### The Real Estate Bubble's Forming and Precaution

### FORMATION DE LA BULLE DE LA PROPRIETE IMMOBLIERE ET PRECAUTIONS

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**Abstract:** "Bubble" is the excessive growth of the fictitious capital in brief. "The real estate bubble" is one kind of the bubble, and the bubble economy taking real estate as carrier. This paper begin with concept of the bubble of the real estate, analyses the reason which can arouse the real estate bubble, from psychology of investor and speculation, etc. The paper summarize kinds of danger that it will be brought to economy once real estate foam evaporate, and has put forward some effective precautionary measures at the end of the article.

Key words: The real estate bubble, Forming reason, The damage, The precaution

**Résumé:** La « bulle » désigne de manière générale la croissance excessive du capital virtuel. La propriété immobilière est une sorte de bulle, et l'économie en bulle prend pour vecteur l'immobilier. L'article présent, débutant par le concept de la bulle dans l'immobilier, analyse les raisons qui provoquent la bulle de la proriété immobilière sous les perspectives de la psychologie des investisseurs et de la spéculation, etc. L'article résume toutes sortes de dangers qui seront entraînés une fois la bulle évanouie, et avance finalement des précautions effectives. **Mots-Clés:** bulle de la propriété immobilière, raison, dommage, précaution

### 1. THE MEANINGS OF "BUBBLE" AND "REAL ESTATE BUBBLE"

Bubble is explained briefly that it is excessive growth of the fictitious capital. There have one comparatively accurate explanation in "Ci hai " (1999 edition) " fictitious capital is excessive to increase with relevant trade expanding day by day, they are breaking away from the increase of the real capital and the growth of the real department, it is a phenomenon that the price of the financial securities and the real estate are skyrocketing, the speculative transaction active extremely. The bubble economy resides in monetary speculation, arouse the bubble boom of social economy, certainly the foam evaporates finally, cause the society to shake, even economic crash." The so-called fictitious capital here, mean that exists in the form of marketable securities, and can bring some gain to holder, for instance enterprise's stock or the bond which the country issue, etc. The fictitious capital is a foundation of forming economic bubble, when the constant lasting growth of the fictitious capital until develop into expanding excessively, the fictitious capital deviate from value of the actual capital farther and farther, form the bubble economy, causing the stock price to slump finally, the foam to evaporate, and the social economic turbulence.

"The real estate bubble " is one kind of the bubble, and the bubble economy taking real estate as carrier. The bubble phenomenon in the development of real estate, mean mainly the price of land and house is extremely high, it does not accord with the use value (the basic value of market), though value increases very high on book, but it is very difficult to be realized in fact, form a kind of bubble boom on the surface. Because the real estate is made up of the land and the appendiculate building, and the building is the products of human labor, its value is basically fixed, so the real estate bubble that we talked about usually refers to the bubble of the land price in fact. This is because the land is scarce resources, its characteristic is that elasticity of supply is small, the demand elasticity is large, when the land has a great demand, it can't make supply and demand reach the balance within some time, will cause the skyrocketing of the price of land. When the use value of the land breaks away from its real value farther and farther, will form the bubble economy, once the foam evaporates, the price of land slumps will bring enormous harm to social economy.

In modern market economy, economic bubble will

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exist in the economic activity for a long time, have its objective cause, it is mainly determined by dual character on its function. On one hand, because of the existence of economic bubble, make people produce optimistic expectancy to the market, help capital to be centralized, promote the competition, enliven the market, and bring about a prosperous economy. On the other hand, we must realize that unreal factor and speculative factor existing in economic bubble have a negative consequence on economic development.

### 2. THE REAL ESTATE BUBBLE'S FORM

In the course of development of the real estate, we should admit that there really have some economic bubble, it behave mainly<sup>2</sup>:

### **2.1** The bubble of the expanding of land price.

The price of land is determined by the limited of the supply and the limitlessly of the demand, furthermore, it is not overall in regulations about land market for the government, make the land market present a large amount of speculation propagation, will present the rising emptily of the price of land, such rising emptily is the economic bubble. If land price break away from its real value, at double, even dozens of times in a short time skyrocket, there will develop into the bubble economy . It is a distinct illustration like as the real estate price of Japan booms. The indexes of price of land of six major cities in Japan, have gone up by 5 times during 10 years in the eighties of last century, the total value of market value of the price of land is up to 4,000,000 billion Japanese yen, is equivalent to 4 times of the total value of the American price of land, the land unit price is 100 times of U.S.A. The price of land slumped after 1991, the bubble evaporated, caused the enormous economic losses. The rising emptily of the land price is a bubble boom, price of land doesn't support a long time, the bubble can evaporate when it develop into certain stage.

### 2.2 The bubble of the vacant house

In the supply-demand relationship of real estate market, the supply of commodity apartment exceeds market demand, that part which the supply exceeds the department increases belongs to the rising emptily, it can produce a large amount of sinking cost, thus the bubble is produced. According to the international experience data in common use, the vacancy rate of commodity apartment is in less than 10%, such economic bubble is normal. If it is too many to surmount, cause the serious supply surplus, form the bubble economy, causing the price of house to fall sharply, the developer is given enormous losses and even gone bankrupt, the rate of unemployment rises, economy confusion, and social turbulence.

