MORTGAGE IN CHINA

By

Xiong Liping

THESIS

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KDI School of Public Policy and Management
in partial fulfillment of the requirements
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MASTER OF BUSINESS ADMINISTRATION

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ABSTRACT

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After 25 years of reform and opening to the outside world, China is now in a rapidly developing stage from planned economy to market economy. So many unprecedented changes are taking place in this country, especially in economy field. As a very important sector to the whole economy, China banking industry has always been hesitating in reform although changes in this largely state-owned industry are in fact unavoidable. Changes have to happen in the banking industry because the non-performing loan (NPL) rate is very high in almost all these state-owned banks. Meanwhile more competitive foreign banks are coming into the domestic market after China's entry into WTO to compete with them directly. It is urgent for Chinese banks to speed up its transition from planned economy banks to modernized commercial banks. Mortgage is one of those changes. It is a new idea to China and it came into China only in the middle of 1990s. Banks which were so unwilling to have it at first now regard it as a promising product and a sign of hope when they are struggling against NPLs. The reason is that mortgage has a very low default rate up till now in China comparing with other loans, particularly those granted to state-owned enterprises (SOE). So there is no wonder mortgage loans grow at 100% annually sinc e it was introduced into China. Mortgage is introduced to China from western countries, it developed in China into quite different forms because of China's unique political, legal and cultural characteristics. Although most banks in China regard mortgage loans as a high-quality asset with almost no risk, unfortunately it is not risk free. This thesis takes efforts to introduce the overview of the mortgage development in China and focuses on its current problems and alternative solutions by considering both experiences and lessons from other countries and the particular situation in present China. Those risks brought by mortgages to banks include credit risk, liquidity risk, interest rate risk, collateral disposal risk, market risk and policy risk. Some of these risks are common in countries where mortgage exists, but some of them are unique to China since China is a developing socialist country, a country that is trying everything, which were not familiar to her before. The thesis also examines the ways to protect mortgage-making banks against those risks, for example, to establish credit scoring system, securitize mortgages, improve mortgage application examination procedures, provide more mortgage products and increase its service level, etc. It is emphasized that all these measures can't be done without the government's support. This is also a feature of China, where the reform is directed by the central government. It is only with government's support that it is possible to establish good legal infrastructure, primary and secondary mortgage markets, national guarantee system and mortgage registration system. Government can also encourage more institutional investors to participate in the mortgage market.

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I. Introduction

As real estate industry becomes the pillar industry in China, it becomes very important to the national economic development. The development of real estate industry depends heavily on the reform and development of real estate finance system, one key part of which is mortgage business. Mortgage is a pivotal issue in real estate finance and it helps a great deal to solve housing problems. Therefore, the research on mortgage, particularly on the risk brought by mortgages to financial institutions and on the measures of guarding against those risks are of great meaning to promote mortgage market, the housing and the real estate industry development.

II. Background Information

A. Land System

After the foundation of People’s Republic of China in 1949, the Constitution stipulates that all the land in this country is owned by the whole Chinese people and is managed by the central and local governments. The former owners of a land can use that land, but does not own it, but they still own the houses on that land. While governments have right to requisition a land. Under the planned economy, land is allocated free to some specific uses, for example building a factory, without paying any price but should not be used for any other purposes other than the nation-stipulated one.

China adopted an Open and Reform policy since 1978 and gradually changed itself from planned economy to market economy since then. In April, 1988, an amendment of the Constitution makes it possible for the government to rent a land.

In 1990, the use right of urban land is allowed to be sold and transferred with a price. The transferable use right usually lasts for 70 years. This ends the 40-year history of non-transferable land system in China.

The Land Management Law of P.R.China published in June, 1986 provides that the ownership of all the land in China is exercised by State Council. In fact, the local governments are the real management agents, who determine the specific uses of a land according to a national land-development scheme.

Since 2002, land transference has to be carried out by bidding in an open auction instead of being decided by the central and local governments, which is meant to get rid of the unfair deals between the government officials and land developers for the purpose of reducing corruption.

It’s not easy for government to properly adjust land supply in a market economy way because sometimes governments may go above the market. The management of land by governments turns out to be low-efficient and causes corruption. Some scholars in China advocate the privatization of the ownership of land in China in the near future, but that is not an easy thing.

B. Housing System

Since the foundation of China in 1949, the housing of urban people is planned and provided by central and local governments and state-owned enterprises(SOE). Usually an employee who works for state-owned units will be given an apartment almost free from their working units. These working units, governments or enterprises, are responsible for financing and building houses for their employees and they are also in charge of distributing and reallocating houses to them according to their seniority. The result of this welfare housing system is that in the following 30 year since 1949, the average living space per capita in urban area had dropped from 4.5 to 3.6 square meters(1). Another result of the system is a few higher rank senior people have very big houses while a large number of common workers share a smaller percentage of houses. A not-the-exception example is that a three-generation family lived in a single room of 20 square meters for nearly ten year in Shanghai, the biggest city in China. This welfare housing system also became an unbearable burden for state-owned enterprises, especially for those not-well-managed ones, and a big hinder in the SOE reform in 1980s.

Since 1980s, Chinese government began the housing system reform, which helps SOEs gradually replace the welfare housing with housing subsidies system. Governments and enterprises don’t have to build houses for their employees any more. Instead new employees only get housing subsidies to rent or buy houses in the market. As for those already alloted houses, employees have to pay a price, much lower than the market price, to buy them and thus own them. These homeowners are also allowed to rent or sell their houses to other people, too, which they were forbidden to do before the reform. Until 1998, the free house allotment system has been replaced by housing subsidies system nationwide. As a result, the average living space per capita in urban area increased from 7.8 to 20.5 square meters in the period of 1980-2000(2).

In the Chinese real estate market, originally there are not many house buying and selling. In the first few years after the Open and Reform, only a few rich people can buy houses. But after the housing system reform, except those who have already had a house before the reform, most newly employed people have to rent or buy a house, or they have to live with their parents if they find a job in their hometown.

Usually they will rent an apartment either by themselves or sharing with other people. Later with the increasing of salary and savings, they will buy an apartment. Most homeowners in Chinese urban areas live in apartments buildings. Detached houses are luxury goods to them. In the countryside, rural people live in very simple detached houses.

