Non-Performing Loan of China's Banking System

Huang Bihong

I. Introduction

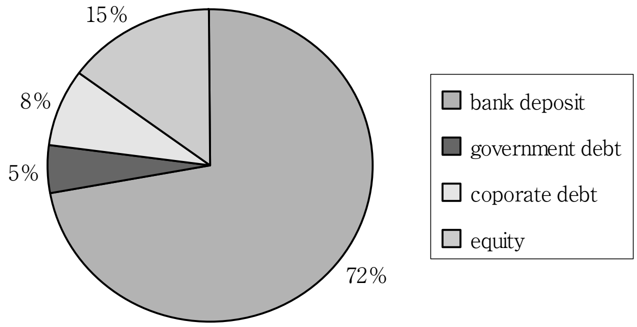
Despite the phenomenal economic growth averaged 9 percent per year, China has one of the largest non-performing loans (NPLs) in the world. According to the China Banking Regulatory Commission (CBRC), China's banking sector carries the NPLs of RMB 1,282.72 billion as of June 30, 2006, representing 7.53 percent of total loans. Of this daunting amount of NPLs, RMB 1,055.76 billion is with state-owned commercial banks (SOCBs), which accounts for 9.47 percent of total loans of SOCBs. This NPL figure does not include about RMB 396.36 billion of NPLs remaining on the balance sheet of four asset management corporations (AMCs), which were established in 1999 as decentralized vehicles to manage and dispose of NPLs they had purchased from the four state-owned commercial banks (SOCBs). Reforming the SOCBs is a top priority for the Chinese government. Among the reforms being implemented, NPL disposition is the primary task.

This paper is aimed to describe the evolution of NPLs and analyze the root causes of NPLs in China. The rest of the paper is organized as: section II outlines the features of China's banking system; section III describes the evolution as well as the current status of China's NPLs; section IV analyzes the sources of NPLs; section V discusses the new challenges China's banking sector facing in terms of NPLs and section VI concludes.

II. China's Banking System

The most phenomenal feature of China's financial system is the dominance of its banking system. As indicated in Figure 1, around 75 percent of the capital of China's economy is intermediated through banks in 2004, while in developed economies and emerging markets the share of bank deposits ranges only from around 20 percent to 50 percent. The banks play an even larger role in facilitating flow of funds. They garner the bulk of household savings and provided 95 percent of corporate funding.

Figure 1 China's Financial Stock Component, 2004



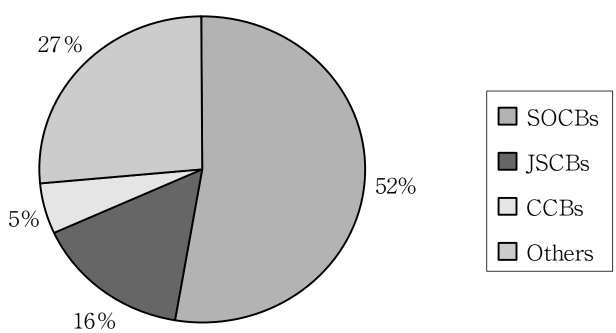
Source: Mckinsey Global Institute, Global Financial Stock Database

The size of China's banking system is enormous with the assets equivalent to 160 percent of GDP at the end of 2004, which is disproportionally distributed among policy banks, state-owned commercial banks (SOCBs), joint stock commercial banks (JSCBs), city commercial banks (CCBs), rural commercial banks, urban credit cooperatives (UCCs), rural credit cooperatives (RCCs), postal savings, foreign banks and non-bank financial institutions (NBFIs).

State-Owned Commercial Banks

As indicated in Figure 2, state-owned commercial banks are in a dominant position in China's banking system, which account for 52 percent of the total asset. The "Big Four" dominant state-owned commercial banks are: Industrial and Commercial Bank of China (ICBC), Agricultural Bank of China (ABC), Bank of China (BOC) and China Construction Bank (CCB). They were transformed from state specialized banks into commercial entities during the 1994 banking reform which aimed to create a more unified and efficient banking system. Under the new system, each SOCB is held accountable for

Figure 2 Assets Distribution of Banking Institutions, 2005[1]



Source: China Banking Regulatory Commission, 2005

[1] "others" include policy banks, rural commercial banks, foreign banks, UCCs, RCCs, finance companies, trust and investment companies, financial leasing companies and postal savings.

its profitability. They have direct reporting responsibility to the State Council. The history and current status of each of the SOCBs are briefly described below:

Industrial and Commercial Bank of China (ICBC)

ICBC was established in 1984 to manage short-term industrial and commercial credit, including the granting of loans for working capital. ICBC is approved to accept deposits and remittances, make loans, and conduct foreign exchange transactions such as trade finance and guarantees. After 22 years of development, ICBC has ranked first in China's banking system for many indexes such as total assets, total capital, core capital and operating profit, etc. Moreover, ICBC is China's biggest lender and has the second largest face value of NPLs. In October, 2005, ICBC was officially transformed from a state-owned commercial bank into a share holding company and renamed as Industrial and Commercial Bank of China Limited. At the end of June 2005, the general assets of ICBC amounted to RMB 6.14 trillion, the balance of deposits was RMB 5.3858 trillion, and loans balance exceeded RMB 3.1122 trillion. In 2004, ICBC domestic and overseas branches produced a profit of RMB 74.6 billion[2].

China Construction Bank (CCB)

CCB is derived from the People's Construction Bank of China which was founded in 1954 as a wholly state-owned bank under the direction of the Ministry of Finance of the PRC to administer and disburse government funds for construction and infrastructure related projects under the state economic plan. In 1979, the People's Construction Bank of China became a financial institution under the direction of the State Council and gradually assumed more commercial banking functions. The People's Construction Bank of China gradually became a full service commercial bank following the establishment of China Development Bank in 1994 to assume its policy lending functions. In 1996, the People's Construction Bank of China changed its name to China Construction Bank. CCB was responsible for administering state investment and providing loans for capital construction. CCB also conducts foreign exchange transactions, markets overseas investments, and issues bonds. China Construction Bank Corporation was formed as a joint-stock commercial bank in September 2004. The share of CCB began trading on the Hong Kong Stock Exchange on 27 October 2005. As of June 30, 2005, the total assets of CCB amounted to RMB 4,224.1 billion, the total loans amounted to RMB 2,374.4 billion and the total deposits amounted to RMB 3,781.3 billion[3]. CCB has the smallest outstanding loan balance and NPLS ratio among the four state-owned commercial banks.

[2] Data source: website of Industrial and Commercial Bank of China, www.icbc.com.cn

[3] Data source: website of China Construction Bank, www.ccb.com.cn

Bank of China (BOC)

Before the bank reform of 1994, BOC is China's primary foreign exchange bank and functions as the overseas agent of China's central bank—People's Bank of China (PBoC). BOC handles international accounts and deposits, foreign exchange, international syndicated loans, and other services such as trust, investment, leasing, and business consultancy. After reform, BOC was converted into a wholly state-owned commercial bank. On August 26, 2004, Bank of China Limited was formally incorporated in Beijing as a state-controlled joint stock commercial bank. By the end of 2005, the total assets of BOC amounted to RMB 4,742.8 billion, the total loans amounted to RMB 2,151.9 billion, and the total deposits amounted to RMB 3,703.8[4].

