMB)**

Year	Stock financing in Domestic market	Bank loans	Ratio (%)
1993	314.54	6335.40	4.96
1994	138.05	7216.62	1.91
1995	118.86	9339.82	1.27
1996	341.52	10683.33	3.20
1997	933.82	10712.47	8.72
1998	803.57	11490.94	6.99
1999	897.39	10864.36	8.27
2000	1541.02	13346.61	11.55
2001	1182.13	12439.41	9.50
2002	779.75	18979.20	4.11
2003	823.10	27702.30	2.97
2004	862.67	19201.60	4.49
2005	338.13	16492.60	2.05
2006	1231.89	31441.30	3.92
2007	8431.86	36322.51	23.21
2008	3308.16	41703.76	7.93
2009	3923.51	96290.18	4.07

*Note: National stock financing is the sum of A share and B share financing.*

DATA RESOURCE: PBOC, CSRC

The bank-dominated characteristic of the system can also be found from the comparison of bank, securities and insurance industry data. First, among the securities issued from 1998 to 2008, in total, 8440 billion RMB treasury bonds, 5490 billion RMB of policy-oriented financial bonds, 700 billion RMB of corporate debt and 2020 billion RMB of stock financing were issued. All of them only amount to 69.39% of the 24000 billion bank loans. Bank assets totaled 62,400 billion RMB in 2008 and 78,800 billion RMB in 2009, while insurance assets were valued at 3,300 billion in 2008 and 4,100 billion in 2009, which only accounted for about 5% of bank assets.

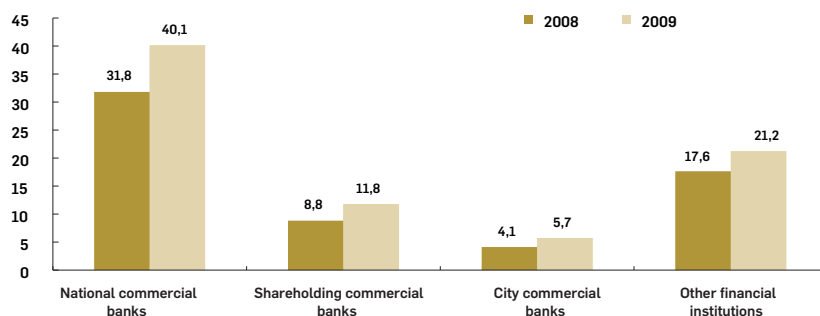
### 3.3 Chinese Financial Institutions and Financial Market Development

#### A. Banks

The banking industry in China has the dominant position in the financial system, and the situation will hold for a long time; this makes the bank-dominant financial system more endogenous and path dependent. From the internal structure, four nationally owned commercial banks dominate the banking system, and it will endure for a long time. The shareholding commercial banks have recently been in a steady state of development; city commercial banks have grown rapidly in numbers since 1996, after the acceleration of Chinese banking reform. Moreover, a variety of reform processes continue in other financial institutions, including policy-related banks, rural commercial banks, rural cooperative banks, urban credit cooperative, rural credit cooperative, enterprise group finance companies, trust and investment corporation, financial leasing companies and postal savings banks.

The national banks' dominance is obvious from the ownership distribution of the Chinese banking industry. At the end of 2009, the total assets of different financial institutions totaled 78,800 billion RMB, among which national commercial banks owned 40,100 billion, accounting for 50.89%, shareholding commercial banks had 11,800 billion, accounting for 14.97%, city commercial banks had 5,700 billion, accounting for 7.23%, and other institutions had 21,200 billion, accounting for 26.90%. (See Figure 8 for details.) Therefore, national commercial banks account for nearly half of the total bank assets. State-owned property is more obvious if taking into account the state-owned portion of shareholding commercial banks, city commercial banks and other financial institutions

**Assets for different financial institutions (1 trillion RMB)**



DATA SOURCE: CBRC

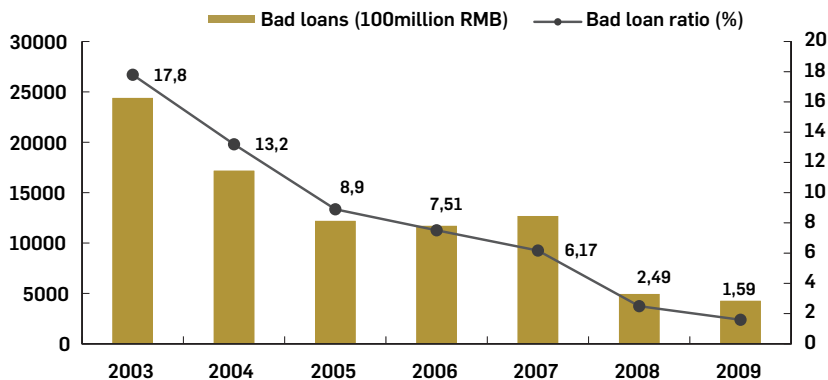
An ownership structure dominated by national banks is the pronounced feature of the Chinese banking system, which is deeply rooted in the special political, economic and cultural foundation of China and also determines other characteristics in China's

financial industry. On the one hand, the state-owned structure guarantees that the government can employ a great amount of financial resources and plays an important role in maintaining the “national credit” and its financial control power. On the other hand, related soft-budget constraints and principal-agent problems threaten the development of Chinese commercial banks. Therefore, the difficulties for further reform include official dominance of banking operation, high transaction costs, high agency costs and the usual expectation of “state takes final risks” in the financial industry.

Recently, before the end of the WTO transition period, having benefited from policy reforms, market liberalization and sustained economic growth, China finished a major split-off of bad loans and a provision of capital for major commercial banks, reconstructed banks’ capital and created favorable conditions for subsequent shareholder reforms and public listings. After an arduous restructuring and transformation of operational mechanisms, the development of Chinese banking has achieved remarkable results, for example, the non-performing loan ratio declined for seven consecutive years, corporate governance continued to improve, internal control and risk management systems have strengthened and anti-risk and sustainable development capabilities have been greatly enhanced.

According to statistics from CBRC, at the end of 2009, domestic and foreign assets of Chinese banks totaled 78,800 billion RMB, more than 400 times the value in 1978; assets of banks with adequate capital account for 99.9% of total bank assets; the capital return was 16.24%; the non-performing loan ratio of major commercial banks declined to 1.59%; provision coverage reached 155.02% (Figure 9). The market value of ICBC, CCB and BOC were 269 billion, 2015 billion and 154 billion US dollars, ranking first, second and fifth globally, respectively in terms of market capitalization.

**Total bad loans and bad loan ratio for Chinese major commercial banks**



DATA RESOURCE: CBRC WEBSITE

From an international comparison, the operational efficiency of the Chinese bank sector has significantly improved: not only is the profitability (such as ROA, ROE) close to European and American levels but also operating efficiency (denominated by operating cost) has been greatly improved. Overhead costs, net interest margins and the cost-income ratio are also at a lower level (Table 4).

### The operational capability of Chinese banking sector with comparison to other major countries

Countries	Bank Overhead Costs / Total Assets	Net Interest Margin	Bank ROA	Bank ROE	Bank Cost- Income Ratio
China	0.0128	0.0225	0.0098	0.1349	0.4885
America	0.0355	0.0417	0.0119	0.1365	0.6725
Canada	0.0306	0.0229	0.0056	0.0431	0.6974
Great Britain	0.0300	0.0243	0.0126	0.1031	0.6468
Germany	0.0372	0.0281	0.0054	0.0556	0.7500
France	0.0330	0.0303	0.0051	0.0502	0.7388
Japan	0.0166	0.0178	-0.0006	-0.0007	0.7087
India	0.0248	0.0334	0.0070	0.1297	0.5888
Korea	0.0216	0.0264	0.0015	-0.0573	0.7101
Australia	0.0362	0.0197	0.0053	0.0597	0.6663
Brazil	0.0856	0.1314	0.0216	0.1218	0.7643

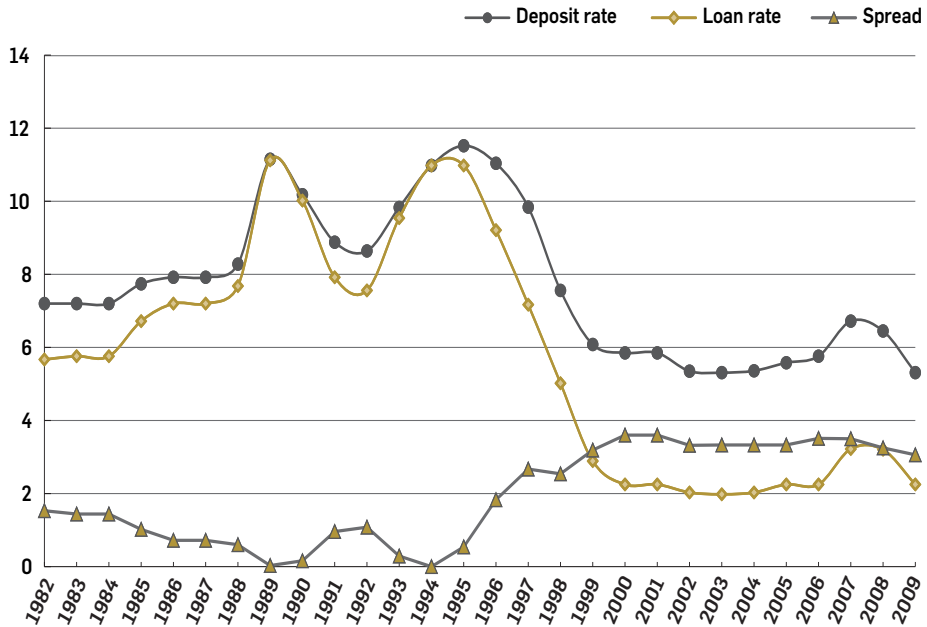
DATA RESOURCE: CALCULATED FROM THE DATA OF FINANCIAL STRUCTURE DATASET (WORLD BANK, 2008)

According to the British Bankers magazine, in 2010, China has 84 banks ranked among the top 1000 banks in the world, of which the total assets account for 9% of the 1000 banks' assets, and pre-tax profit accounts for 25%. The ICBC ranked 7th and was the most profitable bank in the world. Therefore, from the standpoint of capital, the ratio of bad loans and profitability, China's banking system has been formed stable, and the current China's banking sector is in the best period of its history.