When people buy an apartment, they may get financial support from their parents or use their own savings, borrow from relatives or friends, make loans from Mandatory Provident Housing Fund, or borrow money from mortgage banks. It's not easy for low-income people to obtain mortgages. Instead they can make use of the Low-rent Housing Plan or apply for a loan from Mandatory Provident Housing Fund, which have not-so-strict requirements for loan applicants and thus is easier for them to get the financial aid than from bank mortgages. The Mandatory Provident Housing Fund is composed of payments from both employers and employees by a certain percentage of employees' salary. The fund is used by employees for downpayment and monthly payment for their houses or apartments

C. Financial System

The establishment of the People's Bank of China (PBC) in 1948 marked the beginning of a new chapter in the Chinese banking history. China adopted the planned economy model of the former Soviet Union and correspondingly a highly centralized banking system. Such an all-in-one system was gradually abandoned after the Reform and Opening in 1970s.

Through five decades of evolution, particularly nearly two decades of reform and opening to the outside world, China's banking sector has entered a stage of vigorous development. With PBC as the central bank, the current banking system in China consists mainly of wholly state-owned commercial banks, which coexist and cooperate with policy banks and joint-equity commercial banks operating in their respective authorized business domains.

There are four big state-owned commercial banks in China and they are usually called "big four". They are Industrial and Commercial Bank of China(ICBC), Bank of China(BOC), China Construction Bank(CCB) and Agricultural Bank of China(ABC). The headquarters of PBC and "big four" are all located in Beijing.

The three major policy banks in China are State Development Bank, Agricultural Development Bank of China and Export-Import Bank of China.

Big joint-equity banks include China Bank of Communication, China Everbright Bank, China Merchants Bank, China Minsheng Banking Corp. Ltd, Beijing City Commercial Bank(changed its name to Beijing Bank in 2004), CITIC(China International Trust and Investment Corp.) Industrial Bank and Shenzhen Development Bank. According to the schedule of opening its banking industry to the outside as China promised upon joining WTO, there will more and more foreign banks in a couple of years in the China banking industry. They will cover more and more banking businesses in China.

D. Regulatory Authorities

Ministry of Land and Resources is responsible for the planning, management, protection and proper use of the land, mineral, sea and other natural resources.

Ministry of Construction is responsible for the construction industry, housing system, real estate market and public facility system.

People's Bank of China acts as the central bank of China and is responsible for supervising all Chinese banks and makes various banking policies.

National Development and Reform Commission is responsible for formulating national long-term development and reform plans and assists in implementing those plans.

Most land developer, most construction companies and most banks in China are owned by the government and regulated by the government. Modern market economy is not familiar to China, so the market-economy-style legal system and administrative management system are only at the beginning stage of development in

China. Most Chinese people are used to the ideas and way of living in planned economy although they are changing rapidly now. A very important characteristic of economic activities in China is that almost all economic activities are still heavily influenced by government policies.

III. History

Before 1978, China is in planned economy. The main purpose is to achieve equality. But its consequence is the loss of efficiency and the shortage economy. The productivity decreased to the lowest level. There were much more demand for various consumer goods than their supply. People suffered from being short of everything.

After 1978, China began to change from planned economy to market economy for the purpose of improving productivity. As a result of twenty-six years' efforts, the Chinese economy did change a lot, at least there is no shortage of consumer goods any more and Chinese people began to work hard to buy all kinds of goods from food, household appliances, TVs, refrigerators, computers, cars to even houses.

From 1980s to 1998, the period of housing system reform, Chinese people can't have free houses from the governments or their working units any more and they have to buy their own homes with savings or borrowings in the real estate market.

In October 1995, People Bank of China allowed some commercial banks (firstly China Construction Bank) in some cities to make mortgage loans to their customers. But the requirements for loan applicants are very strict: dual guarantee of the acquired house as a collateral and the third party's personal guarantee and the maximum maturity of mortgages is 10 years. Being eligible to apply for a mortgage, the customer must have a time deposit with the mortgage bank of an amount of at least 30% of the house-purchasing price and of at least half a year deposit time in advance.(3)

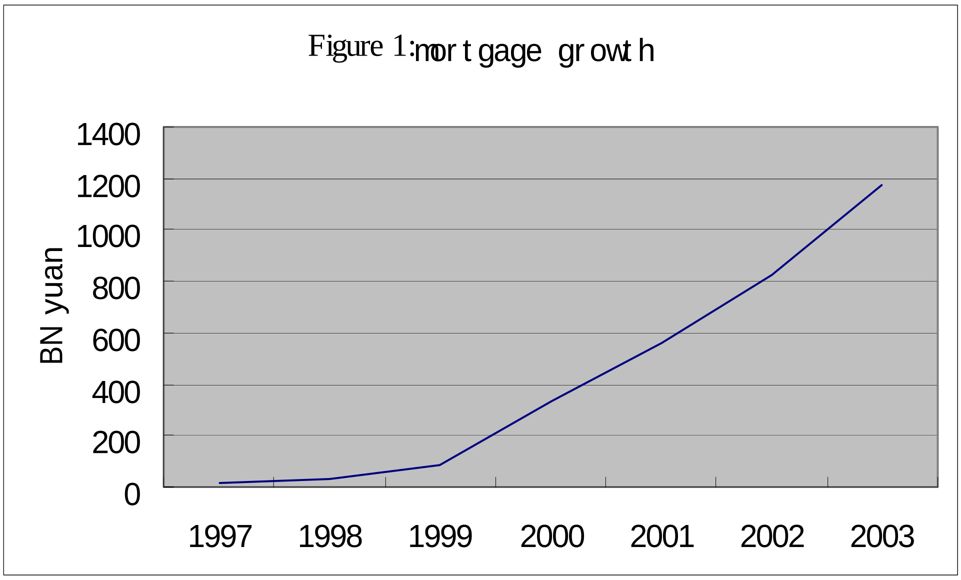
In April 1997, the People's Bank of China loosened the strict requirement for applying for a mortgage, for example, no dual guarantee, no time deposit in advance and a lower mortgage interest rate than the fixed assets loan rate. And the loan-processing time of banks should be less than 3 months.

