



## A Discussion on Development of China's Housing Mortgage-backed Securitization and American Experiences

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### Abstract

China's real estate market develops fast. And the demand for housing mortgage is increasing at the same time. However, because of its long period and poor liquidity, the increasing personal housing mortgage will inevitably add more risks for commercial banks in their asset-debt management. It is a must to apply the housing mortgage-backed securitization. This paper discusses the development of China's housing mortgage-backed securitization and analyzes the case in America, researching its official activities and its successful experiences, with the hope of providing with useful references for China's coming housing mortgage-backed securitization.

**Keywords:** Housing mortgage-backed securitization, Secondary mortgage market, Government interference, American experiences

### 1. The main problems in developing China's housing mortgage-backed securitization

#### *1.1 The property-right relationship is still unclear in China's real estate market*

Clear property-right is the base for both housing mortgage and mortgage-backed securitization. At present, the property-right for China's urban residents is mostly unclear. In recent years, the local government in certain area constructs some semi-commercial houses for low-income residents, such as economically affordable houses, functional houses, and cooperatively-constructed houses. For these kinds of houses, the government has partial property-right due to its investment in lands and policies. Therefore, the proportion of property-right that is hold respectively by the government, the real estate developer, and the resident is hard to define. As a result, the property-right in the house market stays in an incomplete state. Then, under the condition of betraying the contract, it is difficult to protect the interests of loaners. The long existence of unclear property-right will directly affect the demand for house mortgages in the primary market.

#### *1.2 There is short of officially guaranteed agencies in primary mortgage market and officially issuing agencies in secondary market in China, which is not good for the decrease of risks in securities*

In the primary market in America, there are two official agencies, namely Federal Housing Administration (FHA) and Veterans Administration (VA), which can provide with guarantee for mortgage loan. After the securitization, the guaranteed mortgage assets are safe and profitable, and gain more attentions from investors. In the secondary market, Federal National Mortgage Association (FNMA), Government National Mortgage Association (GNMA), and Federal Home Loan Mortgage Corporation (FHLMC) issue 98 percent of total mortgage securities. In 1993, the securities issued by the three organizations reached 878.7 billion dollars. Pure market organizations almost fail to live in the secondary market. Therefore, official credit guarantee is one of chief elements that affect the securitization of mortgage loan. However, in China, there is no officially guaranteed agency in the primary market, not mention the secondary market. It is a demanding work to construct and perfect the officially guaranteed agencies and the officially issuing agencies in the two markets in China.

#### *1.3 More restrictions on security investors block the development of securitization.*

Housing mortgage securities is a relatively optimal investment compounding. The main investors are usually organizations. In China, the government forbids annuities, common-funds, and insurance companies to buy securities because of the potential risks. In 1999, although the restrictions are looser than ever, but still strict that is not good for the housing mortgage-backed securitization. The right way is to gradually perfect the finance system, release the restrictions on organizational investors, and enhance supervision on finance.

#### *1.4 Housing mortgage-backed securitization concerns a series of taxation and accounting issues, in which China is far from perfect*

For example, in the taxation field, it is a must to avoid double taxation. In other words, the compound interests and the

pure interests obtained by the security issuer should not afford taxes at the same time. Otherwise, the profits will be killed. However, China does not have relevant regulations in this field.

## **2. The significance of developing mortgage-backed securitization (MBS) in China**

### *2.1 Decrease the operational risks in commercial banks' and increase the assets liquidity in banks*

Commercial banks face interest rate risk and liquidity risk as they issue house mortgage loans. The former is the primary risk for financial agencies, such as commercial banks, in their operations. It has the prominent characteristics of unmatched asset-and-liability period risk and connotation choice risk. The liquidity risk means the long period, lagged-behind turnover, and poor liquidity of house mortgage loans issued by commercial banks and other financial agencies. According to experiences in developed countries, as balance of house mortgage loans reaches 30 percent of total loans, banks will face assets' liquidity risk. The safety of banks' assets may be hurt. In China, the total house mortgage loans and the relative amount are small, and have greater space for further development. But in recent years, more and more individuals instead of groups choose to buy houses. The house mortgage loans issued by commercial banks tend to increase. All these factors contribute to the potential need for trading credit right and realizing asset securitization. By means of housing mortgage-backed securitization, banks' assets that are not for trade can circulate in the secondary market in form of securities, which can in a sense disperse and transfer commercial banks' risks among other investors in market.