Note that the achievements that Chinese banks (especially those large national banks) have made recently are because of "extensive development," with the strong support of the government. It could not have occurred without asset injection and a split-off of bad assets. Moreover, although the operating efficiency indicators of the Chinese banking sector are near the levels of developed countries in numbers, they were made in an environment of a relatively closed market, a low level of competition and large deposit-loan spread (Figure 10). Compared with world-class financial institutions, the internal development of the Chinese banking sector is insufficient; also, international competitiveness is still weak. This is reflected mainly

in the following four areas: first, banks still have considerable shortcomings in corporate governance; second, an internationally competitive business model has not formed; third, risk control is still at a low level; fourth, innovation and innovative capabilities are relatively less developed.

**Chinese deposit and loan rates and their spreads: 1982-2009**



DATA RESOURCE: CBRC WEBSITE

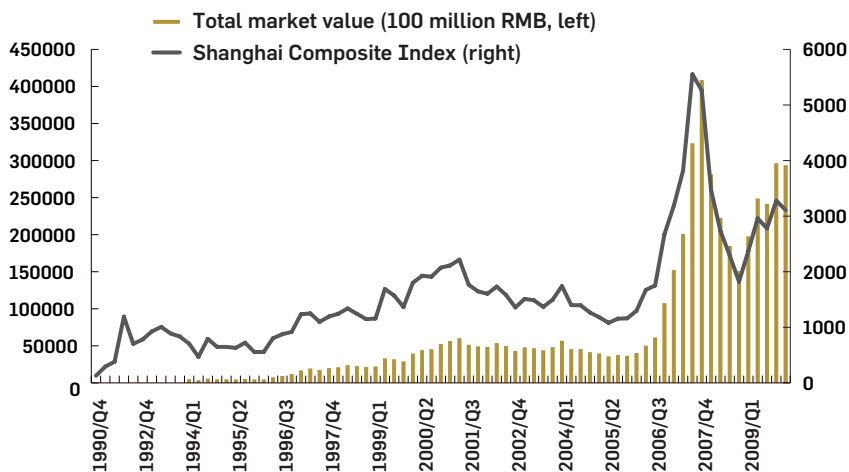
*B. Stock market*

With the completion of non-tradable share reform and several IPOs of some large enterprises in recent years, the scale and capacity of the stock market has greatly increased, and the structure of investors has become more diversified in China. Particularly after the launch of growth enterprises market, China’s stock market has formed a multi-layered market system, including a main board, a small- and medium-enterprise board, a growth enterprise market and an agency-share transfer system. At the end of 2009, there were 1718 listed companies, 215 more listed companies than in 1990; the market capitalization of listed companies has reached 29.08 trillion RMB, 86.70% of GDP. Since 2006, the IPO capital that mainland China and Hong Kong have raised has become the world’s largest. In 2009, with the Shanghai Composite Index climbing to 3277.14 points at the end of year from 1820.81 points at the beginning of the year, the total market value of Shanghai and Shenzhen rose from 12.13 trillion to 24.27 trillion RMB, which made it the world’s second largest market, following only the USA (Figure 11).



## Chinese stock market value and A share index: 1990-2010

### major commercial banks



### The development of Chinese stock market

Year	Total number of listed companies	Total shares (100 million)	Capital stock in circulation (100 million)	Total market in value (100 million RMB)	A share market value in circulation (100 million)	Average P/E ratio	Average P/B ratio
1990	8	0.97	0.47	23.82	9.82	442.61	15.26
1995	323	851.35	301.28	3939.28	797.47	19.69	2.02
2000	1088	3801.60	1365.04	50744.88	15610.91	61.99	5.04
2001	1160	5220.10	1818.89	46326.47	13399.66	61.20	3.58
2002	1224	5877.35	2041.53	40964.56	11755.03	44.29	2.81
2003	1287	6436.71	2280.91	45645.09	12351.06	33.36	2.69
2004	1377	7163.47	2591.90	39896.68	11015.47	21.55	2.09
2005	1381	7638.81	2924.03	34952.50	10045.82	20.12	1.70
2006	1434	14847.46	5562.09	103524.92	23697.27	27.33	3.03
2007	1550	22312.16	10181.37	401287.71	90724.43	40.22	6.31
2008	1625	24378.22	12373.12	148383.09	44549.24	16.95	2.09
2009	1718	26212.33	19721.67	290785.93	149615.16	25.57	3.41

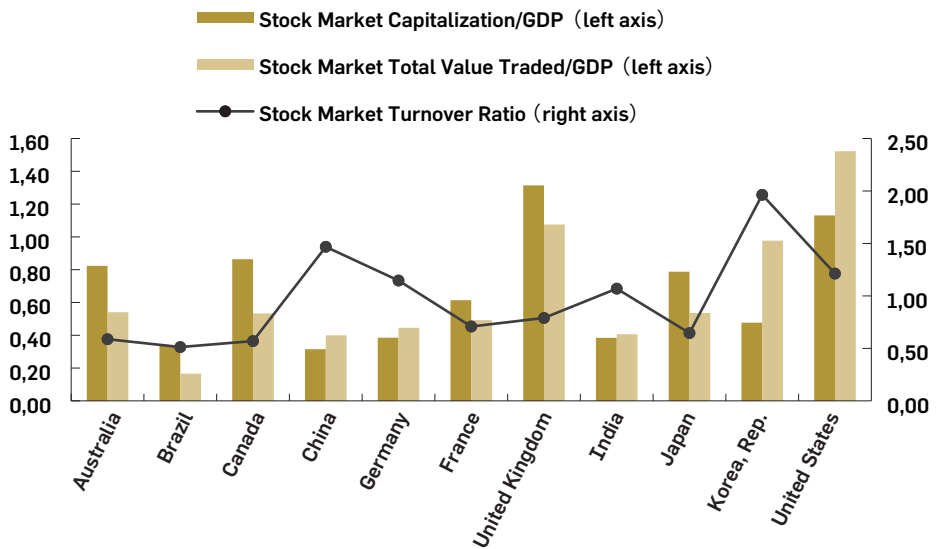
DATE RESOURCE: WIND

Corresponding to the growth of the stock market, the structure of market investors has also significantly changed. In the past ten years, the number of Chinese institutional investors has greatly increased. The money raised by public funds reached hundreds of billions, and private equity funds developed fast. With the continuous heat of the A-

share market since 2006, more and more small and medium investors have participated in the market; as of April 2010, the number of stock investors had reached 150 million, and the number of mutual fund investors had reached 30 million.

It can be concluded that after more than ten years of development, the Chinese stock market has made a great achievement in both scale and capacity, but there is still a great gap compared with well-developed foreign stock markets. From comparative international data of the World Bank in 2008, from 1990 to 2007, Chinese market capitalization and total value traded over GDP were close to that of India and Brazil but significantly lower than the major developed countries, such as the US, Japan and Canada. Moreover, the Chinese stock market is unstable in that the stock average turnover ratio is far higher than for major developed countries (Figure 12).

### Chinese stock market and comparison of major countries



Note: Data is averaged value between 1990 and 2007.

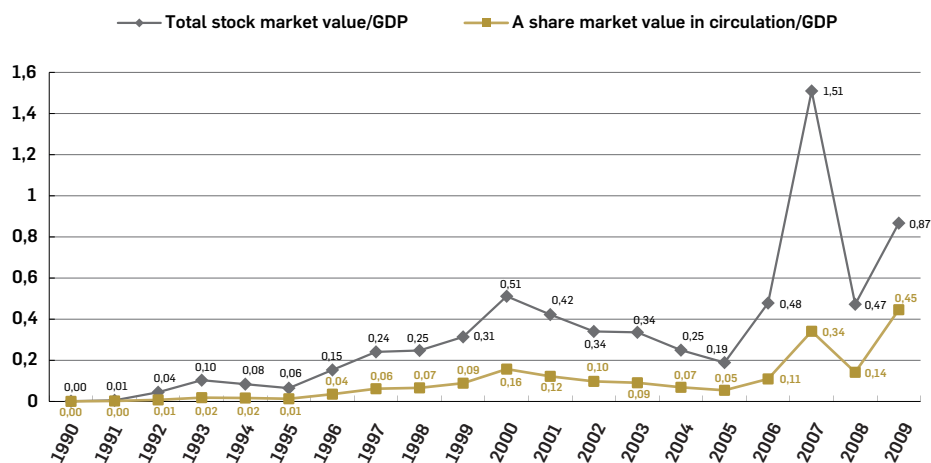
DATA RESOURCE: FINANCIAL STRUCTURE DATASET (WORLD BANK, 2008)

Note that a great achievement has been made in the “quantity” of stock market development but relatively less achievement has been made in “quality.” Some challenges still exist in the market structure and efficiency, corporate governance and supervision efficiency, the stock exchange’s competitive advantage and infrastructure, and in comprehensive legislation and enforcement. In particular, problems mainly exist for corporate governance and market stability, such as the strong speculative atmosphere and high stock volatility. This may affect the effectiveness of resource allocation in the stock market.