In April 1998, the People's Bank of China allowed all the commercial banks in China to make mortgage loans for purchasing all kinds of residential houses in all cities in China. And PBC also asked the banks to reduce the processing time from 3 months to 3 weeks. This policy greatly stimulated the increasing of the amount of mortgage loans made since then. The total mortgage loans made in 1997 is 14 billion Yuan RMB only, but 32.4 billion Yuan in 1998 and 85.8 billion Yuan in 1999.(4)

In 1999, the PBC increased the Loan to Value (LOV) ratio from 70% to 80%, lengthened the mortgage maturity from 20 years to 30 years, further decreased the interest rate and encourage commercial banks to improve their service in making mortgage loans. This further encourage the development of mortgages and Chinese mortgage market goes into a rapid increasing stage in 2000. In fact, 50% of new loans made in 2000 are mortgage loans. In 2000, mortgage market in China grew rapidly. Nearly 50% of the loans made that year are mortgages loans.(5)

Worrying about the rapid increase of mortgages, PBC in June 2001 required all the commercial banks to appraise collaterals and register mortgages. It also stipulated that LOV ratio should be strictly within 80% and no “zero down payment”(i.e. 100% LOV) is allowed.

In June 2003, afraid of an unconfirmed real estate bubble, PBC excludes individuals who purchase the second house or apartment (could be for investment purpose instead of residential purpose) in his name from enjoying the preferential mortgage rate. The LOV ratio should be lower (lower than 80%) to them and loan maturity should also be shorter (less than 30 years), too. See Figure 1.



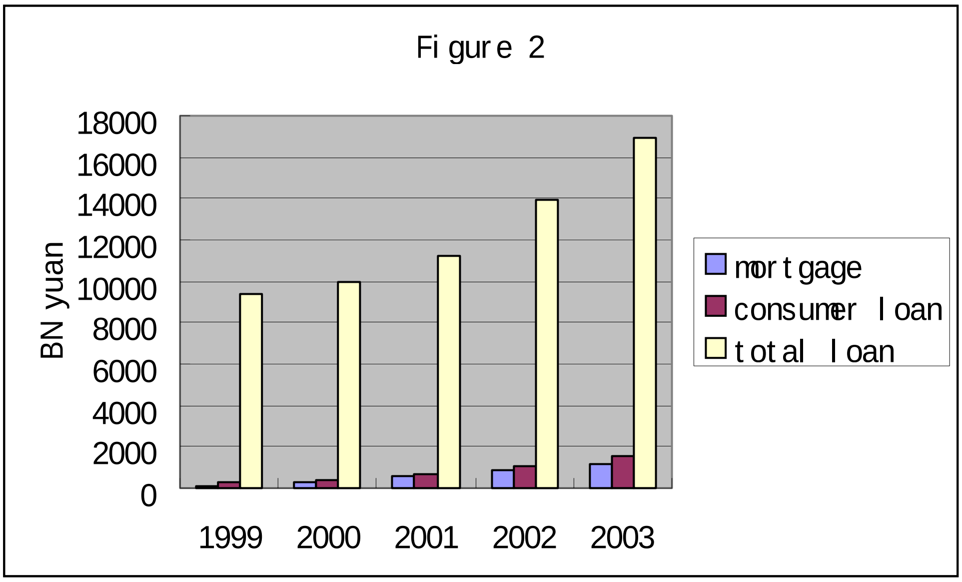
(source: People's Bank of China)

In October 2003, PBC became more optimistic about the prospect of the real estate market and claimed that real estate industry had become a pillar industry to Chinese economy, which has been taken as a sign of encouragement to developers and commercial banks. But the central bank still emphasizes the importance of risk management in mortgage of commercial banks and the focus of future development of mortgage is to middle- and low-income people. For those low-income people, the government began the Mandatory Provident Housing Fund in 1996 and provides cheap-rent houses to them, too.

At present, not only state-owned banks but also joint-venture banks make mortgage loans to urban residents not only in big cities but also in suburb towns to buy either a new apartment or an existing apartment. All the banks are improving their services in all aspects from mortgage products to banks' employees' attitudes to their customers.

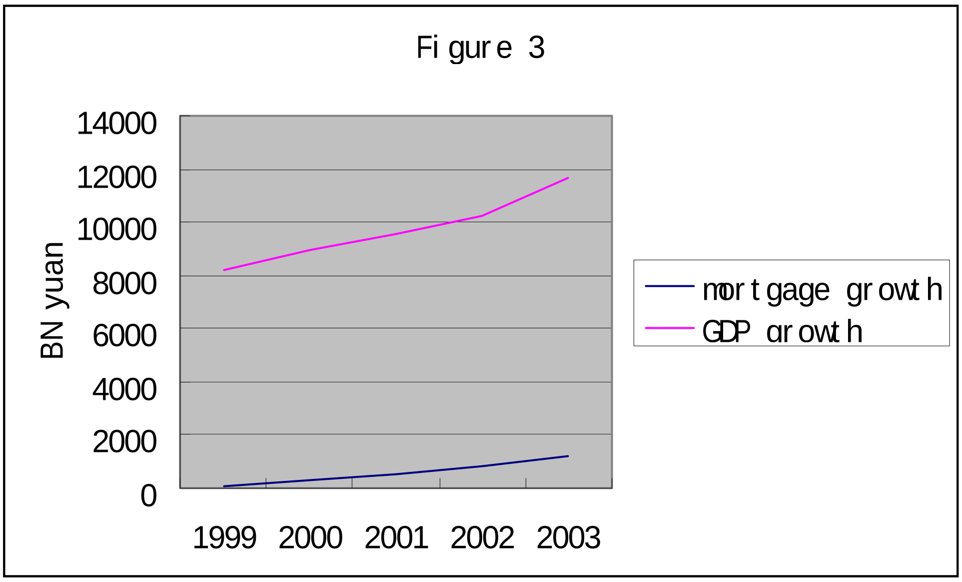
But the primary mortgage in China is still far from being perfect. For example, the mortgage rate is determined by PBC and fixed nation-wide. Usually mortgagors don't have many choices in selecting a bank. Instead they have to apply for mortgage to a bank designated by developers. Mortgage for buying a second-hand apartment is not common and as convenient to make as mortgage for buying a new apartment. There is almost no refinancing in China.