Agricultural Bank of China (ABC)

Founded in 1979, ABC serves as the primary lender to the agricultural sector and is responsible for examining and approving state funds to support the agricultural industry. Additionally, ABC purchases agricultural products for the State and supervises the rural credit cooperatives. By the end of 2004, the total assets of ABC reached RMB 4,013.77 billion, the total loans was RMB 2,590.07 billion, the total deposits was RMB 3,491.55 billion and the total operation profit of the whole year was RMB 31.97 billion[5]. ABC seems to have been the most "conservative" of the four SOCBs. Due to its agricultural based lending practices, among the four SOCBs, ABC has the largest balance of NPLs.

Besides the enormous size of SOCBs in terms of assets, the four SOCBs control about 70 percent of China's banking market and have generated around 80 percent of total non-performing loans (NPLs) in China's banking system. In addition to the huge amount of NPLS, compared with international banks, Chinese banks exhibit weaknesses in the economies of scale, productivity and profitability, risk management skills, international network, services, modern banking products, technologies, staff quality and incentives, and corporate governance, etc. On the other hand they show strengths with their huge domestic network, long-established customer relationships, sound understanding of China markets, support from the government, and cultural recognition from domestic people, as well as high liquidity.

Joint Stock Commercial Banks

In order to promote competition among banking institutions and hence to improve efficiency, Chinese government set up a passel of Joint Stock Commercial Banks during the period from 1984

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[4] Data source: website of Bank of China, www.boc.cn

[5] Data source: website of Agricultural Bank of China, www.abchina.com

to 1993. Bank of Communications, China Merchants Bank, CITIC Industrial Bank, Guangdong Development Bank, Industrial Bank, Shenzhen Development Bank, etc. were established between 1987 and 1988. After 1992, another batch of JSCBs were established, including Everbright Bank of China, Huaxia Bank, Shanghai Pudong Development Bank, China Minsheng Banking Co., and so on. At present, there are totally 12 JSCBs in China, which accounts for 16 percent of assets of the whole banking system. As of May, 2004, the total assets of JSCBs amounted to RMB 4,410 billion, the total loan was RMB 2,790 billion and the total deposit was RMB 3,790 billion. Most of JSCBs are partly state owned. For some JSCBS, the central government or the respective provincial or municipal governments still hold a controlling stake. The share of some JSCBs has been traded on the stock exchange, including the Shanghai Pudong Development Bank, the Minsheng Bank, the China Merchants Bank, and the Shenzhen Development Bank, and so on.

Policy Banks

Since the banking reforms of the mid-1980s, the People's Bank of China (PBOC) has been turned step-by-step into a central bank. Three policy banks have been established to take over the job of policy lending from the four state-owned banks. They are: China Development Bank (CDB), Export and Import Bank of China (Chexim), and Agricultural Development Bank of China (ADBC). These three policy banks, with mandates from the national government, use their capital to support infrastructure construction, develop basic and mainstay industries, release bottlenecks, and adjust industrial and local economic structures. After the 1994 bank reforms, they started to issue Policy F-bonds to commercial banks and other non-bank financial institutions.

Other Banking Institutions

In order to provide financial support to the local small and medium-sized enterprises and private economies, Chinese local governments established a lot of urban credit cooperatives since 1979. In the 1990s, urban credit cooperatives were gradually transformed into city commercial banks (CCBs). As of September 2004, Chinese banking system includes 4 SOCBs, 3 policy banks, 12 JSCBs, 4 asset management companies, 111 city commercial banks, 723 urban credit cooperatives, 33,965 rural credit cooperatives, 4 rural commercial banks, 10 rural credit cooperatives, 199 foreign banks, 59 trust & investment companies, 75 financial companies, 12 finance lease companies, 4 auto financing companies and thousands of postal savings.

With such a large banking system, China has a relatively high level of financial system depth, which measures the degree to which funding in a nation's economy is intermediated through formal financial system. China's financial depth grew significantly from 117 percent of GDP in 1994 to 221 percent of GDP[6] in 2004.

III. Evolution of Non-performing Loan in China

Classification of NPLs

Chinese Banks traditionally adopt the 4-category system to classify loans as pass, past-due, idle and loss. As of 2004, China's wholly state-owned commercial banks (SOCBs) and joint shareholding commercial banks (JSCBs) started to adopt the international 5-category loan classification system. The 5-category system categorizes bank loans according to their inherent risks as pass, special-mention, substandard, doubtful and loss. "Pass" indicates that borrowers are able to honor the terms of the contracts and there is no reason to doubt their ability to repay the principal and interest of loans in full and in a timely manner. "Special-mention" means that borrowers are able to serve their loans currently, although repayment may be adversely affected by specific factors. "Substandard" means that borrowers' abilities to serve their loans are in question. Borrowers cannot depend on their normal business revenues to pay back the principal and interest so losses may ensue, even when guarantees are invoked. "Doubtful" indicates that borrowers cannot pay back the principal and interest in full and significant losses will be incurred, even when guarantees are invoked. "Loss" means that the principal and interest of loans cannot be recovered or only a small portion can be recovered after taking all possible measures and resorting to necessary legal procedures.

The difference between the two systems seems to be that more subjective judgment is involved in the internationally applied 5-category system than in China's 4-category system, which points to a more prudent and forward-looking approach for international banks than for Chinese banks. The difference as to the definition of NPLs between the two systems lies in that in the 4-category system the loans overdue on principal payment for 1 day are classified as non-performing, while in the 5-category system the non-performing relates to the interest payment, but with an allowance for 90 days. The latter also involves credit officer's judgement of borrower's financial position. So the two definitions do not seem to match with each other, and thus it is difficult to compare the sizes of the NPLs measured under the two systems. While it seems to be a common belief that the NPLs size with China's definition is less than that with international definition, how much it is less is difficult to estimate.

Evolution of NPLs in China

Since almost all of NPLs is generated by SOCBs, the discussion below focuses on NPLs of

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[6] Mckinsey Global Institute (2006).

SOCBs. As Chinese government never officially published the size of NPLs before 2003, we could only use the data estimated by previous literatures.

The evolution of NPLs in China since 1978 could be divided into five stages.