Because of instability, the Chinese stock market has significant volatility. For the ratio of market value to GDP, there were two peaks, in 2000 and 2007, and three troughs, in 1995, 2005 and 2008 (Figure 13).

In fact, many empirical studies have demonstrated that the Chinese stock market has not reached a state of weak efficiency (refer to Yu 1995, Wu 1996 and Hu et al. 2002.) Although the number of Chinese institutional investors has significantly increased, corporate governance has not been significantly improved. For many funds, opportunism and speculation have replaced value investment, which obviously only reflects short-term vision. Moreover, the Chinese stock market is known as a policy market, in which investor behavior is largely affected by government policy, which causes a policy-dependent bias. The policy-dependent bias, along with investor-behavior biases such as loss aversion, overconfidence and excess fear, are likely to cause the market to overreact.

**The ratio of Chinese stock market over GDP: 1990-2009**

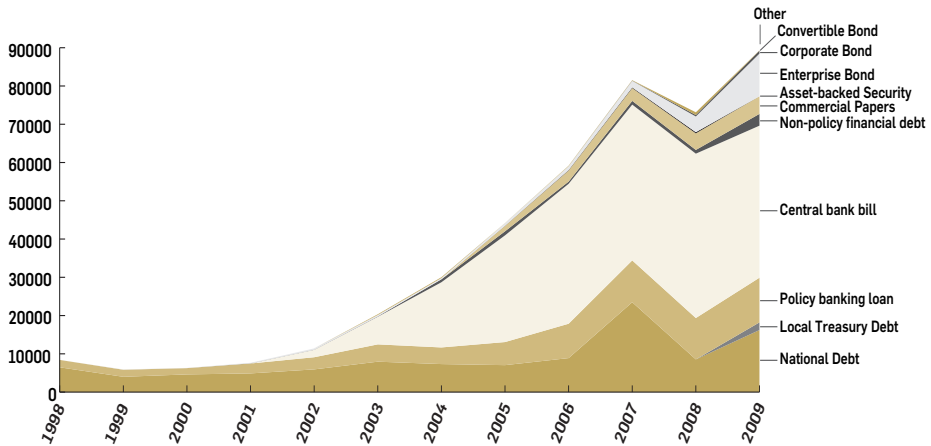


DATA RESOURCE: CHINA FINANCIAL YEARBOOK IN EVERY YEAR

### C. Bond Market

The scale of the Chinese bond market has rapidly increased, from 840.4 billion in 1998 to 8.930 trillion RMB in 2009, a 10.63 times growth in 11 years (Figure 14). In terms of the issuing structure, government or government-related bonds (such as central bank bills or policy-oriented financial debt) nearly dominated the bond market. Although the scale of corporate bonds continuously grew, from 7.3 billion in 1999 to 1.120 trillion RMB in 2009, it only accounted for a small portion of the total bond market.

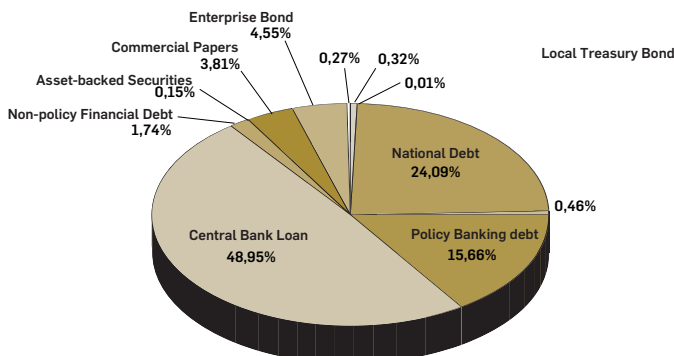
## The Structure of Chinese Bond Market: 1998-2009



DATA SOURCES: REPORT ON CHINA'S FINANCIAL MARKET DEVELOPMENT, 2009

From 1998 to 2009, the cumulative issuing amount in the bond market was 43.732 trillion RMB. Among the bond market, the national debt issued totaled 10.54 trillion RMB, accounting for 24.09% of the total issuing value; policy-banking debt issued totaled 6.85 trillion RMB, accounting for 15.66%; central bank bills issued totaled 21.41 trillion RMB, accounting for 48.95%; non-policy financial debt issued totaled 760.8 billion RMB, accounting for 1.74%; commercial papers issued totaled 1.67 trillion RMB, accounting for 3.81%; asset-backed securities issued totaled 63.8 billion RMB, accounting for 0.32%; enterprise bonds issued totaled 138 billion RMB, accounting for 4.55%; corporate bonds issued totaled 120.1 billion RMB, accounting for 0.27%; convertible bonds issued totaled 138.3 billion RMB, accounting for 0.32%; local treasury debt started to issue in 2009, and the total issuing size was 200 billion RMB, accounting for 0.46% (Figure 15).

## Cumulative issuing scale of Chinese Bond Market: 1998-2009



DATA SOURCES: REPORT ON CHINA'S FINANCIAL MARKET DEVELOPMENT, 2009

In terms of bond market transactions (Table 6), from 1997 to 2009, the spot trading volume of the interbank bond market increased from 0.89 billion to 48.87 trillion RMB, and the repurchase transaction volume increased from 356 billion to 70.29 trillion RMB. In the exchange-traded bond market, the treasury spot trading volume increased from 356.1 billion in 1997 to 870.8 billion in 2002, and then it declined to 208.5 billion RMB in 2009. The treasury repurchase transaction volume differed across various years: the lowest number was 1.28 trillion in 1997, and the highest number was 5.30 trillion in 2003. It was 3.55 trillion in 2009. The trading volume of the over-the-counter (OTC) market increased from 1.44 billion in 2002 to 6.28 billion RMB in 2009.

As of 2009, the top three categories of bonds ranked by trading volume were policy-oriented financial debt, central bank debt and medium-term notes, accounting for 36.41%, 29.80% and 13.43% of the total volume, respectively. In terms of turnover rate, the most liquidity security is in medium-term notes, with a turnover rate of 761%; it is followed by commercial paper, policy-oriented financial debt and central bank bills, with turnover rates of 616%, 400% and 344%, respectively.

### Trading Volume in Bond Market, 1997-2009

(Unit: 100 million RMB, %)

Year	Interbank bond market				Exchange bond market				OTC
	Spot trading Volume	YoY	Repurchase trading Volume	YoY	Spot trading volume	YoY	Repurchase trading Volume	YoY	
1997	8.90	—	309.87	—	3561.66	—	12876.77	—	0
1998	76.39	758.52	1021.48	229.65	6059.90	70.10	15540.86	20.69	0
1999	150.50	97.03	3956.93	287.37	5300.90	-12.50	12890.44	-17.05	0
2000	647.66	330.33	15784.94	298.92	4157.50	-21.60	14733.66	14.30	0
2001	844.34	30.37	40133.30	154.25	4815.60	15.80	15487.63	5.12	0
2002	4343.50	414.43	101885.21	153.87	8708.69	80.80	24419.66	57.67	14.40
2003	31609.70	627.75	117203.41	15.03	5756.16	-33.90	52999.86	117.04	24.50
2004	28196.45	-10.80	94367.54	-19.48	2966.50	-48.50	44086.63	-16.82	62.20
2005	63378.92	124.78	159007.15	68.5	2779.05	-6.30	23261.20	-46.42	65.70
2006	109326.62	72.50	265912.71	67.23	1540.70	-44.60	15413.30	-34.75	42.80
2007	165915.94	51.76	447924.95	68.45	1267.32	-17.70	18345.09	19.02	35.70
2008	408269.74	146.07	581205.24	29.76	2122.51	67.50	24268.66	32.29	30.40
2009	488682.15	19.70	702898.60	20.94	2085.11	-1.76	35475.87	46.18	62.80

DATA SOURCES: REPORT ON CHINA'S FINANCIAL MARKET DEVELOPMENT, 2009

With the rapid development of bond markets, the number of market participants has increased from 315 in 2000 to 9,247 in 2009, a nearly 30-fold increase in 10 years (Table 7). With the increasing participation of mutual funds and other enterprises, the bond market has gradually developed into a diversified market with various agencies.