For a very long time in the planned economy, most Chinese people believe that banks only provide loans to enterprises for production and banks loans have nothing to do with individuals' consumption. So the consumer loans, appeared in 1990s, are revolutionary ideas to both banks and bank customers. The consumer loans are only 6% of the total loans in China in 2001, while the percentage is nearly 60% in the U.S.A. (6) See Figure 2.



(source: People's Bank of China)

At present, even if in China Construction Bank, which is the first bank in China to offer, mortgages to its customers, mortgage balance is only 1% of its total credit. While in developed countries, mortgage loans have reached 20-40% of their total loans. In terms of mortgage scale, the ratio of mortgage in GDP in 1995 is 55% in the United States, 32% in Hong Kong, 23% in Malaysia, 11% in Korea. But it is less than 1% in China even in 1998. See Figure 3. See Figure 3.



(source: People's Bank of China & China National Statistics Bureau)

There is great potential for further development of Chinese mortgage market. The current expense on houses of urban Chinese people is still low (10% in 2002) (7) comparing to the average 20-30% of western countries. In addition to the present huge demand for houses as a result of housing system reform, there are other sources for housing and thus mortgage demand. Firstly, China is now having numerous big-scale reconstruction projects; therefore many residents have to buy a new home to live elsewhere. Secondly, urbanization will be the biggest force to drive up the need for houses and also for mortgages. In fact, the mortgages have been growing at the speed of 100% and will continue a high-speed growth in the future 10 to 15 years. (8)

The bad loan rate for mortgages in China is only 0.25%, which makes mortgages one of the best assets for banks. All banks are trying to get a piece of the delicious cake.

In fact, as a trend of the world banking industry, credit business customer are now moving from big-size manufacturers and high-risk enterprises, which gradually turn to direct financing, to medium- and small-size service industry and personal credit which centers on mortgages. The low risk retail business is the direction for banking industry development. Data shows that the percentage of personal mortgage in the commercial banking business has reached 20% in Japan and more than 40% in the United States. But even in 2003, the percentage of consumer loans in total loans is less than 10%, let alone mortgage. See Figure 3. According to the statistics of the United Nations, when the average GDP per capita of each country is in the lap of US$800 to US$13,000, houses consumption will be continuously growing. The current GDP capital of China is US$1,000 and China mortgage has a great potential.

IV. Problems

Although mortgage doesn't have a long history in China, but the whole society benefits a lot from it. Their living standard have improved a lot with mortgages because they don't have to wait for decades until they saved enough money to buy a house. Mortgage with a low default rate also provide a high-quality asset to mortgage banks. It's particularly important to Chinese banks when their big customers, state-owned enterprises are struggling with bad performance and thus are unable to repay their debts. Mortgage also stimulates the domestic need for houses and consequently contributes to the growth of the real estate industry, a very strong force to push China's GDP growth.

But with the growth of mortgages in China, the corresponding risks also come to face banks, especially when the mortgage is in the beginning stage in China. State-owned banks always have support from the government, so there is no risk to them and they don't have any idea of risk management. But it is different now when the country is changing to market economy. The government wants banks to be efficient and profitable, but not only an accountant of the government. After the Initial Public Offering (IPO) of Bank of China and China Construction Bank, the other two big state-owned banks, Industrial Bank of China and Agriculture Bank of China, are also considering their IPO. Those potential risks include credit risk, liquidity risk, interest rate risk, the difficulty to dispose collaterals and risk brought by macroeconomic changes..

A. Credit Risk

Mortgage is a new thing to Chinese banks and it is greatly influenced by government policies. It is pushed to appear by governments. At first, banks hesitated to make mortgages and people are reluctant to apply for a mortgage because traditionally banks only take enterprises as their customer, but not individuals. Chinese people value no debts of the family a lot and they tend to think of a debt as a bad thing. However, this has changed greatly in China. Banks changed their views from only serving businesses to serving both businesses and individual consumers. People also began to accept consumer loans and are not afraid of borrowing money from banks to purchase their homes any more, partly because their ideas on debts have changed and partly because this could be the only way to buy a house except saving for many year. But they are still very careful about the decision of applying for a bank loan.

Banks now tend to consider mortgages as much safer loans than commercial loans and a kind of loan with greater growth potential. China Construction Bank (CCB) and Industrial and Commercial Bank of China (ICBC) are the two earliest and the two biggest mortgagees in China. It is reported by CCB that the default rat of mortgages in CCB until the end of 2001 is only 1.35%(9) and the ICBC reports its mortgage default rate until April 2003 is only 1.29%.(10) If that is the fact, then it is a very low ratio comparing to the international standards. According to American Mortgage Association, the default rate of mortgage in the United States is 4.25%

(11)until the first quarter of 2003.

But does it reveal the true default risk? Probably not. First the calculating method is in question. Most banks use the balance amount of the current year as the numerator instead of the mortgage balance in the whole maturity while People's Bank of China (central bank of China, PBC) requires the total balancing mortgage is the non-performing loan (NPL) if its monthly payment is delayed one month. For example, for a mortgage of 300,000 Yuan RMB with a yearly payment of 20,000, if the monthly payment is delayed one month, whether use 300,000 or 20,000 as the numerator will make a big difference to the default rate of mortgages.

Secondly besides defaults due to financial problems, there are intentional cheatings of mortgages. One paragraph of the auditing report of 2002 to People's Congress given by the Chief-auditor of China National Auditing Agency on June 25th, 2003 is in the following: "a sample checking up of mortgages in eight sub-branches of CCB in Guangzhou, Guangdong Province found that an amount of one billion Yuan RMB is deliberate cheating of loans by individuals. The suspects were arrested by the police." In fact, this cheated mortgage loans in the sample checking-up is already 10% of the total mortgages in CCB Guangzhou Branch. The mortgage in Guangzhou Branch is 5% of the total mortgage in CCB. But this is only a sample checking-up, the real situation could be worse. According to the report, in all these frauds, developers are both sellers and buyers. If the houses don’t sell well, developers ask their friends or relatives to apply for mortgages and buy the houses, usually with a higher price than the market price. Developers instead of the mortgagors pay the down payment and even monthly payment. The mortgagors often use false names and false income certification. As a result, the banks bear the default risks and the bubbled price risk in disposing the collaterals if the mortgagors, actually the developers, can’t repay the loans.