Stage I: 1978-1983

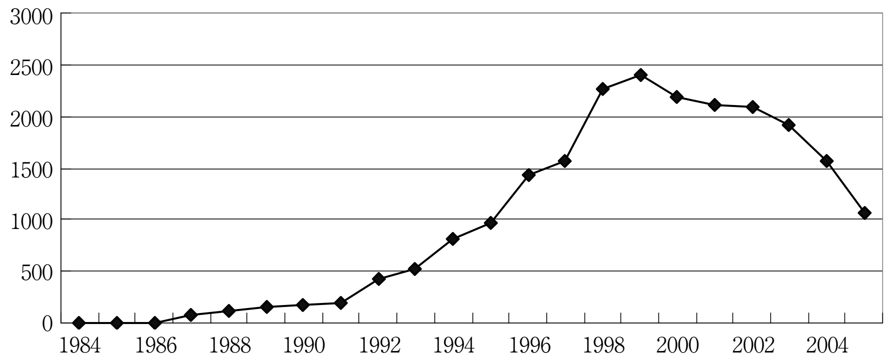
There was almost no NPLs at this stage. Although Chinese economic reform started in 1978, it is at the early stage and the main characteristic of the economy is still the traditional planned economy. Under the planned economy, state-owned enterprises (SOEs) accounts for a very large share in the whole economy. Almost all capitals including circulating capital and fixed asset investment needed by SOEs were supplied by fiscal appropriation, which is intermediated through banks. The finance department appropriated a fixed amount of circulating capital to the SOES each year. The fixed assets investment of SOEs was also controlled by the government. There were actually no commercial banks at this stage. The role played by the banks is the treasurer of the Ministry of Finance. SOEs never applied for the loan unless the circulating capital they needed exceed the amount appropriated by the government. Hence, the size of bank credit was very small. The total loan to the industrial enterprises was only RMB 48.7 billion in

Table 1 NPLs of Stated-owned Commercial Banks Between 1985 and 2005

	Loan (RMB billion)	NPLs (RMB billion)	NPL/GDP (%)	NPL/Loan (%)
1984	476.61	0.203	0.03	0.04
1985	590.56	1.286	0.14	0.21
1986	759.08	9.027	0.88	1.19
1987	903.25	85	7.11	9.41
1988	1055.13	111	7.44	10.52
1989	1240.93	156	9.23	12.57
1990	1516.64	174	9.38	11.47
1991	1804.41	186.2	8.61	10.31
1992	2161.56	421.62	15.83	19.51
1993	2646.11	515.56	14.89	19.48
1994	3244.13	819.3	17.52	25.25
1995	3939.34	968.34	16.56	24.58
1996	4743.437	1427.2	21.02	30.08
1997	5931.75	1571.35	21.10	26.50
1998	6844.21	2262	28.87	33.05
1999	7369.58	2400	29.24	32.56
2000	7233.3	2185.2	24.42	30.21
2001	7500.7	2115.2	21.74	28.2
2002	7966.8	2088.1	21.38	26.21
2003	9414.5	1916.8	18.23	20.36
2004	10116.25	1575.1	9.85	15.57
2005	10223.83	1072.48	5.88	10.49

Source: Zhao Yi (2001)
Liu Mingkang's talk on May 29, 2003
China Banking Regulatory Commission, www.cbrc.gov.cn
China Statistical Year Book, www.stat.gov.cn

Figure 3 Evolution of NPL in SOCBs (RMB billion)



1981, RMB 52.7 billion in 1982, and RMB 59.7 billion in 1983. Accordingly, the amount of NPLs is also negligible during this period.

Stage II: 1984-1991

During this stage, NPLs started to rise. The amount of NPLs increased from RMB 0.203 billion in 1984 to RMB 186.2 billion in 1991 while the ratio of NPLs to total loan rapidly increased from 0.04 percent in 1984 to 10.31 percent in 1991.

As the economic reform progressed, the share of market economy began to increase. The private companies could only get the capital through banking credit, instead of "fiscal appropriation". In order to improve the efficiencies of SOEs, Chinese government started to reform SOEs. One of the most important measures of reform is to change the way SOEs obtaining capital. All of the circulating capital and a large amount of fixed capital used by SOEs were financed through bank loaning, instead of fiscal appropriation. The additional fiscal appropriation for circulating capital in enterprises was RMB 6.66 billion in 1978 and it declined to RMB 0.996 billion in 1984[7]. Since the state-owned banks are not independent commercial banks at this stage, it was forced to assume the function of finance department to give financial support to SOEs. The reform of SOEs at this stage actually transformed the fiscal burden of the government into the credit burden of the state-owned banks. Consequently, nonperforming loan occurred, although its size was relatively small. This is the fundamental source of NPLs in sate-owned banks.

Stage III: 1992-1998

At this stage, the growth of NPLs speeded up. The amount of NPLs increased more than five times from RMB 421.62 billion in 1992 to RMB 2,262 billion in 1998 while the ratio of NPLs to total

[7] Data source: China Statistical Yearbook, web of National Bureau of Statistics of China, www.stats.gov.cn

loan rapidly rose from 19 percent in 1992 to 33 percent in 1998.

Overheating of the economy and bankruptcy of some SOEs are the leading factors that results in the fast growth of NPL at this stage. Chinese economy experienced an unprecedented overheating since 1992. Economic growth rates were as high as 14.1%, 13.1% and 12.6% respectively in 1992, 1993 and 1994. The growth rates of total investment in fixed assets were 44.4%, 61.8%, and 30.4% in these three years. Domestic credit grew at the rate of 30% per year between 1991 and 1995, a rate significantly higher than the average growth rate of 21.3% in the 1980s. As a result of the overheating, consumer price soared to 14%, 24.1% and 17.1% in 1993, 1994 and 1995 respectively[8]. Economic overheating in 1992/93 was partly caused by industrial bottlenecks and inflation, and partly by investments being channeled to low-productivity or unrelated projects, such as luxurious real estate development and stock market speculation. Speculations were so serious that "hot money" largely flowed into real estate market. Due to the overheating of economy and the lack of efficient financial supervision, a great deal of banking loans was invested in real estate and stock market. In order to cool off the economy, the "moderately restrictive policy" was introduced and 16-point Austerity Plan was released to control money supply and investment on July 3, 1993. Domestic loans increased by 48% in 1992, but declined to 8.9% in 1996, and 4.5% in 1997. The growth rates of total investment in fixed assets fell to 17.5%, 14.8% and 8.8% in 1995, 1996 and 1997 respectively[9]. As result, Chinese economy realized "soft landing" well before the Asian financial crisis broke in 1997. However, the stock price and real estate price fell down sharply during this process. A large quantity of bank credit formed during this period hence became NPLs. It is estimated that the NPLs generated due to the economic overheating of 1992/93 is over RMB 200 billion[10].

In the transition from planned economy to market economy, the competitiveness of SOEs declined comparing with private enterprises. A lot of SOEs were bankrupt or at the verge of bankruptcy during this stage and could not pay the loan to the bank. This resulted in more than RMB 300 billion of NPL. Such a large amount of NPL is caused by four factors. First, the bankrupt or nearly bankrupt SOEs use the banking loan to pay the social security benefit to the employees, which accounts for around one third of the of NPLs. Second, the government used bank loan to save those SOEs at the verge of bankruptcy, which also accounts for around one third of the NPLs. Third, the bankruptcy of SOEs generated around one sixth of the NPLs. Forth, the stated-owned banks themselves made the rest one sixth of NPLs due to the lack of risk management skills.