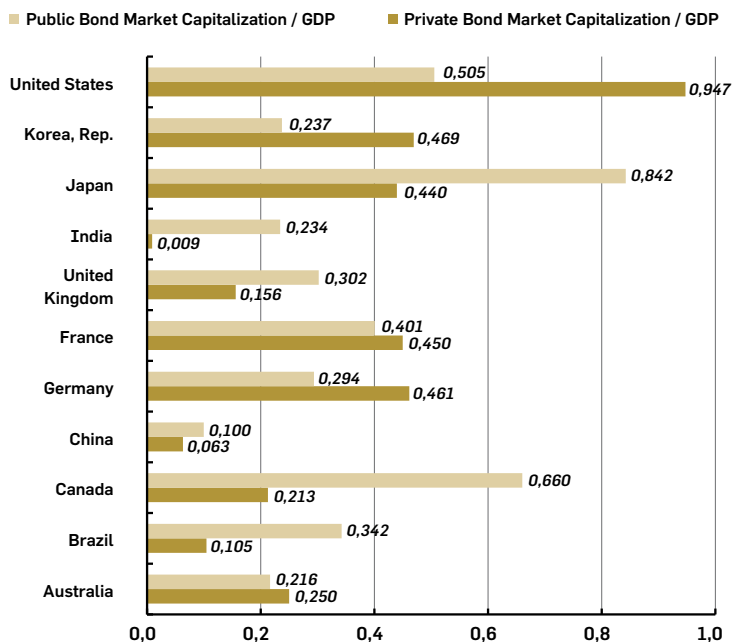
### Number of participants in the interbank bond market, 2000-2009

Year	Bank	Securities Firm	Mutual Fund	Insurance Company	Nonbank financial institutions	Credit union	Other	Enterprise	Total
2000	159	2	32	11	7	102	2	0	315
2001	156	2	41	11	15	254	2	1	482
2002	182	25	78	20	52	423	2	32	814
2003	198	87	192	38	97	575	3	1889	3079
2004	231	95	361	63	117	665	11	2755	4298
2005	271	103	500	91	121	680	13	3729	5508
2006	295	107	613	104	136	711	23	4450	6439
2007	308	112	688	113	142	762	30	4940	7095
2008	341	117	1053	128	154	801	24	5681	8299
2009	391	123	1589	131	164	843	16	5990	9247

DATA SOURCES: REPORT ON CHINA'S FINANCIAL MARKET DEVELOPMENT, 2009

The Chinese bond market is still in an immature stage: its size is much smaller than that of the US, France, Germany, Japan, Canada and other developed countries; it is also smaller than South Korea, Brazil and other emerging markets (Figure 16). In addition, the structure of products in the Chinese bond market is still immature; particularly, the corporate bond market is largely lagging behind. Only a few bonds, such as commercial paper, convertible corporate bonds, equity warrant bonds and listed corporate bonds are “true” corporate bonds, whose proportions are still much lower than those in mature markets. Moreover, many issues, such as market segmentation, the underdevelopment of intermediaries, and the homogeneity of investors, have limited the bond market from discovering the market price and promoting financial efficiency.

## Comparison between Chinese Bond Market and Other Countries



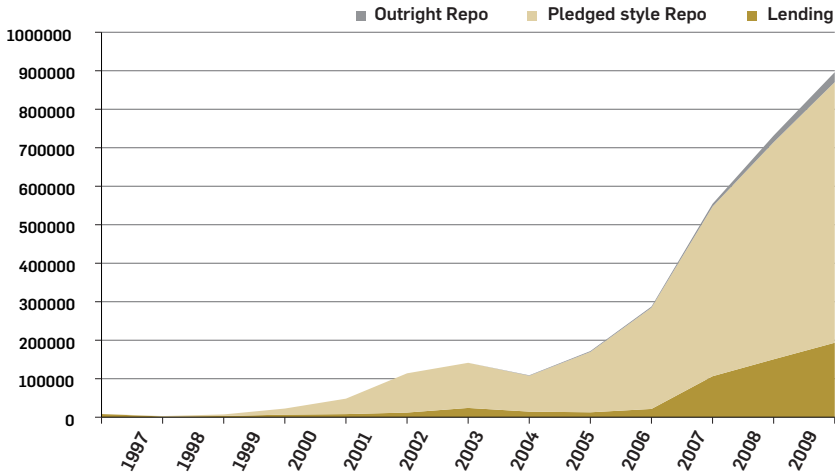
DATA SOURCE: FINANCIAL STRUCTURE DATASET (WORLD BANK, 2008)

### D. Money Markets

Not until the early 1980s did the Chinese money market begin to develop. After 1998, it gradually got on the right track. After 20 years of development, the Chinese money market has developed a market system that includes the interbank lending market, interbank bond market, and bill market. The interbank lending market has become the main place for the position management of financial institutions; the interbank bond market has become the main platform for the central bank's open market operation; and the bill market has become an important channel for short-term financing and the bank's liquidity management.

In terms of the trading categories, the Chinese money market mainly contains the interbank lending market, bond repurchasing market and bill market. From 1997 to 2009, the cumulative trading volume of the interbank lending market has increased from 829.8 billion to 19.35 trillion RMB; the trading volume of the pledged-style repo market has increased from 31 billion to 67.7 trillion RMB; the trading volume of the outright repo market has increased from 126.3 billion to 2.59 trillion RMB (Figure 17). In the bill market, the open interest of commercial paper has grown from 69.5 billion RMB in 1995 to 4.1 trillion RMB in 2009; the value of discounted bills has increased from 54.7 billion to 2.4 trillion RMB, accordingly.

## Trading Volume of interbank lending and bond repurchasing markets, 1997-2009 (Unit: 100 million RMB)



DATA SOURCE: CHINA FOREIGN EXCHANGE TRADE SYSTEM

In terms of market participants, the Chinese money market is divided into the interbank market and exchange market. The interbank market dominates the money market. This market has two significant features: first, banks (especially state-owned banks) and banking institutions (primarily credit unions) are the main players, and non-banking financial institutions only account for a small share; second, state-owned banks have the monopoly on providing money, and capital moves one-way, from banks (especially the four major state-owned banks) to other institutions. In contrast, non-banking financial institutions, particularly securities firms and mutual funds, dominate the exchange market. Because arbitrage activities between the two markets commonly exist, some features from interbank markets are also reflected in the exchange market. Also, the weak non-banking financial institutions often meet their financial needs by using interbank markets. However, due to different trading patterns and settlement systems between the two markets and the close relationship between the exchange and stock markets, the interest rate in the exchange market is more sensitive and volatile than the interbank market.

The Chinese interbank market has significant seasonal characteristics. Historical data show that the interest rate in the Chinese money market is mainly influenced by macroeconomic trends (mainly inflation and the market expectation of inflation), monetary policy adjustments (mainly the benchmark interest rate and deposit reserve rate) and open market operations. Furthermore, in contrast to developed markets, an important feature of the Chinese money market is the interest rate jumps caused by arbitrage activities. In recent years, because of the intensive IPOs of new stock and their mispricing,



arbitraders often raise funds from the short-term money market to purchase new stocks, resulting in violent fluctuations in the money market rate.

Compared with the developed market, the Chinese money market has many problems, such as small trading volume, lack of diversity in financial products and an imperfect risk management system. The transactions in primary and secondary markets are only made by a few players, and thus the market rates lack elasticity; moreover, they are coupled with high information and risk costs and, hence, not efficient.

In terms of the interest rate discovery mechanism, SHIBOR still has some serious flaws as an indicator of monetary policy, and the money market thus lacks a stable long-term interest rate indicator. Moreover, in terms of market structure, due to the monopoly power of state-owned banks, each adjustment of the reserve rate causes an adjustment to the interbank market rate, accordingly. It makes the foundation of the market rate very fragile because state-owned banks have a significant impact on interest rates.

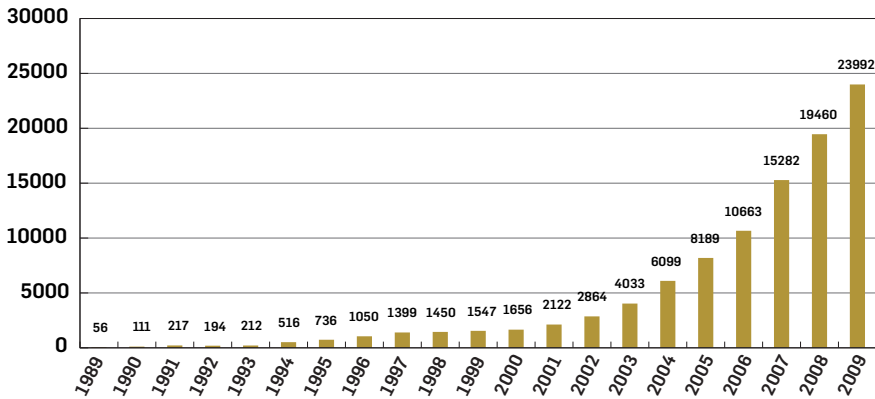
#### *E. Foreign Exchange Market*

Before the launch of the reform and opening policy, due to the shortage of foreign exchange, China implemented a stringent exchange control policy. After the reform of the foreign exchange system in 1994, China established a unified and standard interbank foreign exchange market. PBOC adjusted the RMB exchange rate by trading on the foreign market. In December 1996, China achieved convertibility for RMB's current account. Subsequently, China treated and managed international capital flows separately and promoted the convertibility of the RMB capital account step-by-step. In 2005, China implemented a series of reforms for RMB exchange rates, including the following: the relaxation of market access rules, enhancement of the diversification of foreign exchange trading, introduction of an OTC pricing system and a market-making system and improvement of the RMB exchange quotation.