This reveals serious loopholes in banks’ examination of mortgage applicants. Banks are required by “Guidelines on Mortgages” of PBC in 1998 to make sure that mortgage applicants should have stable job and income, good credit history and the ability to repay the loan. Although the requirements are quite subjective judgment since there are no credit agencies in China, banks can’t be said to have done their duty properly.

Although Chinese banks changed a lot in the direction of really modern commercial banks. But most of them, at least the biggest four, are still state-owned, which means they still have a strong color of planned economy either in management team, the management style or system. In addition, most big real estate developers are state-owned enterprises. State-owned enterprises have a typical logic, which is that banks loans to them are just like the government puts the money in one of his pocket into another pocket.

In the past, it was unnecessary for Chinese banks to do any research before granting a loan in the planned economy because the loans they made were policy loans and the government was responsible for them. So Chinese banks did not have good loan applications examination and approving procedures until recently. They used to make loans according the governments' decision or by their impression or relationship with customers. In examining and approving mortgage applications, Chinese bankers often use their subjective judgment, which is not reliable, especially in this transition period in Chinese history. Although Chinese banks usually set very strict requirements for mortgage applicants, which are troublesome to many applicants, credit officials are dogmatic in examining and approving mortgages and as a result, they seldom refuse mortgage applications, at least much lower than the 20-50% rejection rate in the United States. Without risk management before making loans, Chinese banks put themselves in a dangerous situation.

On one hand, Chinese people don't think indebtedness is good. On the other hand, they don't know how important a person's credit record is to them in a market economy. Although the default rate of consumer loans in China looks low, default of consumer loans do exist. Even in loans made to university students for their tuitions, who are considered as high-quality customers by banks, there are defaults and banks can’t do many thing about this because a student may study and get a loan in one city, but work and live in another far away city after graduation. Or students may move from one city to another after graduation.

In fact, there was no credit scoring system at all until the latest four or five year. Although Chinese banks begin to establish customers’ credit record database and there appeared the first credit bureau in Shanghai in 2002, they are far from being well established. “It will be a disaster to make a lot of mortgages before establishing credit scoring system,” said by a top economist at the Asian Development Bank.

B. Liquidity Risk

Usually the liquidity of assets has an opposite relationship with its maturity. The longer maturity of the asset is, the less liquid it becomes. Mortgage undoubtedly has the longest maturity among all banks’ assets. Banks bear liquidity risk when they get their fund from short-term financial sources, but use their fund on long-term asset, for example, mortgages.

This mismatch of assets and liabilities also exists in Chinese banks. The majority of asset resources of Chinese banks are savings from enterprises and individuals and are of short or middle maturity while mortgages are mainly as long as 10 to 20 years. Thus banks expose themselves to a risk of mismatch in maturities of their financial resources and uses. If the savings slows down or loans are excessively made, banks have to face liquidity difficulty and even payment crisis or run-on.

If credit risk is a current risk facing Chinese banks, liquidity risk is a future problem for them. Liquidity risk was not so serious because of the high savings rate. But in the long run, it will be a danger to Chinese banks because firstly, with the foreign banks coming into China, Chinese depositors have more choices to deposit their money and they don't have deposit their money only in Chinese banks. Secondly, Chinese people are changing their saving behavior, especially young people tend to consume more than their savings. Thirdly, Chinese will have more freedom to exchange their RMB deposit into foreign currencies. Recently liquidity situation has been greatly improved because a large amount of foreign currencies are exchanged into RMB with the rise of interest rate in China. But if the movement is the opposite, that is a large amount of RMB are exchanged into foreign currencies, Chinese banks will face difficulty in liquidity.

C. Interest Rate Risk

Interest rate risk firstly lies in the fact that banks pay floating rate to its depositors, but charge comparatively fixed rate to mortgagors. Only when the central government adjusts rates, can mortgage rate change correspondingly. And mortgage rate is relatively low due to the central government's intension of encouraging mortgage development. However, savings rate changes frequently with prices or other factors. If savings rate rises and loan rate doesn't change, banks face a loss. If savings rate falls, mortgagors may refinance by borrowing from other resources with a lower cost and repay the mortgage in advance and thus banks can't realize their expected revenue.

Interest rate risk mainly lies in the fixed-rate mortgages. For variable rate mortgages, banks can avoid interest rate risk by relating its mortgage rate to market rate and thus transferring most of the risk to mortgagors. For fixed-rate mortgages, interest rate risk lies in the uncertainty of the expected future market interest rate by financial institutions.

The refinance is different from default risk in the fact that there is no default in repaying the mortgage. But the loan is repaid earlier than the contract stipulated date. For financial institutions, there is an unexpected repaid fund. But the financial institution is also not prepared about how to use the fund. And there comes the loss for the bank that it can't find an investment channel for this fund with the same profitability of mortgages. In addition, usually mortgagors choose to prepay the loan in advance because the market rate falls and the refinancing cost decreases. As a result, mortgage banks will lose because they can't get the expected higher return as agreed in the contract. Therefore, for a carefully made credit portfolio, repayment in advance composes a risk.

Changes of interest rate are unavoidable. If banks make floating rate mortgages, mortgage applicants may be unable to bear it. In fact, a big problem in China now is that the housing price is much more higher than people’s average income. If Chinese banks apply the present fixed mortgage rate, they have to be able to manage the liquidity and refinancing risks. In the United States, there is terms in the mortgage as to whether the mortgagors can repay the loan in advance or not or when they can if they are allowed to do so, how much mortgagors have to pay the old mortgagee when they decide to finance their mortgages.