[8] Data source: China Statistical Yearbook

[9] Data source: China Statistical Yearbook

[10] Data source: Zhao Yi (2001)

Stage IV: 1999-now:

Due to a series of aggressive banking reform measures taken by Chinese government, both the amount and the ratio of NPLs of SOCBs started to decline at this stage. The amount of NPLs decreased from RMB 2,400 billion in 1999 to RMB 1,072.48 billion in 2005 and the ratio of NPLs declined sharply from 32.56% in 1999 to 10.49% in 2005.

The daunting amount of NPLs has made SOCBs operate at very high risk and actually be technically insolvent, as their nonperforming loans far exceed their equity. These institutions are still highly liquid only because the large retail deposit base continues to expand as a result of a robust economy and thrifty consumers whose savings equal to 40 percent of China's GDP. As the promise Chinese government made at the entry to WTO in December 2001, China committed to open up its domestic banking sector to full-fledged competition from foreign banks at the end of 2006. At that time, foreign banks will be able to open their own branches, take RMB deposits, and pretty much have full access to the mainland's tremendous volume of household savings. The emergence of foreign banks will challenge the local banks from a business perspective and will intensify demands for market regulation, emphasis on corporate governance, prevention of corruption, and increased transparency. This transition heightened the need for a speedy resolution of the pervasive NPL problem in the financial sector. Moreover, after the Asian financial crisis, great attention has been given to the non-performing loans of financial institutions. Therefore, resolving the NPL issue has become the primary objective of China's banking reforms.

Since 1998, the Chinese government has carried out a variety of measures to reduce the NPL burden. These included the direct recapitalization of the SOCBs as well as the transfer of NPLs from the banks to AMCs that focus exclusively on the collection and resolution of the NPLs.

In 1998, the central government issued special treasury bonds having a worth of RMB 270 billion to replenish the big four lenders' capital base and hence to increase their capital adequacy ratio.

In 1999, the four Asset Management Companies (Huarong, Orient, Cinda and Great Wall) were established to take over and dispose RMB 1.4 trillion (US$168 billion) worth of NPLs from the four SOCBs within ten years from their establishment. Each of the four AMCs pairs up with one of these big four banks in China, i.e. Cinda with CCB, Huarong with ICBC, Orient with BOC, and Great Wall with ABC. The loans transferred to AMCs were primarily "substandard" or "doubtful" loans (under the old 4-category classification mechanism) made prior to 1996 and overdue for more than one year by the end of 1998. The AMCs purchased the NPLs at book value. The recovery value of the NPLs will surely be below the full book value that the AMCs paid for the assets.

In 2003, China Banking Regulatory Commission (CBRC) was founded. The main functions of the CBRC is to formulate supervisory rules and regulations governing the banking institutions; authorize the establishment, changes, termination and business scope of the banking institutions; conduct on-site examination and off-site surveillance of the banking institutions, and take enforcement actions against rule-breaking behaviors; conduct fit-and-proper tests on the senior managerial personnel of the banking institutions; provide proposals on the resolution of problem deposit-taking institutions; and be responsible for the administration of the supervisory boards of the major State-owned banking institutions. CBRC is pushing the banks to reform faster. These reforms have had positive results, including: increased provisioning, broader NPL resolution strategies and improved credit risk management policies. After the establishment of CBRC, the PBoC is responsible only for monetary policy and the payments system, just like central banks in most developed countries.

In 2003, the government injected a foreign exchange reserve worthy of RMB 370 billion (US$45 billion) into CCB and BOC, both slated for public offerings. Central Huijing Investment Company was founded to manage this part of capital, which is owned by China's central government and administrated through the Ministry of Finance. Through capital injection, Central Huijing Investment Company has become the major shareholder of the SOCBs. The fund injected by Huijing helped to resolve non-performing loans made to state-owned and quasi-state-owned enterprises and to provincial development projects.

In 2004, Cinda AMC won the auction to purchase RMB 278.7 billion ($34 billion) NPLs from BOC and CCB, at 50% of book value. The ultimate recovery rate of 33 cents on the dollar for the loans is required by year-end 2005. In the same year, Cinda AMC bought RMB 41.4 billion ($5 billion) of NPLs from Bank of Communications at a 50% discount, funded entirely by a loan from PBOC. Cinda has promised ultimate recovery of 30% to 40% of face value.

In August and September 2004, Bank of China and China Construction Bank was formally incorporated as a state-controlled joint stock commercial banks respectively. Bank of China was transformed into a stock limited company sponsored by Central Huijin Investment Co, and China Construction Bank was split into China Construction Bank Corp. and China Jianyin Investment Ltd. In April 2005, Central Huijing Investment Company injected a foreign exchange reserve of US$15billion into ICBC and ICBC was officially transformed into a share holding company in October that year.

In October 2005, China Construction Bank made a $9.2 billion initial public offering (IPO) on the Hong Kong Stock Exchange, which is the world's biggest IPO that year.

On June 1, 2006, Bank of China raised $9.7 billion through the sale of almost 25.57 billion shares after pricing its initial public offering (IPO) in Hong Kong Stock Exchange. This is the world's biggest stock offering since 2000.

ICBC launched the world's biggest dual initial public offering of US$21.9 billion in Hong Kong and Shanghai stock markets in October 2006, which smashed the previous record, a US$18.4 billion IPO by Japanese mobile phone company NTT DoCoMo Inc. in 1998.

Although the investment in China's SOCBs might be risky due to the large NPLs and bad management, the success of their IPO is mainly due to the high growth rate of Chinese economy, the large network of branches and the huge customer base of 1.3 billion people.

NPL Disposal by AMCs

The establishment of China's four AMCs represents the most aggressive attempt so far by the Chinese government to improve the SOCBs' asset problems. Although these AMCs are tasked with receiving, managing, and disposing of NPLs transferred directly from their affiliated, "parent" SOCBs, they are wholly-owned by the central government and not by the Bank.

The recovery methods adopted by the Chinese AMCs include debt-for-equity swap, restructuring of debt terms, debt collection, sale or lease of real property, direct sales of packaged or individual NPLs, and securitizations. The banks themselves have also applied some of these measures to resolve their NPL portfolios, although they face much tougher regulatory restrictions, such as prohibition from selling loans below book value.

The debt-for-equity swap program was implemented in 1999 for large and medium-sized SOEs which is deemed having growth opportunities. This action wiped out the debt obligation of a SOE to its bank and substituted it with the equity ownership of the AMCs that took over the NPLs in question from the bank. At the same time, the NPLs at the Big Four were replaced with long-term bonds of the AMCs that paid a nice rate of interest and were effectively guaranteed by the government. AMCs would then be entitled to dividends and subsequent share repurchase from the SOEs at agreed-upon prices within ten years (Fung and Ma 2002), should the latter ever become profitable. Furthermore, local governments were often required to guarantee that the AMCs get first priority in exiting their equity stake through public listings or a change of control event. In addition to the AMCs, the banks themselves have also converted some of the NPLs into equity, although the exact amount is unclear.