Since 1949, the RMB exchange system has developed from managed rates to market rates. On January 1, 1994, China began to implement a market-based, unique, managed floating exchange rate system, the central bank set the floating range of the RMB exchange rate, and kept the RMB exchange rate stable by regulating the market. On July 21, 2005, the PBOC announced a managed floating exchange system, which means that the RMB exchange rate is no longer pegged to the US dollar but rather to a basket of currencies. RMB appreciated 2.1% against US dollar on that day. On June 19, 2010, the PBOC further promoted reform of the exchange rate, based on the market supply and demand, managing the RMB exchange rate according to the exchange rate floating band.

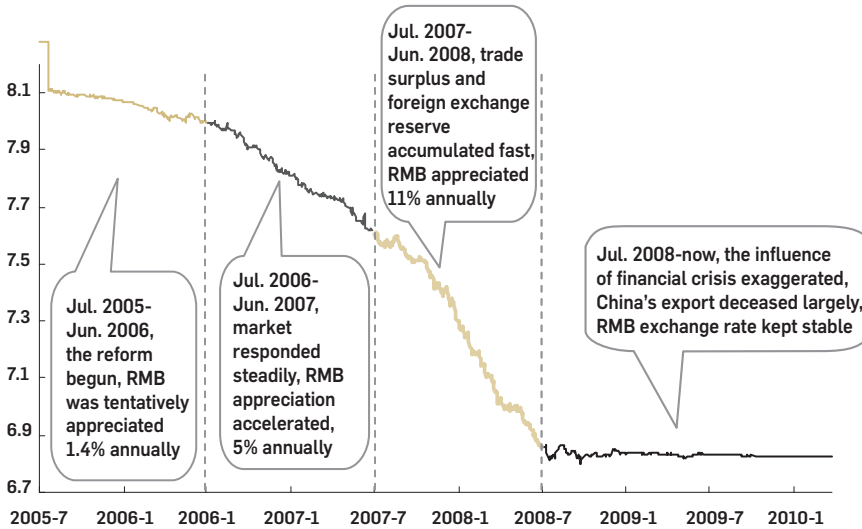
In the past 10 years, China's strong economic growth, sustained trade surplus and the continuous expansion of foreign exchange reserves (Figure 18) has generated more and more pressure on the appreciation of RMB. Since July 2005, when the reform of the RMB exchange rate began, the exchange rate of RMB to USD has experienced four stages (Figure 19). By the end of 2010, it had risen more than 20%. In contrast, the exchange rate of RMB to the Euro and Yen became more volatile (Figure 20).

### China's foreign exchange reserves, 1989-2009



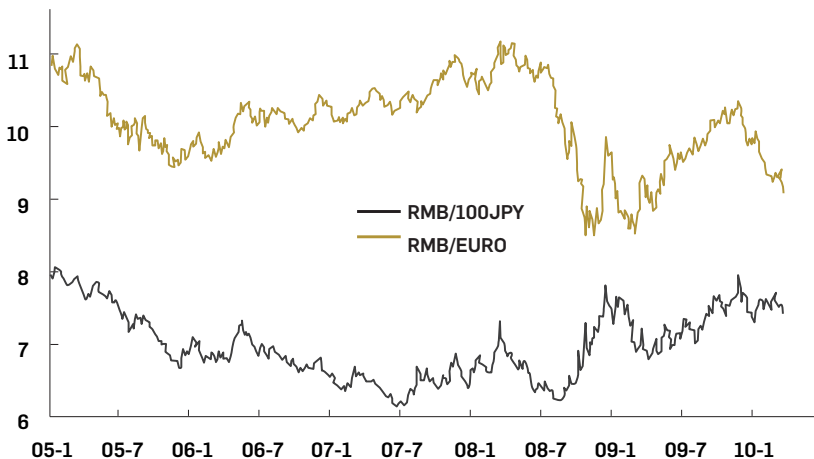
DATA SOURCE: WIND INFO

### Four stages of RMB exchange rate after the exchange rate reform



DATA SOURCE: THE PEOPLE'S BANK OF CHINA

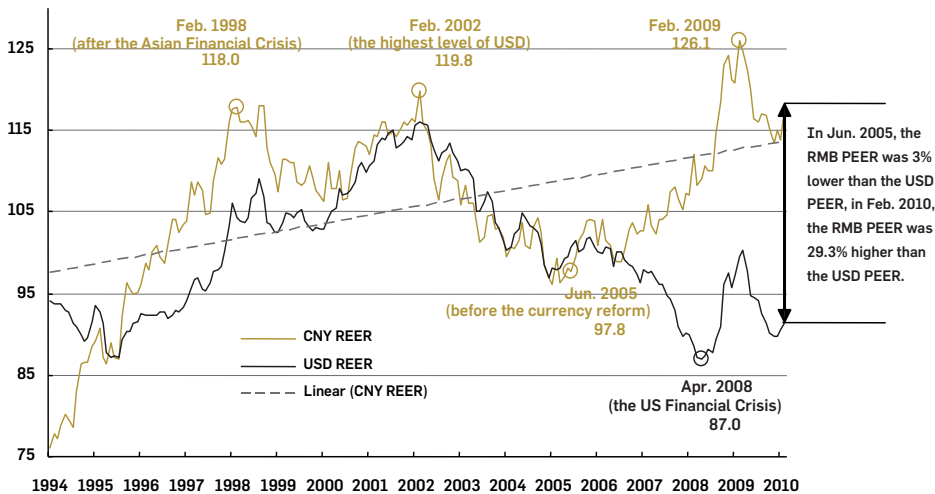
### The exchange rate of RMB against Euro and Yen



DATA SOURCE: THE PEOPLE'S BANK OF CHINA

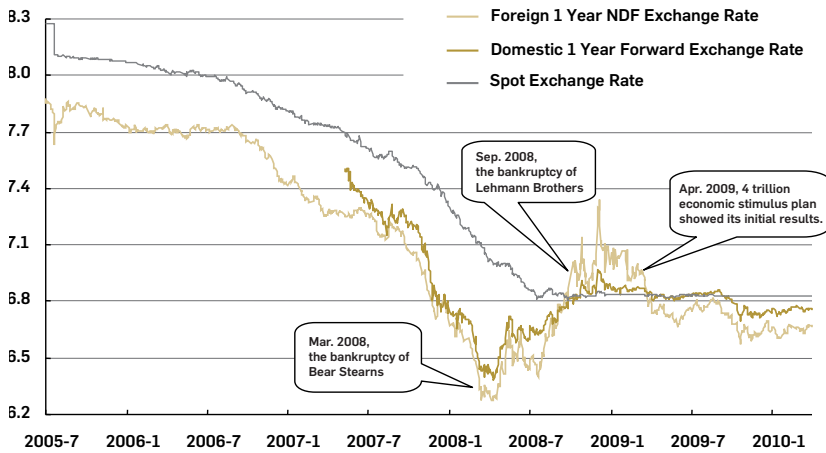
In recent years, with the development of China's foreign exchange rate reform, the RMB exchange rate relied more on market supply and demand, and the elasticity of RMB increased gradually (Figure 21). Since 2009, based on the forward RMB exchange rate, the expectation of RMB appreciation has strengthened again (Figure 22).

### The elasticity of RMB increased gradually



DATA SOURCE: THE PEOPLE'S BANK OF CHINA

## RMB forward exchange rate: 2005-2010



DATA SOURCE: THE PEOPLE'S BANK OF CHINA

Against a backdrop of an excess of foreign exchange reserves, the worldwide expectation of RMB appreciation and other various factors, the pressure of RMB appreciation tends to always exist. To maintain the stability of the RMB exchange rate, the PBOC intervened in the foreign exchange market and wrote it off to avoid significant impacts in the domestic money market. However, this strategy puts monetary policy into a dilemma: on the one hand, with the appreciation of the RMB, the write-off cost for PBC becomes higher and higher; on the other hand, because of the excess liquidity, the RMB might be depreciated internally and thus generate large inflation pressure. Thus, the reform of RMB becomes more urgent under this dilemma. The marketization of the foreign exchange rate will be the reform trend of the future.

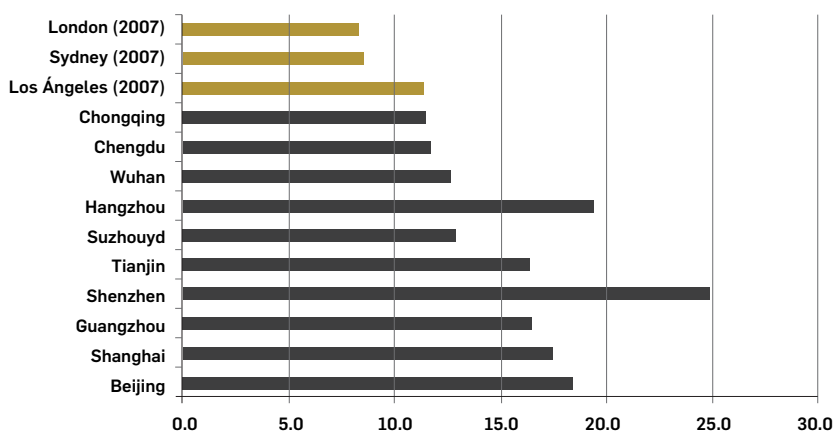
### F. Real Estate Market

Due to the huge market demand driven by high economic growth and urbanization, a negative long-term real interest rate, and narrow investment channels, real estate gradually became the main investment product in China. Housing and land prices in China were rising rapidly because of strong consumer and investment demand. According to the National Bureau of Statistics in China, since 2004, China's average commercial housing sales price rose more than 10%, and land and residential housing prices rose more than 10% a quarter for a long period of time. Since the second half of 2009, with the announcement of a \$4 trillion stimulus plan of the Chinese government, the Chinese real estate market boomed again, and housing prices in many areas rose more than 50% within six months.