### *2.2 Improve the operation efficiency in China's real estate market*

In order to execute the house mortgage-backed securitization, the loans issued by commercial banks must reach certain amount. However, at present in China, the house mortgage loans merely occupy 1 percent of banks' total loans. According to the experiences in countries that execute securitization, the proportion is higher than 20 percent. Therefore, banks have to properly enlarge the scale of loans in order to execute house mortgage-backed securitization. Then more house buyers can borrow money from banks. The increasing demand for houses can help to solving the imbalance issue of supply and demand, decreasing the vacancy ratio of commercial houses in real estate market. Besides, security investors usually choose houses that are active in market in order to decrease the losses caused by contract-betraying behaviors. Therefore, investors usually take house quality into consideration as they buy securities. As a result, banks will choose high-quality houses as mortgages as they provide with loans for borrowers. All these factors stimulate house buyers' need for high-quality houses, which speeds up the competition in real estate market.

### *2.3 Motivate the security market and perfect the finance market system*

On one hand, housing mortgage-backed securitization can provide with a new investment product that has low risk and stable income for the capital market, and a financial tool to drive the transformation from savings to investment, enhancing the relationship between the current market and the capital market. On the other hand, housing mortgage-backed securitization is a systematic work, concerning commercial banks, special agencies, credit ranking agencies, security companies, asset management companies and organizations, personal investors, and many other aspects. Besides, it needs for official supervision and a relatively perfect legal environment. By means of executing the securitization, these organizations and agencies can cooperate mutually and drive the perfection of finance market.

## **3. The feasibility analysis on developing house mortgage-backed securitization (MBS)**

### *3.1 MBS meets the basic demand for securitization.*

In general, the asset that is right for securitization should meet these conditions as follow. (1) The cash flow can generate as promise. And this promise is kind of contract. (2) The cash flow follows certain law and is predictable. (3) It is possible to predict the instant risk of cash flow. (4) The securitized assets should be similar. And the collected asset compounding should reach required amount. (5) The securitized asset should possess excellent quality for purchase and low credit risk. However, comparing with other kinds of loans, the house mortgage loans in China have lower risks caused by contract betraying behaviors due to the higher initial payment, reaching 30 percent of the total value. The high values of assets, the large scale of loans, the standard the loan contract, the mall loans, the quite equal payment period, and the easy-to-compound assets are all features of China's house mortgage loans. The pre-payment of loans is highly predictable, which guarantees a stable cash flow. Therefore, the house mortgage loans are in accord with the basic requirement for assets' securitization, which can be regarded as the ideal target assets in securitization.

### *3.2 To develop house mortgage-backed securitization already possesses sufficient asset support.*

Only when the house mortgage loans reach certain scale, can assets' securitization become possible. Then similar assets can form capital compounding that serves as the base for issuing securities. Since China People's Bank issued the Regulations on Individual House Guaranteed Loan Management, the individual house mortgage loans have increased greatly. Till late 1999, the business houses' mortgage loan surplus issued merely by the four state-owned commercial banks reached 12.6 billion Yuan. Comparing with the amount in early 1999, the number increases 145 percent. There into, China Construction Bank issued the most house mortgage loans, reaching 86.3 billion Yuan, increasing 94 percent

than that in 1998. And according to data in the first several months in 2000, the increasing ratio is rising. Therefore, the housing mortgage-backed securities supported by house mortgage loans have already possessed adequate asset scale and payment ability.

#### **4. The successful experiences of America**

The main control and adjustment measures adopted by American government in MBS:

The securitization of assets initially emerged in American house mortgage loan market in early 70s in 20th century. Although its history is short, the securitization of mortgage loans possesses a series of special features and advantages. Especially, American government has taken many favorable policies to support and regulate the mortgage-backed security business, insuring the capital safety of investors. The safety and liquidity of house mortgage loans have been greatly improved. The house mortgage-backed securitization market has been enlarged rapidly. It helps to liberate some financial agencies from their enormous bad assets that are caused by issuing house mortgage loans. At the same time, it provides with a creditable mid- and long-term investment tool for the security market. The government takes part in the market and helps the house mortgage market become a relatively independent and perfect market system, which is the key for the success of America in the house financial market and the operation of MBS. In order to perfect the house mortgage loan mechanism and drive the development of securitization, American government takes a series of control and adjustment measures in the house mortgage loan market.