To date, around 580 SOEs converted more than RMB 400 billion of debt into equity rights held by the AMCs. The short-term result of the program appears impressive. The SOEs' average indebtedness decreased from 73 percent in 1999 to 50 percent of total capital in 2000, and 80 percent of the companies turned to be profitable during the year (Ye and Zhai 2001). However, these figures were largely a result of the pure conversion of debt to equity and the termination of interest payments. The new equity stakes that the AMC inherited could remain worthless under

Table 2 Disposal of Non-Performing Assets at China's AMCs, June 30, 2006

(RMB in Billions)

	Total	Cinda	Great Wall	Huarong	Orient
NPAs Purchased	1262.7	319.63	338.01	352.02	252.97
Accumulated Disposal	866.34	206.77	270.78	246.8	141.99
Cash Recovered	180.56	65.26	27.83	54.66	32.81
Disposal Ratio	68.61%	64.69%	80.11%	70.11%	56.13%
Asset Recovery Ratio	24.20%	34.46%	12.70%	26.50%	27.16%
Cash Recovery Ratio	20.84%	31.56%	10.28%	22.15%	23.11%

Source: China Banking Regulatory Commission

a new capital structure, if it is not accompanied by an improvement in the fundamentals of the SOEs. Therefore, the government will ultimately have to take a loss equal to a large fraction of the face value of the NPLs held by the AMCs.

At the time of their establishments in 1999, the AMCs received RMB1,394 billion (US$168 billion) NPLs. The year 2000 was focused on organizational issues and debt to equity swaps. AMCs started to resolve NPLs from 2001. However, inexperience in this area and the lack of a vibrant venture-fund industry that specializes in buying distressed assets make the progress quite slow. In 2001, their first full year of operations, the AMCs resolved NPLs totaling RMB 124.5 billion. In 2002, they resolved RMB141.7 billion. Until the end of first quarter of 2006, they collectively disposed of RMB 866.34 billion, or about 70 percent of the total NPLs they acquired. It is required that the AMCs complete their missions by 2009. Further, the AMCs' cash recovery rate of only 20.84 percent, or recovery of RMB 180.56 billion to date, was insufficient to serve the interest on the bonds they had issued and the loans they had acquired from PBOC in 1999 to fund the initial transfer of NPLs. The AMC's total interest obligation is estimated to be about RMB 30 billion annually for five years, or a total of RMB 150 billion. Should NPL resolution continue at the current speed, the AMC could face considerable cash flow pressure.

As evidenced in Table 2, Great Wall AMC's cash recovery ratio of 10.28 percent was among the lowest of the group. This was due to the low quality loans it took over from the ABC, which historically financed a large number of rural enterprises. On the other hand, Cinda AMC has the highest cash recovery ratio among the group. Cinda was originally matched up with the CCB in 1999, which historically provided financings for capital construction projects and urban housing development. These real estate assets are substantially more liquid than other collaterals, thus maximizing the recovery value. According to Cinda's website, more than 26 percent of the NPLs it purchased in 1999 were collateralized by real estate assets. Huarong got the largest number of NPLs from ICBC. By now, it has disposed around 70 percent of the NPLs as of March 31, 2006. Orient acquired the least number of NPLs from its parent bank, BOC, but has achieved the lowest accumulative asset recovery ratio among all four AMCs.

IV. Sources of NPLs in China

As Zhou Xiaochuang, President of People's Bank of China (PBoC) said in 2004 "among all the NPLs in SOCBs, around 30% is the result of intervention by the central and local governments; around 30% is due to the financial support to SOEs; around 10% is owing to the lack of appropriate regulation and execution of law; around 10% is due to the adjustment of industrial structure and hence the closure of some enterprises; only 20% is the result of poor management of the banks".

To summarize, China's current daunting NPL level is primarily the result of:

- Over 40 years of extensive policy lending under a centrally planned economy;
- Low operating efficiency of State-Owned Enterprises ("SOEs");
- Weak corporate governance and operational skills of banks.

The NPLs generated before Chinese banking reform of 1994 is mainly the result of extensive policy lending and the low efficiency of SOEs while the NPLs generated after 1994 is mainly the result of lack efficient corporate governance and operational skills.

Extensive policy lending under planned economy

The current NPLs dilemma is the product of a legacy of central planning, and the main players in the drama are Chinese government officials, particularly members of local governments. Before the banking reform of 1994, Chinese government routinely mandated that the SOCBs lend to SOEs for insolvent SOEs, key infrastructure projects and social welfare subsidies, regardless of profitability. The policy lending was made due to three reasons. First, the price system failed to induce the optimal allocation of resources for investment at the enterprise level. For example, both the rental rate for housing and the price of electricity for industrial and residential use had long been ridiculously low. However, it did not discourage large scale investment in both housing and electric power plants since the investment in these two areas is mainly induced by favorable policy lending, which would finally turned to be NPLs. Second, many of the loans made in the 1980s were used to support the industrial policy. Although the enterprises receiving the loans in some cases were unprofitable under the technology they had and the prices that prevailed, the loans were successful in terms of promoting the development and modernization of important industries. In the 1980s, the Santana cars assembled by Shanghai-Volkswagen were very expensive comparing with the cars made in Japan, as most of the parts were imported from Volkswagen. However, the policy loans that were used to establish Shanghai-Volkswagen helped to develop China's automobile industry in the long run. Third, most of policy lending made in the 1990s was aimed to save SOEs from liquidation. In the industries like textiles, heavy machinery, electrical equipment, mining and so on, which were traditionally dominated by SOEs, the equipment and knowledge were twenty-five or more years out of date in the 1990s. The products produced by these enterprises were so obsolete that their prices did not even cover their material cost of production. This means that these SOEs should be shut down. However, the government still supported them through policy lending since before reform the social function of employment, income, housing, health care, children's education and retirement pensions are all provided by SOEs. To abandon this system and close SOEs overnight could have produced the poverty, reduced life expectancy, despair and chaos which was experienced by the former Soviet Union when the old planned economic system collapsed. The policy lending was consequently used to achieve the objective of modernizing its industry as rapidly as possible while balancing the conflicting objectives of minimizing the hardships imposed on its workers, and maximizing the incentives or pressures to make the needed adjustments.

Therefore, the banks involved have acted primarily as government agents, disbursing funds to a variety of pre-determined projects without any preliminary credit analyses. Such analyses were never performed, nor was there thought to be any need for them, since all credit terms including the amount of the loans, loan maturity, interest rates, and so forth, were pre-determined by the government. Under the "policy lending" guidance, poor documentation for loan collateral was common, and credit risk management skills were far from meeting international standards. Such a system could not help but generate irrational investment decisions, and these decisions frequently resulted in non-performing loans.

In 1994, the Chinese government established three policy banks that took over the policy lending tasks from the SOCBs, leaving the latter with more healthy capital to develop a commercial lending orientation. The administration also established a legal basis for commercial banking with the promulgation of the Commercial Banking Law in 1995. Moreover, as the economic reform progressed, the welfare and security burden assumed by the SOEs was transferred to the government sector.