The risk for the Chinese real estate market is continually increasing with the rise of housing and land prices. For the housing price-to-income ratio, the word average

level is 6 to 8; for London and Los Angeles, it was 9 to 12 at the peak time. However, even the second-tier cities in China are close to 10, first-tier cities such as Beijing, Shanghai, and Guangzhou are close to or even above 20 (Figure 23). For the housing price-to-rent ratio, China has reached approximately 400, far higher than international standards, specifically, 200 to 300 higher. The value of total amount of houses, construction projects and land reserves is three times the GDP, about 100 trillion RMB. The housing value-to-GDP ratio and rental income in Beijing and Shanghai are similar than they were in Hong Kong in 1997. Besides, the number of vacant houses is quite large, which is obviously caused by a large amount of speculation activities.

### Housing Price-to-Income Ratios of Major Cities in China

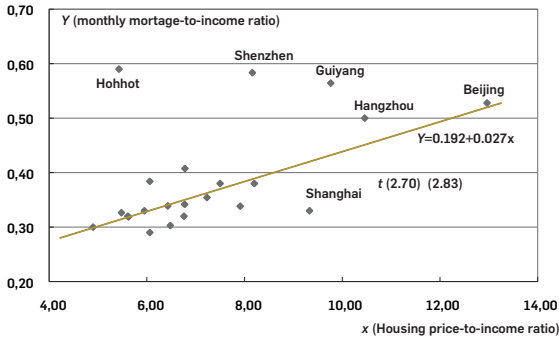


DATA SOURCE: NOMURA, DEMOFigureIA, PIVOT

Real estate credit in financial institutions has continued to expand with rising housing prices and demand. As of the end of 2009, real estate loans issued by major domestic financial institutions had reached 2.52 trillion RMB, accounting for 6.3% of the total loans. Individual housing loans have reached 4.41 trillion, up 46.4% compared with the same period last year and 37% higher than at the beginning of the year. New individual housing loans were 1.4 trillion throughout year 2009, about five times what they were in 2008 and twice as much as in 2007.

According to the PBOC's statistics in 2009 for 22 major cities' individual housing loans, most samplers' housing price-to-income ratios exceeded 6, and monthly mortgage-to-income ratios exceeded 30%, indicating that the risk of individual housing loans is increasing. From the joint distribution of the two ratios, Beijing, Hangzhou, Guiyang, Shanghai and Shenzhen have already reached a high-risk arena (Figure 24).

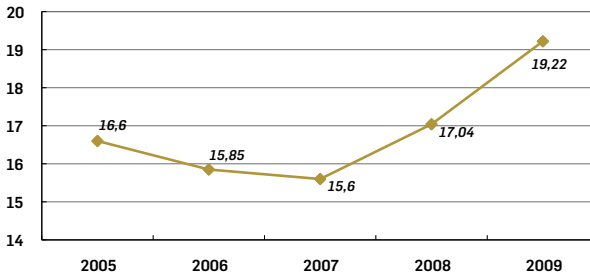
## Housing price-to-income ratio and monthly mortgage-to-income ratio in 22 major cities



DATA SOURCE: PEOPLE'S BANK OF CHINA, REPORT ON CHINESE REAL ESTATE FINANCE, 2009

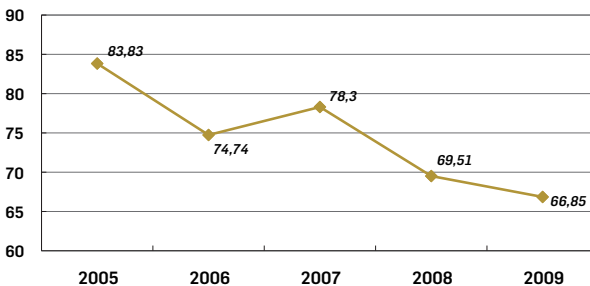
With housing prices continuing to rise, the average loan duration of borrowers rose sharply in 2008 and 2009 (Figure 25), 3.62 years longer than before. At the same time, the percentage of down payment from the borrower or his/her family members has been decreasing since 2005 (only a small increase in 2007), about 17 per cent within four years (Figure 26).

### The average loan duration of buyers (Unit: year)



DATA SOURCE: PEOPLE'S BANK OF CHINA, REPORT ON CHINESE REAL ESTATE FINANCE, 2009

### Proportion of down payment from the borrower or his/her family members (%)



DATA SOURCE: PEOPLE'S BANK OF CHINA, REPORT ON CHINESE REAL ESTATE FINANCE, 2009

In China, the social psychology of “house prices never fall” is causing more and more serious “real estate dependency,” which not only has led to excessive concentration of resources in the real estate industry but has also inhibited the innovation of local government and enterprises. In the past three years, almost all facts have tended to show that the Chinese real estate industry is in a very dangerous position. The skyrocketing price in the first quarter of 2010 is similar to the historical characteristics of the end of a housing bubble. It is hard to predict when the bubble will burst, but in China’s current situation, if the housing bubble remains uninhibited, the probability of an asset price collapse will increase. Because the real estate industry is closely related to the stability of the macroeconomy, since April 2010, the Chinese government has been implementing a series of policies, including a credit crunch and tax adjustments, to inhibit fast growing housing prices.



#### **4.1. The Framework of Financial Policy**

China’s financial policy system mainly consists of eight departments, which are the PBOC, the National Development and Reform Commission, the State-owned Assets Supervision and Administration Commission, the Ministry of Finance, the Ministry of Commerce, the China Banking Regulatory Commission (CBRC), China Securities Regulatory Commission (CSRC) and China Insurance Regulatory Commission (CIRC). They participate in financial policy formulation under the leadership of the state council. Among them, the PBOC is the central bank in China, mainly responsible for the implementation of monetary policy and maintenance of macro financial stability. CBRC, CSRC and CIRC, respectively, monitor the banking, securities and insurance sectors. The Ministry of Finance and other departments make the corresponding regulations in accordance with their responsibilities.

As noted, although the above eight departments are responsible for researching, formulating and implementing financial policy in China, the authority to make key decisions remains highly concentrated in the state council. For example, the independence of the central bank is not strong in the process of formulating and implementing monetary policy. For many key operations, such as the adjustments of interest and the reserve fund, the PBOC only can make suggestions, which will merely be promulgated and implemented after the approval of the state council.

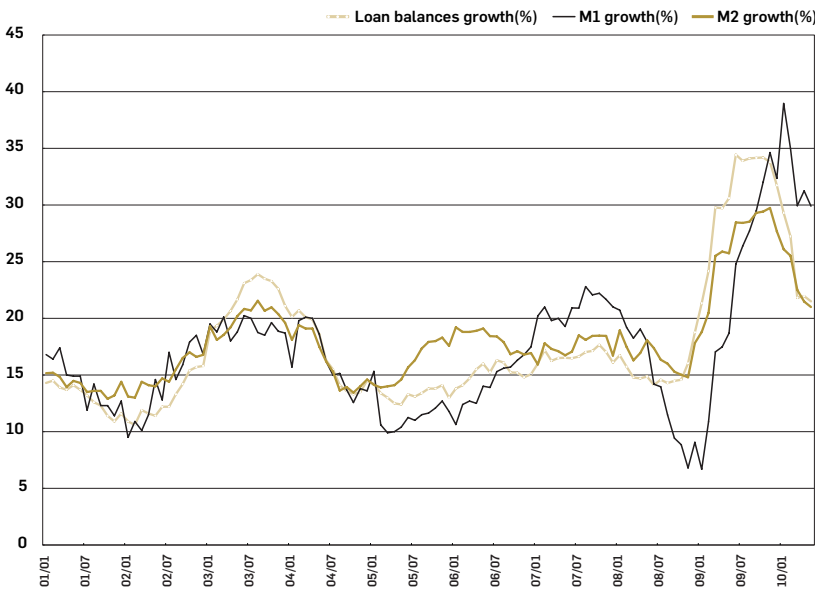
#### **4.2 The Formulation and Implementation of Monetary Policy**

In 1984, the central bank system in China was formally established, and the modern monetary policy began to form after the PBOC began specializing in the exercise of central bank functions. Since the 1990s, direct control in the formulation and

implementation processes of monetary policy has gradually narrowed, while indirect control has expanded. The ultimate goal of monetary policy was to “stabilize currency and thereby promote economic development.” The intermediate target of monetary policy and operational objectives shifted from loan size to money supply and base currency. The indirect control measures, such as deposit reserves, interest rates, central bank loans, discount, and open market operations have gradually been employed more frequently. Using various tools to manage the base currency (operating goals), China has built an indirect control system. Its ultimate goal is currency stability, and its intermediate target is the money supply.