##### *4.1 Set up multi-level adjustment institutions*

In America, there are three systems that are engaged in adjusting the house finance business.

(1) The officially guaranteed and insured institutions in primary market. In 1934, America issued the National Housing Action (NHA). Then the Federal Housing Administration (FHA) and the Veterans Administration (VA) have been formed, which can help loaners escape from the payment risks and the inflation, providing with basic conditions for the securitization of mortgage securities. (2) The federal housing loan bank system. In this system, the government serves as a guarantor who collects capitals from individuals and uses them as flowing cash for house construction and consumption. By this way, the government exerts its function of being house mortgage agencies' storage center, showing its vital effects on stabilizing the house finance system, driving the liquidity of house mortgage capitals, insuring the supply of house mortgage capitals, and adjusting the secondary mortgage market. (3) The national secondary market operation system. In America, the house mortgage market is deeply affected by the government. Its adjustment chiefly focuses on the secondary market. There are totally three secondary-market institutions in America. Till 1996, the mortgage security market balance issued by the three institutions occupies 55%-60% of the total house mortgage loans, reaching 1700 billion dollars, accounting for 89% of the total market shares in the secondary mortgage market.

##### *4.2 Constitute a perfect legal system*

In America, the appearance and development of housing mortgage loan market and its securitization are always based on laws and regulations. From 1933 to now, America has constituted a series laws and regulations, such as the Housing Mortgage Re-loan Action, the Housing Loan Action, and the Housing Action, emphasizing the greater responsibilities of government in housing development, city construction, and housing finance fields. These laws and regulations serve as the base for government supporting the house mortgage. After realizing the housing mortgage-backed securitization, America further makes up the Real Estate Investment Trust Action, the Financial Asset Securitization Investment Trust Action, and a series of laws and regulations related with the housing finance securities in order to guarantee the proper application of housing mortgage-backed securitization.

##### *4.3 Provide with favorable policy environment*

In America, the federal government provides with many favorable policies for the government-supported institutions to encourage the housing mortgage-backed securitization, including: (1) the mortgage securities issued by these institutions can free from the register and approval of the America Security Exchange Committee; (2) the Federal Reserve Bank's accounting system, the deposit trust company, and the European liquidate system can provide for these institutions' securities with services in settlement; (3) the standard mortgage-backed securities issued by these institutions are regarded as no-risk investment tools. Different financial institutions can buy or hold this kind of mortgage-backed securities without any restriction. Besides, these securities can be used as the guarantee in order to obtain loans from the Federal Reserve Bank and the Federal Home Loan Bank. According to relevant rules, the mortgage-backed securities in five-year term can be taken as the circulating assets of deposit and loan institutions; (4) their profits are free from state taxes and local taxes.

##### *4.4 Exert market's adjustment effect completely*

In the securitization of American real estate, the government shoulders a dominant responsibility in legalization and establishment of institutions, which on one hand helps to solve problems that could not be settled own by the market, and on the other hand creates favorable conditions for the development of commercial finance institutions. However,

the government neglects the effects of commercial finance institutions. As the government makes best use of different financial tools, it lays more stresses on motivating the private capitals. In general, many different institutions participate in the process of securitization. And private institutions occupy an important position. It is competition that drives the improvement of product quality and the decrease of price. Even for state-owned companies, they still operate by themselves in market. What the government provides for them is merely nominal support, instead of financial support.

## **5. The inspirations of America's successful experiences for China**

### *5.1 The government can use its powerful strengths in system transformation to drive the development of housing mortgage primary market, constructing a market base for mortgage loan.*

As the securitization's target asset, housing mortgage loans must achieve certain scale. The housing primary market, the mortgage loan market, the secondary market, and the security market are connected closely. Just as what was discussed above, American government has great effect on the primary market of housing mortgage-backed securitization. Before the securitization of housing mortgage loan in America, the house mortgage loan balance has already occupied 30 percent of GDP. Till late 2000, the proportion in China is less than 4%, far lower than England's 56%, America's 54%, or Japan's 33%, and even less than some developing countries, Malaysia's 23%, Thailand's 13%, and Philippines' 11%. At present, it is urgent to use government's powerful advantages in system transformation, driving the development of housing mortgage primary market, constructing a market base for mortgage loan. In this process, the standards for issuing house mortgage loans should be same because theoretically the standardization and regulation of mortgage conditions can serve as the base for mortgage loan compounding. And they can decrease the transaction costs. We should focus on the initial step, insuring the standard and regulated operation in the process of securitization.