Although state-directed lending has slowed down significantly, certain banks and their officers still feel pressure from local party officials or local businesses with political connections to make uneconomic lending decisions. The government intervention in the city commercial banks is notable, as these banks are partly or fully owned by the local government. In some cases, the leading officers of these banks are appointed by the government. Consequently, the NPL ratio in city commercial banks is as high as 30.96 percent by the end of 2000, although it is reduced to 16.53 percent in the middle of 2003 (Wang Yijiang and Tian Guoqiang, 2003).

Low operating efficiency of State-Owned Enterprises

The underlying causes of China's NPLs situation have to do with the way China has traditionally financed its multitude of state-owned enterprises (SOEs). Under the planned economy, SOEs are required to produce according to the economic plan made by the government. In order to ensure that SOEs implement the production plan as required, almost all capital needed by SOEs was provided through fiscal appropriation. In the 1980s, Chinese government changed the way it financing SOEs from fiscal appropriation to banking loan. As state-owned banks are not really commercial banks, they are forced to assume fiscal burden. Such a distorted credit system would definitely create moral hazard in SOBCs' loan to SOEs. SOEs have treated their share of credit allocations as government grants and used them to finance circulating capital and fixed investment. In too many cases, these disbursals have not been thought of as debt obligations that had to be repaid. Though state enterprises have been able to shift the consequences of their lack of foresight to Chinese banks, the banks have had no way to pass the burden on. Hence, a large amount of NPLs arose.

Besides the distorted credit system under planned economy, low operating efficiency of SOEs also produced considerable NPLs. SOEs represent over 40 percent of China's manufacturing output, employing more than half of the industrial workforce (Norton and Chao 2003). Having long suffered from technological obsolescence and excess capacity, the SOEs were squeezed by intensified competition as China gradually opened its doors to private and foreign capital in most industries. In 1998, over two-thirds of all SOEs generated a loss for the year. In contrast, private companies including Chinese owned, foreign owned and joint ventures have grown very fast over the past ten years and have become the engine of China's economic growth. They account for half of all output and much of net new job creation. Meanwhile, the share of production from wholly SOEs has shrunk to barely one-quarter of GDP. Nevertheless, wholly and partially state-owned companies absorb most of funding from the banking system. Wholly state-owned companies receive 35 percent of bank credit although they only produce 23 percent of GDP. The shareholding enterprises that are partially state-owned and the collective enterprises take up another 38 percent of credit, although producing only 25 percent of output. Despite the tremendous contribution they made to output and employment, private enterprises account for only 27 percent of loan balances[11].

NPLs are the most conspicuous outcome of capital misallocation by the system. Despite the low operating efficiency of SOEs, SOCBs provide loans to SOEs with little regard to their ability to repay its loans, under the perception that the ultimate loss will be borne by the government. In

[11] Mckinsey Global Institute, "Putting China's Capital to Work: The Value of Financial System Reform", 2006

certain instances, banks simply extended new loans to insolvent SOEs, so that they could use the new funds to fulfill existing debt obligations. At the end of 2001, the total liabilities to equity ratio for China's SOEs stood at 158 percent. SOEs in the construction, real estate, food, and textiles industries were among the most highly leveraged, with total liabilities to equity ratio in excess of 350 percent. When adjusted for unhealthy assets, the total leverage ratio of locally-administered SOEs escalated even further, from 252 percent to 632 percent. The continuous losses of the SOEs and the unremitting credit support that they received from banks resulted in mounting bad loans in China's banking system. As a result, the NPL ratio is much higher in those provinces where SOEs concentrated than that in the coastal provinces like Zhejiang as SOEs traditionally account for a small share in these provinces.

Weak Corporate Governance

During the transition from planned economy to market economy, the state ownership of China's economy has declined significantly over last two decades. However, the banking system still has the highest level of state ownership in the world. The government still firmly controls the banking sector. Besides the four SOCBs, state-controlled banks totally accounted for 90 percent of bank assets in 1990, which fell only slightly to 83 percent in 2004. The level of state ownership of Chinese banking system is much higher than that of Eastern Europe's transitional economies. In Hungary, state-owned bank assets accounted for 81 percent of total bank assets in 1990, but the ratio declined dramatically to 8 percent in 2004. In Poland, the ratio of state-owned bank assets also fell tremendously from 80 percent in 1990 to 20 percent in 2004. In Czech Republic, the ratio of state-owned bank assets was 78 percent in 1990 but it decreased considerably to 3 percent in 2004[12].

With such a large share of state ownership, Chinese banks commonly lack modern effective corporate governance mechanisms. The boards of Chinese banks had no clear roles and exercised little authority over management or operations of the institutions. Moreover, there are no explicit guidelines for the type and structure of board committees, the qualification and mix of directors, or the role and rotation of auditors. For those banks being prepared for foreign IPOs or having made IPOs, the regulators have made effort to improve governance requirements. The independent outside directors have been appointed. However, these directors are still a minority at SOCBs. Most banks still lack clear decision-making structures with lucid accountabilities that run throughout the organization, making it challenging for boards to control risks effectively.

As a part of banking reform, some of Chinese JSCBs started to list in the stock market in the

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[12] Mickensy Global Institute (2006)

1990s, including Shenzhen Development Bank[13]'s IPO in 1991, Shanghai Pudong Development Bank's IPO in 1999, China Minsheng Bank's IPO in 2000, China Merchants Bank's IPO in 2002 and Bank of Communication's IPO in 2005.

The reform of SOCBs is proceeding step by step: first, dispose the SOCBs' non-performing loans; second, reorganize them to be joint-stock limited companies not totally owned by the government; third, draw domestic and overseas strategic investors; fourth, create initial public offerings, and improve incentive mechanisms; finally, the government will recoup its investment and gradually give up owning shares in the banks.

The reform of CCB and BOC has followed this path. After peeling off their NPLs to AMCs and getting capital replenishment from the government, they were reorganized to be joint-stock limited companies in 2004. From 2005, Chinese government has allowed strategic pre-IPO foreign investors in some large banks. Among the investors of China Construction Bank, Bank of America acquired a 9 percent stake for $3 billion, and Asia Financial Holdings Pte. Ltd., a wholly owned subsidiary of Singapore-based Temasek Holdings (Private) Ltd., acquired a 5.1 percent stake. The pre-IPO foreign investors of Bank of China include Deutsche Bank, UBS and Goldmen Sachs. The foreign strategic investors have brought the new management ideas to these Banks and have replaced a number of government officials with foreign bankers.

Incorporating strategic investors and listing in the stock markets could improve banks' ownership structure, replenish capital, standardize the exercise of shareholders' ownership rights, establish a directorate system to evaluate efficiency and responsibility, improve management's leadership, strengthen supervisors' functions, and finally transform the banks into real market players.

However, the foreign ownership stakes still account for a small share in SOCBs. Besides SOCBs, China has roughly 120 city commercial banks and joint sharing commercial banks, as well as more than 30,000 rural and urban credit cooperatives, most of them are still firmly controlled or influenced by the different levels of government and lack even the most basic components of good corporate governance.