In recent years, the establishment and improvement of an intermediate target for the monetary policy system has been an important indicator of reform of monetary policy in China, mainly manifested in the following aspects. The commercial bank credit limit was cancelled; China has established a monetary system with the intermediate goal of the operating target as a monetary base and the resulted target as monetary supply. China first publicized the money supply index in 1993 and took money supply M1 and M2 (broad money supply) as a monetary policy control target in 1996, which marked the formal introduction of an intermediate target for monetary policy. In 1998, the status of money supply as an intermediate target was further consolidated with the cancellation of credit control (Figure 27).

**Money supply growth in China: 2001-2009**



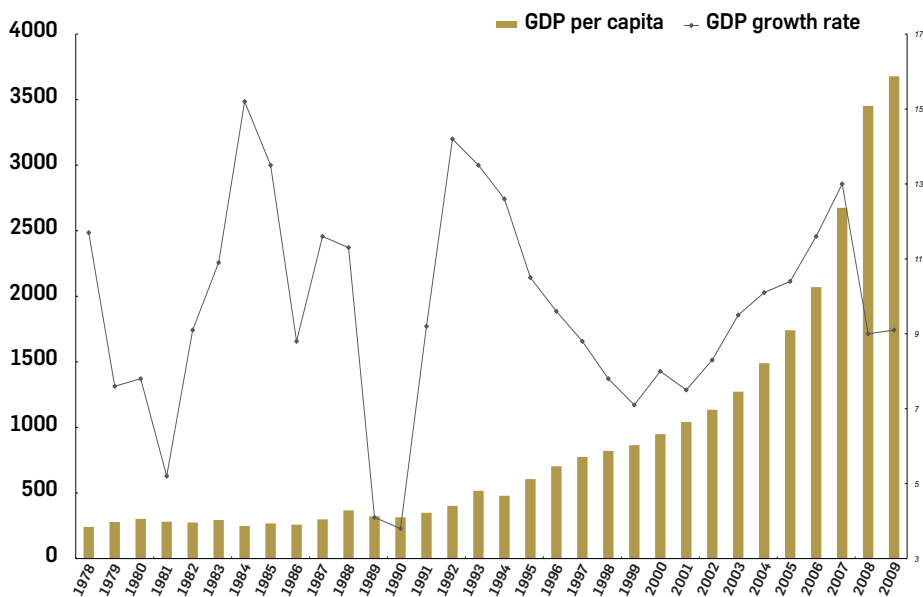
DATA SOURCES: WIND INFO



From the practice of China’s monetary policy in recent years, the main task of monetary policy is to ensure the target of dual stability in commodity prices and exchange rates in an environment of current and capital account surpluses. From the perspective of operations, to resolve problems derived from continuous inflows of foreign money, the PBOC mainly adopted the following method. It purchased foreign exchange constantly, following a certain exchange-rate policy framework; Moreover, it used various monetary policy instruments to reduce excessive money supply growth caused by the inflows of foreign money, keeping prices stable.

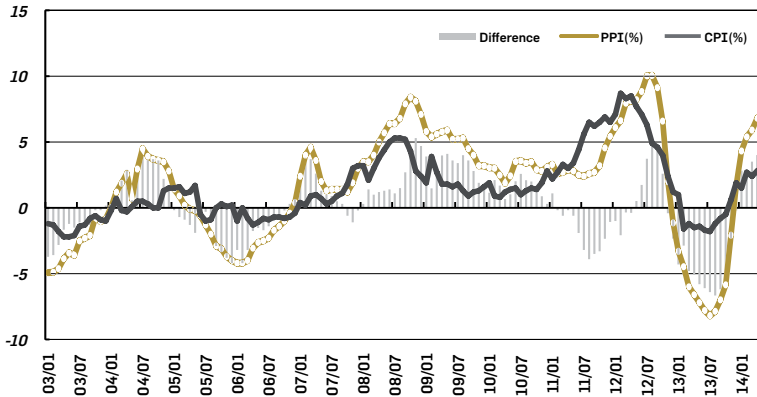
In terms of the targets of China’s monetary policy, price stability and economic growth are dual-core targets. In terms of the actual effect of monetary policy for promoting economic growth, China’s GDP remained at an average 10% growth over recent years. Even during the global financial crisis of 2008-2009, the Chinese economy still grew more than 9% (Figure 28). In terms of keeping prices stable, the inflation index based on the CPI and PPI were still controllable (Figure 29).

**GDP growth rate and per capita GDP of China: 1978-2009**



DATA SOURCES: CHINA’S STATISTICAL YEARBOOK, CHINA’S FINANCIAL YEARBOOK, WIND INFO

## The CPI and PPI in China: 1999-2009>

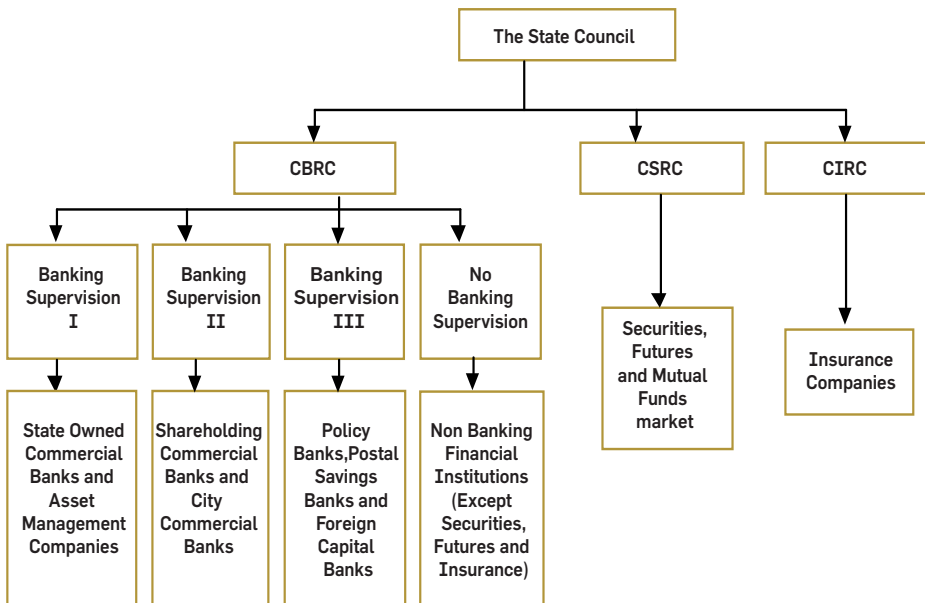


DATA SOURCES: WIND INFO

### 4.3 Decision-making and Financial Supervision System

From the perspective of the financial supervision system in China, the Chinese financial industry currently executes a management system of “segregated operation and segregated management.” In this system, securities companies are supervised by CSRC, insurance companies are supervised by CIRC, banks are supervised by CBRC, and the non-bank financial institutions other than securities companies and insurance companies are supervised by the non-bank-financial-institution supervision department in CBRC (figure 30).

### The segregated supervision system of financial industry in China

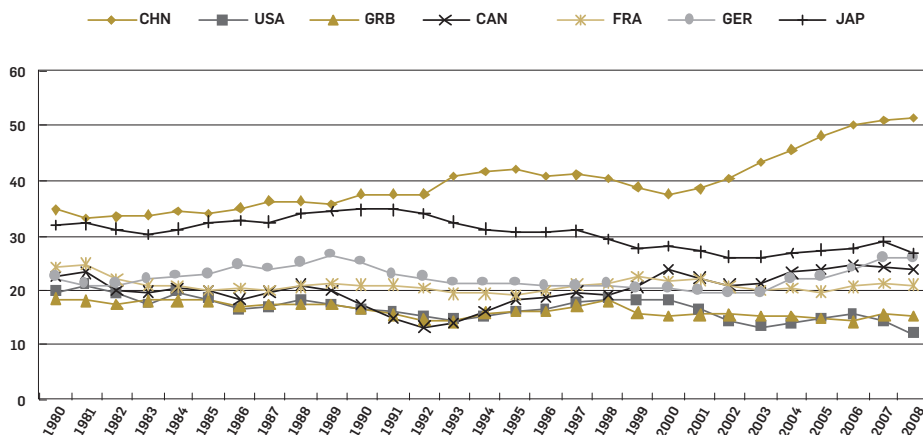


In recent years, China's prudent banking supervision framework has gradually matured and complied with international standards. A series of prudent supervision indexes, including capital level, capital quality, dynamic provision, liquidity risk, the large amount of risk exposure and concentration risk, became the basic standards in the bank risk management. Asset classification accuracy and provision standards have been substantially enhanced, and the notion of avoiding bankruptcy, having sufficient resources and a long-term commitment has become the important consensus for offering shareholdership of financial institutions. Also, indicators such as the loan-value ratio and debts-revenue ratio became important means to control the credit risk in specific domains (such as real estate). In the process of coping with the global financial crisis, the regulators in China carried out a simple, direct and strict supervision measure, hence playing a positive role in effectively preventing financial risks. The "fireproof construction" received positive attention from the government, and the assessment and exiting mechanism has been advanced in a test pilot for the mixed operations; also, deferment and deduction of compensation made the risk exposure and incentive mechanisms more linked in terms of managerial responsibility and tenor.