Table 1

Interest Rate of RMB Loans					
Adjustment time	**Maturity**				
	6 months	1 year	1-3 years	3-5 years	5 years +
1991.04.21	8.1	8.64	9	9.54	9.72
1993.05.15	8.82	9.36	10.81	12.06	12.24
1993.07.11	9	10.98	12.24	13.86	14.04
1995.01.01	9	10.98	12.96	14.58	14.76
1995.07.01	10.08	12.06	13.5	15.12	15.3
1996.05.01	9.72	10.98	13.14	14.94	15.12
1996.08.23	9.18	10.08	10.98	11.7	12.42
1997.10.23	7.65	8.64	9.36	9.9	10.53
1998.03.25	7.02	7.92	9	9.72	10.35
1998.07.01	6.57	6.93	7.11	7.65	8.01
1998.12.07	6.12	6.39	6.66	7.2	7.56
1999.06.10	5.58	5.85	5.94	6.03	6.21
2002.02.21	5.04	5.31	5.49	5.58	5.76
2004.10.29	5.22	5.58	5.76	5.85	6.58

(source: People’s Bank of China)

Mortgages are long-term loans, which can't avoid experience the rate changes.

Chinese government has changed the interest rate a dozen times in the past ten years. But Chinese banks have not experienced a full cycle of interest rate changes, so they are not prepared for the risks brought about by the rate changes.

D. Difficulty of Disposing Collaterals

There are two kinds of risks involved in bank's disposing of collaterals. The first one is that the market value of collaterals has decreased below the mortgage balance. The second one is that the mortgage right can't be exercised because of legal problems, ownership deficiency or of too high exercising cost.

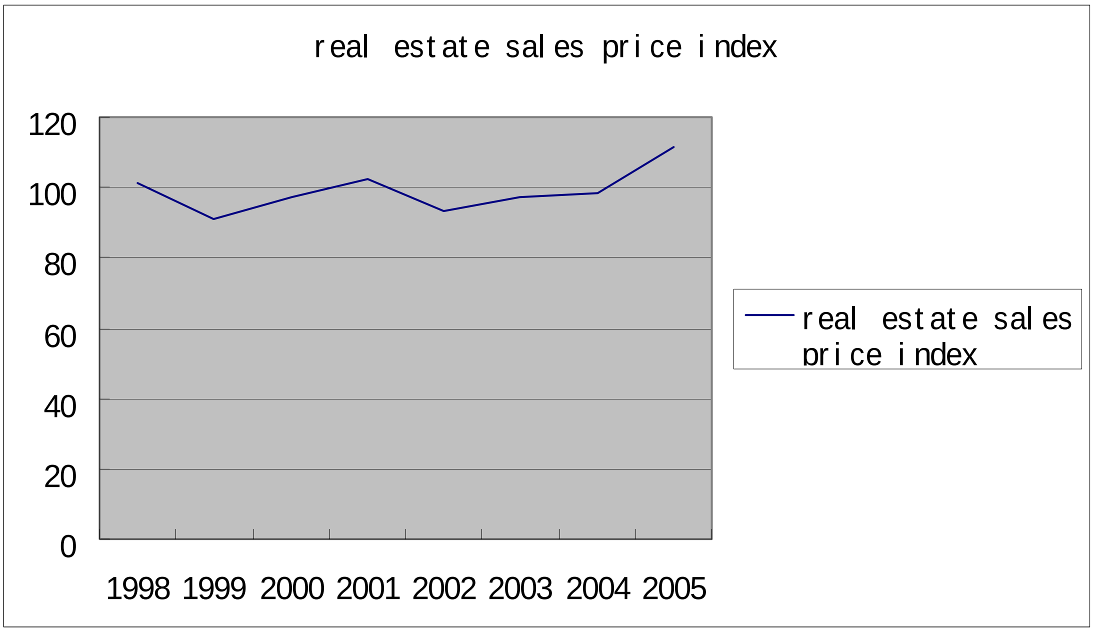
In fact, Chinese banks have not faced the real challenge of mortgages yet --- the fall of real estate price. For example, the real property price decreased 4% in 2002 and 2% in the first half year in 2003(12). There are doubts about the real estate bubble in some cities in China now. It's possible that the price drop can't be covered by the 20% or 30%(13) down payment. In Guangzhou, some apartment buildings involving cheating of mortgage loans have decreased 40-60%(14) in price.

Also the collateral experience damage of a certain levels because of accidental or intentional action of the mortgagor or a third party, and as a result the value of the collateral drops below the mortgage balance.

There is no well-established real estate title registration system, no open and active auction market and no trustworthy agencies for banks to dispose their collaterals, so banks may experience title defects and it is neither easy nor quickly to liquidate a house. Even banks can sell the collateral; it is not easy to exercise it because the customer may be homeless. Only after the social security system is established in China,

E. Macroeconomic Changes

A particular characteristic of Chinese real estate financing is that real estate developers don't have many financing channels. Banks are their primary financial source. So another risk to Chinese banks is that not only houses buyers but also developers and builders depend on them. What if the whole real estate industry depresses if changes happen in macro-economic situation. The real estate industry is in the growing stage in China and there are no nationwide dramatic ups and downs until now. But we do have that terrifying real estate bubble breaking in Hainan Province in 1980s. And there is constant doubt about such bubbles here and there in China. If such a situation occurs, how can the banks manage them when the banks support the whole industry from developer to consumers? In face, if anyone of the developers, builder or consumers defaults to banks or to one another, there will forms a risk to banks. If banks grant a loan to developers, they have to make loans to builders and consumers, too. Otherwise, developers can't survive to repay the loan. Thus Chinese banks are in a dilemma. If banks tighten the credit to the demand side of the real estate industry, there will be over-supply or if banks rein in the supply side, the demand will not be met. If banks support both, the whole market could inflate and add risk to banks. Thus forms the situation in which bank policies instead of supply and demand decide the real estate market. The problem is that banks can't judge the real changes between supply and demand to keep the market balanced. But in the United States, real estate enterprises primarily don't rely on banks in financing and even consumers have other channels to apply for mortgages. Reits? , mortgage securitization reduce bank risks greatly and meanwhile efficiently support consumption.



(source: www.3000.gov.cn)

V. Solutions

The total return from a commercial loan is the compensation from assuming all these risks.

A. credit risk

Based on former Soviet Union credit-granting criteria, Chinese banks for a very long time emphasized sticking to credit plans a lot, which is a crucial principle in examine loan applications. At that time, banks are government agencies rather than profit-making companies. Chinese banks have to establish scientific loan-approving procedures, which is crucial to avoid default risks in market economy.