State ownership of banks reduces competition and the pressure on banks to operate on a commercial, profit-oriented basis. In China, government always appears to be the last resort of the banks. A large volume of $105 billion has been injected by the government into the banking system since 1998 to recapitalize banks and $307 billion of NPLs has been transferred at face value to the state owned asset management companies. These coddle behaviors indicate that

[13] Shenzhen Development Bank is the only bank in China that is run by foreign owners and is managed by the American private equity firm Newbridge Capital, which is the largest shareholder with almost 20 percent of the shares and was chosen by a controlling group of shareholders to run operations.

Chinese government is willing to provide funds to state owned banks. It will not only lessen the profit pressures of the banks, but will also create moral hazard, with which the banks will take risky operations. Moreover, high levels of state ownership make it difficult for banks to escape the political influence from the local governments and to reduce bloated bank payrolls. Even worse, the gold-plated corruption, reckless lending, misappropriation and fraud have actually plague China's dysfunctional banking system. According to CBRC, during the first half of 2005 the Big Four SOCBs handled 98 criminal cases of fraud among bank employees. The official Chinese Xinhua News Agency recently reported that CBRC punished 6,826 bank officials in 2005 for illegal actions or outright financial crimes. China Construction Bank disclosed in its October, 2005 offering prospectus that it experienced more than 100 cases of fraud and embezzlement by employees between 2002 and 2004.

Operational Weakness

Despite the efforts made by the Big Four SOCBs to upgrade management oversight and lending skills in recent years, Chinese banking system as a whole still have several operational weaknesses.

First, most banks don't have good internal credit-assessment capabilities. Under the planned economy, most of loan was directed or ordered by the government to fund the project or SOEs. Under such environment, loan officers were not required to develop good credit-assessment skills. It is actually no need for banks to develop credit scoring tools or to keep good records of borrowers' credit histories under the circumstances of extensive policy lending. Although the government intervention on lending has been greatly reduced since the banking reform of 1994, banks still make lending decision based on incomplete data with insufficient analysis in many parts of China, partly due to the poor quality and unreliability of many companies' financial statements. With poor credit-risk-management skills, when a major bank reviewed its lending portfolio in one region, it would find that for 60 percent of the loans, it couldn't determine which industry had received the loan, what collateral was provided for it, or even who had made the lending decision.

In order to overcome the operational weakness, some SOCBs have made great effort to improve the skills of their loan officers; some SOCBs have required provincial or regional approval for larger loans. However, in small banks, loan officers still make loan decisions according to past experience and hierarchical approvals, instead of rigorous analysis of companies.

Second, the banks commonly lack external information on the credit histories and the financial condition of potential borrowers, including corporations and consumers. Under the environment of extensive policy lending in the past, banks do not collect the good-quality information on borrowers' credit histories and financial performance. Moreover, China has neither independent credit rating agencies like Standard and Poor's, Moody's or Fitch to provide essential information on potential borrowers of corporations, nor a national consumer credit bureau to provide information on enormous potential borrowers of consumers and small business owners. This is partly due to the lack of nationwide standards for collecting and sharing the necessary data. Until January 2006, Shanghai was still the only Chinese city that had a local data collection directive and a formal personal credit bureau system covering 300 million people.

Finally, Chinese banks don't have effective performance management systems for the employees. Loan officers neither need to assume the responsibilities of issuing bad loans, especially to SOEs, nor get rewards for taking a well-calculated risk in new lending segments like consumer lending or small business loans. Managers accordingly don't have sufficient incentives to expand the lending to consumers and SMEs since this part of loan is typically more risky but also has higher return rate comparing with loans to large companies or SOEs. Therefore, despite the low efficiency of SOEs, many banks still lend heavily to them, particularly the large SOEs, since their scale and the support from the government makes the loan to them seem low risky. As a result, the loan to corporations, large SOEs in particular, accounts for two-thirds of total bank lending while the loan to consumer only accounts for 10 percent of the lending.

With operational weakness, the profitability of SOCBs is far from being satisfactory. The profit of Big Four SOCBs is mainly made from the difference in interest rate between deposit and loan. The interest income of loan accounts for 69 percent of the four SOCBs' total income. In 2000, the profit margin of is only 0.13 percent in ICBC, 0.01 percent in ABC, and 0.14 percent in BOC and CCB while the profit margin in Citibank (China) and Hong Kong and Shanghai Banking Corporation _HSBC, China_ is 1.5 percent and 1.77 percent respectively. In 2001, the profit per capital in the Big Four is barely RMB 10,000, which is roughly equivalent to 1/25 of profit made by foreign banks (Zhong Wei etc, 2003).

V. New Challenges

Although NPL ratio fell sharply from 31 percent to around 10 percent in 2005, it seems that China's NPL problem is likely to persist. The rapid decline of NPL ratio is not really the result of NPL recovering, but mainly due to two factors. First, the transfers of more than $300 billion bad loans from banks to AMCs explained around 60 percent of the decline in NPL ratio. Second, the rapid expansion of bank lending in 2003 and 2004 also contributed significantly to the reduction of NPL ratio by increasing the denominators. Although these factors could lower the NPL ratio in the short time, operating weakness of the banks is the underlying factors that might lead to new

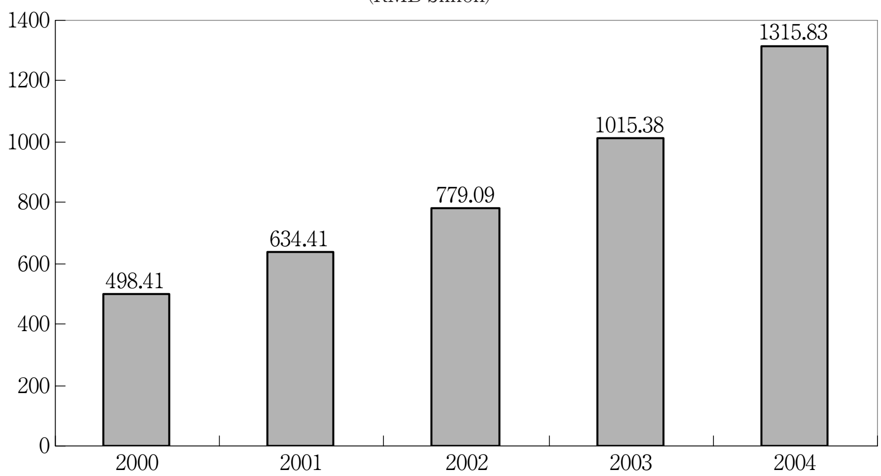
NPLs. Moreover, given lower cash recovery rate of NPLs within AMCs, the burden of NPLs will possibly fall on the government. Actually, a flow of new bad debt is piling up, though old bad debt hasn't been fully resolved.