### *5.2 The government should price the housing mortgage-backed securities rationally.*

Since 1997, America has priced the mortgage-backed securities by means of advance repayment model. Later, the government adopted the option-adjusted price difference to accurately price the mortgage-backed securities. Presently in China, there are no systematic studies on house mortgage loans' advance repayment behavior. Especially, there is no long-term experimental data for empirical analysis. Therefore, to price the mortgage-backed securities accurately must experience a long theoretical and practical accumulation process. On the other hand, American housing mortgage loans have many different forms, including fixed interest rate mortgage loan, changeable interest rate mortgage loan, inflating mortgage loan, fixed capital-repayment mortgage loan, fixed repayment mortgage loan, price-adjusting mortgage loan, and inverse annuity mortgage loan, what meet different needs of consumers. Today in China, there is only the changeable interest rate repayment for the housing mortgage loan. If we practice the housing mortgage-backed securitization, we should choose certain loan products that have stable cash flow to compound them and put them in market. Apparently, it is hard to predict the interest rate in the future, which will make it more difficult to price the mortgage-backed securities. Therefore, it is necessary to apply the fixed interest rate repayment way in the primary market, which can satisfy the different preferences of consumers to mortgage loans.

### *5.3 Constitute a favorable system and provide with a nice policy environment*

It chiefly refers to constitute the necessary laws and regulations for real estate securitization. In the MBS process, the initial issuer, the special carrier, and the credit-adding institution should take part in the securitization by contract. This process should be legal, independent, and clear. And many other countries execute the MBS by legalization. In America, although there are no special laws or regulations for securitization, it has a perfect legal system, including the Bankruptcy Act, the Security Act, the Security Exchange Act, the Venture Company Act, and the Trust Contract Act. Only by means of legalization, can we guarantee the proper process of MBS and its relevant real estate and financial activities. Besides, the government should provide with a nice policy environment, especially in taxation, and accounting fields, for these state-supported institutions. And the interest rate should be determined by the market mechanism, instead of being affected by the government.

### *5.4 Construct Special Purpose Vehicle (SPV) for trust investment*

In the process of housing mortgage-backed securitization, SPV is vital for its success. Therefore, the government should help to construct one or two national SPV that is independent from other financial institutions, which is the key for the success of China's housing mortgage-backed securitization. However, the legal process is complex to construct SPV. Then, according to the present situation of financial agencies, we can make the four capital management companies to shoulder some responsibilities of SPV. By this way, we can not only expedite the process of housing mortgage-backed securitization, but also find new capital resources for these capital management companies, separating their operation risks. As conditions mature, we can choose to construct independent SPV that is engaged in issuing and managing capital securities in some cities where the housing mortgage-backed securitization develops fast.

### *5.5 Regulate China's credit-ranking system*

At present, China's credit-ranking system is imperfect. Firstly, many credit-ranking institutions do not have neutral and regulate systems or organizations. Secondly, none of credit-ranking institutions is acceptable and recognized by

investors in market. Thirdly, there is universal standard asset evaluation system and scientific ranking method. The imperfect credit-ranking system will inevitably affect the development of housing mortgage-backed securities in market. Therefore, it is a must to reform present credit-ranking industry. The reform should focus on constructing neutral, and self-management credit-ranking institutions, cutting the direct interest connection between credit-ranking institutions and applicants. We should take reference from international experiences, and enhance the cooperation with world famous credit-ranking institutions, such as Standard & Poor's, and Moody's, in order to learn from their ranking technologies and management. At the same time, we can make up ranking rules in China market. Regulate the activities of domestic credit-ranking institutions according to international standards. Adopt advanced and scientific ranking methods to improve the ranking quality. Establish China credit-ranking institutions' fame and image in domestic and world capital market step by step.

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