In developed countries like the United States, there are mainly two mortgage examining and approving methods: one is qualitative method and the other one is quantitative credit scoring. The core of the first method is the “5C”: Character, Capacity, Capital, Collateral and Conditions. Credit scoring is based the applicants’ credit history to judge an applicant’s risk quantitatively. The “5C” method is already applied in some Chinese banks. At present, Chinese banks need to establish the credit scoring system to the particular situation of China and combine it with the “5C” standards to make Chinese own mortgage appraising system.

Individuals’ credit record had nothing to do with their lives or economic activities when there were mainly group production and group consumption in China’s planned economy. It was unnecessary to commercialize individuals’ credit record when they were allotted houses. People have built their own good credit history when most people have to buy a house at the market but are unable to buy it with their current income or savings. Government can’t educate people to value their credit record. Only benefits or constraints can let them do so. This helps a lot to build credit system and enhances the reform to market economy.

Theoretically, an individuals' credit record system can solve the adverse selection problem, wherein the inability of one trader to assess the quality of the other makes it likely that poor-quality traders will predominates. The reason for the adverse selection lies in the asymmetry of information, that is, there is no mechanism for individuals to pass to banks the information about their creditworthiness and banks have no access to their customers' credit history so that banks can only make loans conditions according to the average social credit level. As a result, only high-risk customers are willing to borrow money from banks. To avoid such a situation, China has to establish credit-scoring system. Firstly, banks build their own database of customers' credit history. Secondly, each bank or financial institution put together his or her own database into one. The ultimate goal is to establish independent credit bureaus. Without a good credit appraising system, it is impossible to develop mature primary mortgage market, not to mention secondary mortgage market.

China's first credit bureau began its operation in Shanghai in 2002. Shanghai Credit Company buys credit information from commercial banks at the price of RMB0.2 Yuan per customer and charges RMB10 Yuan per person for commercial banks' enquiry, which is much cheaper comparing the $30(240 Yuan) in the western countries. The establishment of this company was warmly welcomed by commercial banks, governments and the public as well. Owing to this company, 1.8 million residents in Shanghai who have a good credit record are able to get loans at the maximum amount of 300, 000 Yuan(15) based solely on their good credit scores and without any collaterals, hypothecates or guarantees. Cities other than Shanghai have also started their tentative efforts to build their own credit scoring system. For example, Jinan Branch of CCB in Shangdong Province adopted a method to classify their customers into four scores: A, B, C and D. While Wuhan Branch of CCB scored the credit levels of their Dragon Credit Card customers into 7 groups: 3A, 2A, A, 3B, 2B, B and C.

Credit rating is a new industry in China. There is neither a complete and well-functioning legal framework nor an industry standardized system of management and self-regulation. So the credit scores given by the few existing credit rating agencies are not well accepted by the public. Therefore, governments and financial institutions should take efforts to push the construction of credit rating agencies, supervise their operations, and enhance their transparency and independence to provide objective, fair and unbiased credit rating information.

In addition, banks can take some other measures to reduce the default risk, for example, to provide more flexible repayment schedule to meet the needs of different segments of customers, who prefer to repay the majority of the loan at the beginning or who prefer to repay the majority of the loan at the last periods, or who meet unexpected and temporary financial difficulties.

One goal of China’s financial reform is to make the interest rate determined by the market. Chinese banks then are able to apply different ineptest rates to customers with different credit record.

At the first stage of developing credit rating in China, the government should take more responsibility. Firstly, the government needs to standardize the practice in the credit rating industry of credit reports, data retrieval system, qualification of the employees in this field and others. Secondly, the government has to ensure by law the credit information public or assembled in a professional which are now held by different individual state-owned banks, telecommunication companies and public utilities, which is against the current “Act on Commercial Banking” and “Anti-illegitimate Competition Act”. Thirdly, the government should gradually leave credit rating companies privatized and only concentrate on providing a proper environment for them to practice and regulate their conduct by law. Last but not least, the government should encourage the credit rating industry open to the world and establishment of joint ventures, which will provide local companies valuable opportunities to learn from their experienced peers, especially from American ones with the longest history in this area.

Credit rating has been worldly recognized as a scientific technique, an art. But in China some credit rating companies are not trustworthy themselves. Some of them can't even keep their promises to pay debts. Some of them gave a company a higher credit score just because this company donated more money to the credit rating company.

B. liquidity risk

One way to solve the liquidity problem is to develop a secondary market for mortgages for Chinese banks. This secondary market is where banks are able to sell or securitize their mortgages. This is so-called mortgage securitization refers to the fact that banks pool and reorganize their mortgages with low liquidity but future cash flows into some sellable groups, sell them to securitization institutions which will resell them to other investors after adding guarantee to them and enhancing their credit rating. This is a process which turns illiquid mortgages into marketable assets. It is called "structured finance" in the United States and a delicate arrangement, which in fact distribute banks' risk to a large group of investors and improve the liquidity of banks.

There are many advantages for China to develop mortgage securitization. Firstly, banks need not to worry about their risky investment if they can change their illiquid mortgages into negotiable securities. Secondly, mortgage securitization enables banks to adjust the structure of their assets and liabilities anytime when market changes and thus to be more competitive. Thirdly, it enables banks to make more efficient use of their assets since banks can effectively reduce their risky assets and therefore reduce their risky assets reserves which is required the Basle Accord. Fourthly, mortgage securitization provides small-and medium-scaled banks an alternative financing source so that they can also enter into the mortgage market. Fifthly, it will enhance the development of Chinese financial market. Theoretically, stock market financing is no better nor worse than debt market financing, but a financial market with both above-mentioned financing methods is mort efficient in allocating resources. In the United States which has the most advanced financial market, the capitalization of the debt market financing is 16 times that of the stock market financing and securitized mortgages is the biggest negotiable security in the debt market and popular among institutional investors. But in China, stock market financing weighs much more than debt market financing, which adds to its financial risk. The sixth advantage of mortgage securitization is that it will decrease the mortgage cost and thus provide more financial support to homebuyers.

PBC has begun its research in mortgage securitization in 1998 and allows CCB and ICBC, the two largest morgagees, to do the feasibility study and experiments in 2000. Until now, the two banks have presented PBC three projects and they are still waiting for the approval from the central bank.