Before the economic transition of China, the central bank had various banking functions, but focused mainly on fiscal functions. In the central planning system, banks were passive recipients of deposits, and the lack of financial instruments often made deposits the only investment tool for residents. With the acceleration of market reform, a single banking system has gradually turned into a double-tiered system, in which commercial banks are separated from the central bank, but the separation never has a fundamental influence on the behavior of commercial banks. In terms of banking reform in a transitional economy, banks, from birth to reform, are not endogenous; they exist for the purpose of gathering savings for countries (See Zhang, 1998). In fact, since the 1990s, China has remained at very high savings rates (Figure 31), which is related not only to the special economic and social system in China but also to the need for high savings in the country. For a long time, the high savings rates and low real interest rates provided the main financial support for the investment-driven economic growth in China.

## The national saving rates of China and other countries



Note: All the data are ratios of domestic savings to GDP.

DATA SOURCES: DATA OF CHINA ARE FROM THE NATIONAL BUREAU OF STATISTICS, THE PBC, DATA OF OTHER COUNTRIES ARE FROM THE IMF DATA.

With the acceleration of Chinese economic development and opening, the financial system reforms were put on the agenda. These reforms were mainly observed at two levels, the “stock” level and “increment” level. At the stock level, commercial banks became independent business bodies through marketization reform, enhancing their self-development capabilities and international competitiveness. At the increment level, the multi-level financial market system with the stock market at the center was established; this gradually changed the previous monotonic financial system.

Undoubtedly, the development and reform of the Chinese financial system is a typical nationally dominant institutional transition process. On the one hand, the nationally dominant banking system reform, which was under fiscal pressure, emphasized the replacement of state-owned banks to the public finance and realized the transformation to market-oriented operations without altering the state-owned financial control rights. On the other hand, banking reform was progressive, bearing small resistance and low costs. The focus of the reform was outside the national banking system, i.e., to promote the development of other commercial banks outside the original state-owned property rights structure. It follows that a few financial intermediaries came into being that could negotiate with national banks. To some extent, financial reform also promoted the development of endogenous financial markets and institutions.

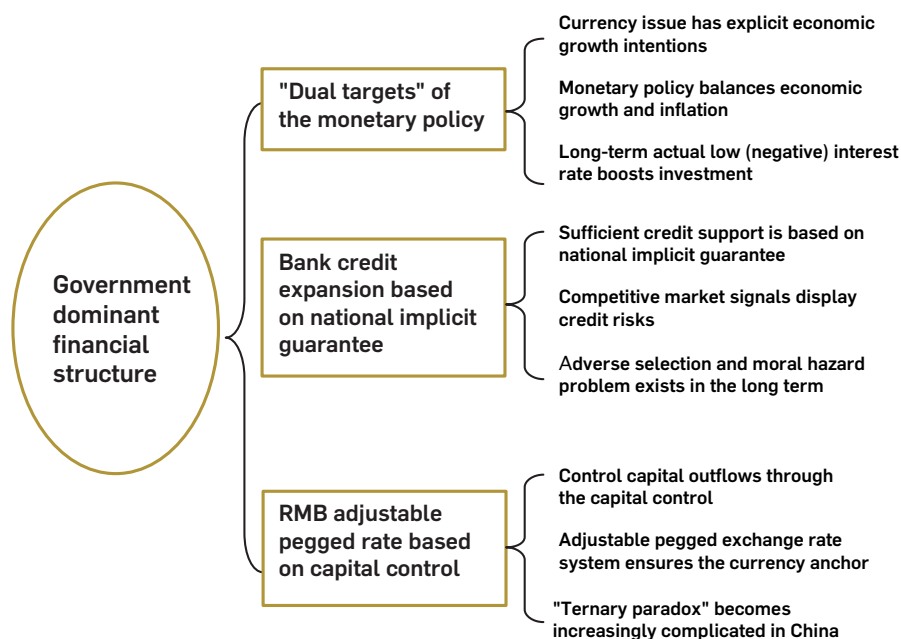
To understand the nationally dominant progressive financial reform in China, it is very important to know that the country needs to control the macro financial risk

in the process of reform and opening. Considering the radical reforms and financial liberalization in Latin America, East Asia and other developing countries, China has persistently held a prudent view to financial opening and has endeavored to avoid the problems that result from excessive financial liberalization. For strategic decision-makers in China, the propulsion of economic reform must consider social stability as the premise, and the financial reform's advancement must consider economic stability as the prerequisite. Following the guiding ideology of "stability above all," China accumulated massive national capital, and the high foreign exchange reserves would also be considered an important way to resist various external shocks. Retaining relatively high foreign exchange reserves is a significant strategy to ensure macro financial stability in China. This affected China's ability to maintain financial stability during the special periods, such as the financial crisis, not just for the need of international payments.

Overall, through constructing a double-tiered banking system of "central bank and state-owned commercial banks" and promoting the gradual reform of the foreign exchange administration system and financial opening, China finally formed a government-dominant financial structure, called "three carriages," including three aspects. The first aspect is monetary policy, which needs to balance inflation control and economic growth. The second aspect is bank credit expansion based on the implicit guarantee of the country. The third aspect is an adjustable pegged RMB exchange rate based on capital controls (Figure 32). For quite a long time, particularly in the process of China's progressive transition, the above-mentioned government-dominant financial structure provided sufficient credit support for the marketization of enterprises at the micro level, and effectively achieved the balance between the economic growth and inflation at the macro level. However, in the further development of financial marketization and financial opening in China, the "three carriages" (the government dominant financial structure) also faced some latent problems.

The first problem is that monetary policy lacks independence, i.e., economic growth often becomes the main target of monetary policy. Thus, excessive money issuance and long-term negative real interest rates might lead to price bubbles and hyperinflation in the future. The second problem is that the national implicit guarantee and state-owned bank-dominant credit expansion generally produced adverse selection and moral hazard problems, thus the distortion of the incentive mechanism may lead to low efficiency of enterprises performance. The third problem is that the central bank's monetary policy faced increasing difficulties in choosing between price stability and exchange rate stability during the continuous influx of foreign money. Therefore, the classical "ternary paradox" tends to be a prominent problem in China's future market opening process.

## The government dominant financial structure and characteristics



After the most recent global financial crisis, many scholars and social practitioners began talking about the “China mode” of economic development. In the last 30 years, Chinese economic growth has made three core achievements. The first achievement is to successfully introduce a modern market economy system, and the vigor released by changing the old system was the fundamental motive of economic growth over the past 30 years in China. The second aspect is to take full advantage of the three comparative advantages of resources, including labor, land and market, which helped to accumulate important initial economic resources in China over the past 30 years. The third aspect is to insist on a model of progressive reform, which made economic reform incorporate constant innovations and corrections, reducing the overall risk of reform to a great extent. It is fair to say that the 30 years of reform and opening is the macro background for financial development in China.

China is a typical emerging-market country, thus there must be many tradeoffs between government intervention and market forces during the transition process from a planned to a market economy. The experience from China shows that powerful government intervention can overcome the deficiency of the markets to some extent in the early phase of economic development, mobilizing social resources through “gov-

ernment as an alternative.” Mandatory institutional changes help develop the framework of a market economy system rapidly. This “strong government -- weak market” combination demonstrated a certain comparative advantage during the early phase of economic development in China.

The economic system of “government as an alternative” inevitably resulted in the government dominant financial structure and institutions. During the several decades before financial reform in China, the country controlled all of the financial resources such that the prerequisites for market competition did not exist. This high national financial monopoly not only led to the low efficiency of bank operations and increased the risk of financial system but also suppressed financialization and financial innovation. Since the 1990s, particularly after the access to the WTO in 2002, along with the deepening of economic system reform and acceleration of the financial reform and opening, the quantity of financial institutions increased rapidly, and the monopoly position of state-owned banks was gradually broken. Therefore, the financial market developed rapidly; moreover, the multi-layered and diversified financial system was also formed gradually. At present, the financial reform of China has achieved great progress, mainly manifested in the following aspects. In terms of financial institution reform, four state-owned commercial banks completed shareholding reform and successfully listed on different stock exchanges, and the commercialized financial intermediary system has enjoyed a fairly large capacity. In terms of financial market reform, as non-tradable share reform was completed, the stock market institutions were improved, and the financing function was further promoted. In terms of financial supervision, the segregated supervision system, constituting the central bank and three regulatory commissions, was mainly established. Also, the regulatory law and system gradually improved, consistent with the international market. Moreover, the effectiveness of financial supervision was remarkably improved. After 20 years of reform, financial openness of China gradually strengthened, and the interest rate marketization also made a lot of progress. Most interest rates have realized marketization except that there still exists the floor of loan interest rates and the ceiling of deposit interest rates.

Undoubtedly, the direction of financial marketization reform in China has been clearly set, and the expansion of the financial industry has also become an irreversible long-term trend. During the next phase of financial reform, the following aspects will become key topics. The first aspect is to further improve the corporate governance mechanism of financial institutions (especially state-owned commercial banks), improve its abilities for business expansion and financial innovation, and steadily advance mixed operation. The second aspect is to strengthen the institutional construction of financial markets (especially the stock market), reinforce information disclosure, repress internal transactions and improve the efficiency of the market. The third aspect is to integrate regulatory resources, improve supervision measures, com-

bine the macro and micro prudent views and establish the overall financial stability framework. The fourth aspect is to gradually advance interest rate liberalization, exchange rate marketization and capital account opening, based on a progressive approach as well as to improve the openness of financial system based on the macro-economic stability.

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