China's economy is experiencing a new round of investment heat during recent years. According to National Bureau of Statistics, the fixed asset investment grew by 27.7% from 2002 to 2003 and 26.6% from 2003 to 2004. The investment in real estate grew even more faster. As indicated in Figure 4, the investment in real estate increased by 30.3% from RMB 779.09 billion in 2002 to RMB 1,015.38 billion in 2003 and increased by 29.6% from RMB 1,015.38 billion in 2003 to RMB 1,315.83 billion. . Due to the strong demand and speculation activities, the price of real estate soared tremendously, which increased by 4.8 percent in 2003 and 9.7 percent in 2004. The growth rate of real estate price is even daunting, especially in the coastal cities. The real estate price of Shanghai, for instance, increased by 20.1 percent in 2003 and 15.9 percent in 2004.

During this round of investment wave, the loan increased tremendously in China between 2002 and 2004, especially in some highly risky sectors, such as the iron and steel, aluminum, cement, and real estate in particular. Property lending has also been one of the fastest-growing categories at many Chinese banks. For instance, about 25% of the loan portfolio of China Construction Bank is tied to the highly risky real estate market. Chinese banks commonly lend the property loan by first funding a real estate development fully, such as an apartment tower or housing complex, then holding on to the property and extending more loans by providing residential mortgages as well. This kind of practice is fine when values keep rising. However, banks usually don't exactly know the credit quality of both developers and individual borrowers. If the bubble of real estate breaks

Figure 4, Investment of Real Estate, 2000-2004

(RMB billion)



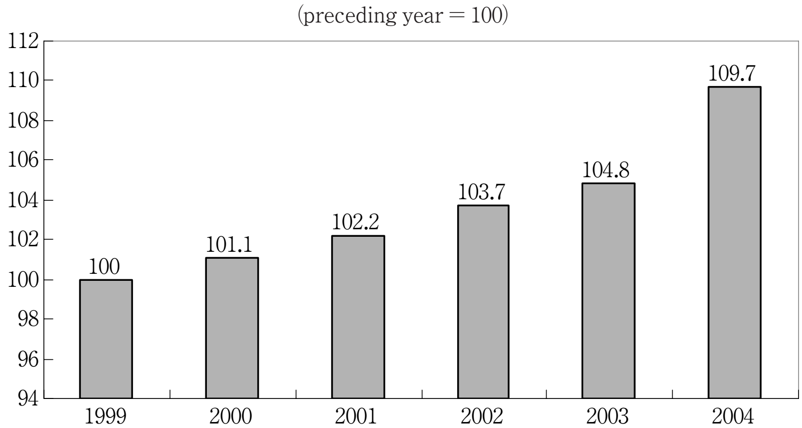
Source: China Statistical Year Book, 2005 up and the property prices falls, the property loan will become NPLs.

To prevent Chinese economy from overheating like that in the early 1990s, the government has initiated the macroeconomic control measures to cool down the economy, especially in the field of real estate. To control the credit expansion, PBoC has raised the deposit reserves requirement twice, initiated a tired reserve requirement system tied to each bank's capital adequacy ratio, and imposed credit controls on certain overheated sectors. As low interest rates, both for house developers and buyers, were regarded as a main reason for the overheating, on October 28, 2004, the PBOC raised the benchmark rate for one-year RMB loans by 0.27% from 5.31% to 5.58%, and the benchmark one-year RMB deposit rate by 0.27% from 1.98% to 2.25%. This is the first interest rate hike in nine years[14]. The People's Bank of China (PBoC) increased its benchmark one-year lending rate by 27 basis points to 6.12% on Aug. 18, 2006. While these measures have managed to curb over-investment and slow year-over-year GDP growth, the excessive credit expansion has resulted in an increase in NPLs at major banks during 2004.

With these cooling-down measures, the bank credit was reduced and the price of real estate fell. The huge buildup of property loans has turned to be piles of new NPLs in the system. It is estimated that the new NPLs resulted from property loans might amount to RMB 649.4 billion by 2007[15]. The figure reported by Moody's indicates that default rates on loans to developers are already ranging from roughly 8% to 12%[16].

Figure 5, Selling Price Index of Houses, 1999–2004

(preceding year = 100)



Source: China Statistical Year Book, 2005

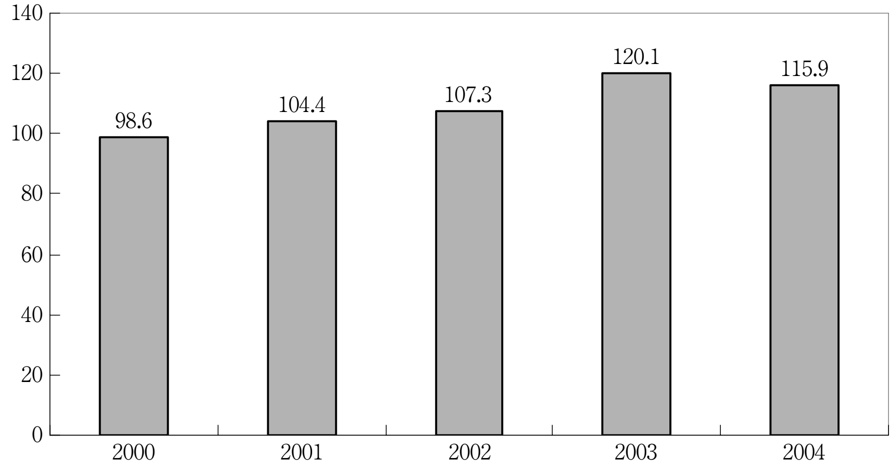
14 "Interest rise aims at cooling property sector", China Daily, Dec. 1, 2004

15 Estimated by Li Hailin, CEO, Dongdu International Group

16 Banking on China's Reform, Mckinsey Quarterly

Figure 6, Shanghai Selling Price Index of Houses, 1999-2004

(preceding year = 100)



Source: China Statistical Year Book, 2005

VI. Conclusion

In the last few decades, China has established a huge banking system which intermediates around 75 percent of the nation's capital and has made China's financial depth double in the last decade. However, during the transition from planned economy to market economy, a large volume of non-performing loans has been generated, which has threatened the sustainability of the banking system. Chinese NPLs is mainly the result of extensive policy lending, low efficiency of SOEs, weak corporate governance and poor operation skills of the banks, and the business cycles. Chinese government has taken a lot of measures to solve NPLs, including transfering NPLs to asset management companies, recapitalizing the SOCBs, establishing the CBRC, incorporating strategic investors, initial public offerings, and so on.

Although NPL ratio of SOCBs has been reduced significantly, Chinese banks continue to make astounding numbers of questionable loans atop the existing pile with the economic overheating initiated in 2002. The Chinese regulators must, therefore, go beyond merely fixing the "stock" problem of NPLs in the financial system and confront an additional source of instability: a flow of new bad debt. Any failure by regulators to control these bad lending practices may put China's future prosperity at risk.

To control the creation of new bad loans, i.e. the NPL "flow" problem, the regulators must introduce better corporate-governance practices to curb the ability of influential organizations and people to meddle in the lending decisions of banks, improve their risk-management practices, and limit fraud. Banks must recognize their new problem loans more rapidly and must adapt and manage their loan portfolios by the lights of explicit, world-class credit-risk-management guidelines and strictly enforce compliance.

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