The reason that it takes such a long time for PBC to approve the trial project of mortgage securitization presented by CCB is that PBC prefers the American way of mortgage securitization, i.e. banks sell their mortgages to an independent company to be pooled and securitized, but CCB insists that the securitizer should be a department with banks, which is German way, and the securitized mortgages are still owned by banks. CCB explains that the financial environment in China is not as sophisticated as it is in the United States. But it is reported by the media that the real reason is that mortgages are so far one of the best-quality assets in Chinese banks and they are so reluctant to lose the ownership.

However, it is true Chinese government has a long way to go in terms of providing a proper environment for mortgage securitization. For example, there are not enough institutional investors, no well-established guaranteeing companies and credit rating agencies in China. There are difficulties to establish and operate SPV, the transfer of debts and the definition of “true selling”, etc. There is no law concerning mortgage securitization. Usually mortgage securitization has some preferential tax, but there is no such tax favorable policy in China, which will affect the cost of securitizing companies. There is no accounting system for mortgage securitization, too.

Therefore, it is Chinese government but not banks only to take effort at first to develop a proper environment for mortgage securitization. Firstly, the government should establish a legal framework to smoothen and regulate the operation of mortgage securitization. Secondly, the government needs to improve the tax and accounting system. Thirdly, the government can establish a national guarantee organization to provide security and insurance for securitized assets and ensure their credit score. Fourthly, the government needs to establish a nation-wide trading system to ensure the financial infrastructure. Last but not least, the government has to cultivate more institutional investors and more professionals in this specialized area by its policies.

C. interest rate risk

In order to lower the interest rate risk, it is better to apply floating rate to mortgages. But the calculating of floating rate is complicated and most customers are reluctant to accept floating rate. But applying fixed rate to mortgages will expose banks to the risk of prerepayment of loans.

Whether Fixed Rate Mortgage (FRM)-making financial institutions will experience loss or not depends on their prediction of the future rate movement trend. In an interest rate rising situation, financial institutions will make profit in the early periods. But this profit should be saved for the later periods when losses appear. In an interest rate falling situation, financial institutions should keep adequate liquidity for the losses appeared in the early periods.

Another way is to state clearly whether customers can repay the loan in advance or not, or customers can only prerepay loans within a stipulated term. In the United States, some banks charges customers if they repay their loans ahead of the agreed time in contracts.

D. collateral disposal risk

First, there should be clearly defined property rights and property rights protection laws. Without this, mortgage registration is impossible. Then banks will have a lot of difficulties to dispose collateralized houses.

Second, there should be a national mortgage registration system in case a house owner repeatedly collateralizes his house.

Third, there should be independent real estate appraising agencies. It is common practice for a bank to choose a lower one among the price estimated by appraising agencies and the sales price of the loan borrower as the mortgage loan amount. Therefore the estimated price given by appraising agencies is very important. But there would be much different estimated prices by different appraising agencies for the same house, which will expose banks to risks. So the government should formulate regulatory measures to those agencies, help to make a uniform and scientific appraising procedures for them and strictly set up the qualification for specialists work in real estate appraising areas.

Forth, we should establish a well-functioning auction system. If a borrower can't repay the loan, the bank has to dispose of the house according to the contract. But the amount of cost and speed of disposing the house would constitute a loss to the bank. Or the government could set up independent disposal guarantee organizations. If a borrower can't repay the loan, such an organization could pay the bank first and then deal with the collateral.

Fifth, the government should have the national housing security arrangement in case a borrower becomes homeless if he can't repay the loan. Banks are not charities. The government is responsible for providing cheap homes for the poor.

E. macroeconomic change

Banks should pay enough attention to the macroeconomic analysis. Like the social economy, real estate market has a development cycle that is a prosperity period and a depression period. Real estate market is also influenced by the national and local economy, population, policies and other factors. The real estate price movement makes up a risk to banks. When the real estate price drops, the collaterals value will decrease and banks will face higher risk. Therefore, it is an important measure for banks to guard against such a risk to determine a proper ratio of loan to value by forecasting the trend of the market changes. In market recession, banks can increase the ratio while in market recovery, banks must lower the ratio. To China, a country that has not experience a full market cycle, this is particularly important.

Otherwise it would be a disaster to Chinese banking industry.

Not only the first and the secondary mortgage markets are sophisticated in western countries, but also they accumulated more experience in controlling the relevant risks. First, it is urgent for Chinese banks to accumulate and improve their data bank on loans for more quantitative and standadized research. The traditional experience-based subjective risk control methods are already out of date. Western banks establish quantitative models to evaluate and manage risks, which should be the trend for Chinese banks. Second, banking industry is always easy to adopt advanced informtion technology. Banks like Chase, Bank of America and CitiBank have developed their own global credit risk exposure information system(John B. Koat, 2001). Although Chinese banks have installed computer systems, much of the mortgage information is still paper-based. It is difficult for them to recognize, evaluat and work on risks rapidly and accurately based on the information provided by electronic systems. Only when Chinese banks accumulated enough historical mortgage infromation and store them in electronic systems, Chinese banks can do the advanced risk-control researches such as LTV and mortgage risks, fixed-rate and floating-rate mortgages and their risks and other researches on macro or micro factors and default risks.

VI. Summary

Mortgage in China has a very short history of development. Chinese banks have not much experience to deal with the related risks. It is very important to them to draw lessons and experiences from those countries with a long history of mortgage first and secondary markets development, especially the United States. At the earlier stage, Chinese government should do a lot to introduce more laws, to provide a better financial infrastructure, to educate both mortgagors and mortgagees, to encourage competition and innovation and to deregulate the interest rate system.

Notes:

(1), (2) Liu Zhifeng, vice minister of National Construction Ministry, May 2002.

(3), (4), (5) People’s Bank of China, 2001.

(6) Federal Reserve System, 2001.

(7) Gu Yunchang, the vice chairman of China Real Estate Association, 2002.

(8) Wang Kongping, sina.com, 2003.

(9) China Construction Bank, 2004.

(10) Industrial Bank of China, 2004.

(11) The Federal Reserve System, 2004.

(12), (13), (14) Guangzhou Real Estate Information Center, 2004.

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