### 2.3 The bubble of real estate investment

Generalization, the increase rate of investment of the real estate should be suitable for the consumption rate of increase of the real estate, strive to make the balance of the supply-demand relationship. The real estate plays a role in promoting the economy development as the engine driving; it has a very important function. As developing country being at economic growth stage, the all trades wait to revitalize, the increase rate of investment of the real estate is slightly bigger than consumption rate of increase is to form the market situation supply exceeds demand slightly, it is favorable to promoting the development of real estate and stimulating the economic growth. Only when real estate investment expands excessively, the commodity apartment is unsold seriously; it is difficult to return the loan, causing the financial crisis, just form the bubble economy evaporates. Thailand was one in the Southeast Asian financial crisis in 1997.

### 2.4 The bubble of the rising emptily of the house price.

The price of the land nearly accounted for 1/3 in the development of real estate; so there have a close relationship between the bubble of the house price and bubble of land price. In addition, the developer is in order to seek exorbitant profit during developing the real estate, adopt some unethical means, for example "fix the price jointly ", "fry property under construction", etc. drive up the house price artificially, these can will form economic bubble too. If price of house exceed solvency of consumer farther, the price-income ratio of the house is too high, it also can arise the bubble economy of the real estate. In 1991-1993, real estate price of Hainan rose violently in China. The price of each square meter of the apartment was more than 1000 yuan in 1991, can sell to more than 3000 yuan by 1992. Some prices of commodity apartment even top 10000 yuan. The rising emptily of house price will cause the outburst of the real estate bubble finally.

<sup>&</sup>lt;sup>2</sup> Tao ManDe, Ye QingHe, Huang Cheng. 'Thinking of bubble question of Jiangxi's real estate market'. *Jiangxi social science* 2003, 5.

### 3. REASONS OF THE REAL ESTATE BUBBLE

#### 3.1 Psychology anticipation

Anticipation is a kind of judgment on the future while people participating in the economic activity, it is a prediction about future value of economic variable that is related about decision-making, is a complicated psychology activity. Anticipation is prediction about the assets price in the future, but the future is not confirmed, and that it is different to investor's attitude towards risk, so when investors carry on the economic behavior, the result produced is different too. On the real estate market, consumers' expectancy is the expectancy to the price in fact. From bubble forming, inflation to evaporating, investor has two obviously same characteristics to expectancy on price of the estate. One is anticipated homogeneity. Namely the view of investor's trend on the assets price is the same, they have the same anticipation. When real estate investors hold the upward view to the price of the real estate in a regular period, and this attitude on the price can become the whole market faith quickly, this is the foundation that the real estate bubble produces. The other is the positive feedback of the demand and price. When the bubble have shaped, the higher the people expect on the price of the real estate, the bigger the speculator anticipate on the capital earning ratio, so increase people's purchase to the house and even hoard, in order to shoot off when the price is higher. While the price is running up, the demand of the real estate increases. The increase of such demand caused by expectancy of the psychology, has caused the bubble boom of the market, thus cause the expectancy of rising in price further, make the price of the real estate expand for the bubble finally.

### **3.2 Excessive speculations**

The demands for the real estate of people can generally be summed up in the consumption demand of life, investment demand and speculation demand. <sup>3</sup>Consumption demand and investment demand are true demands; the speculation demand is the falsity demand. True demand take place in material economic field, this demand arouse by the life and reproduce. Its change will cause the change of the relative price, and then cause the reallocation of resources. And the false demand is a demand that is only in order to seek the price difference; it can't create value by itself. To speculator, they are not interested in the use and the payoff of real estate itself, just hope to obtain the income of price difference as many as possible while the house price is surging. Real

estate market is easy to produce speculation because the land is rare. There is a word in the real estate: gaining the land means making the money. The investment on the real estate turns into depositing the land in a certain degree. The more the speculation is, the faster the bubble form.

#### 3.3 Herding behavior.

The herding behavior is determined by broker's incomplete rational expectation and speculation behavior. Herding behavior theory think that there are always a group of immature participants in the financial market, they do not have enough information source, and can't observe accurate information too, the formation which they make the expectation on the future are mainly relay on the other people's behavior and expectation at the market, thus through imitating behavior of others to choose own behavior. The herding behavior is a market unconscious at the same time. The speculator buy the financial asset doesn't mean that they think the price of the asset is high, but they expect that one people will buy the asset at higher price. A famous Japanese economist, while describing the sharp rising in the price of land and stock, which began in 1988 in the Japan, wrote, "If we do not consider the production of ' the bubble ', it is unable to explain. Namely ' the cart of the motorcade ' begins to walk in the street; a lot of people follow closely. Since there are so many people with behind, namely people are participating in buying the land and stock constantly.

#### 3.4 The land market out of balance

The land resource is rare resources, with the development of economy of our country; the increasing of population, the demands of people for the land will be greater and greater. In real estate market, with the constant growth of investment and purchase house demand, the land for development area of the building being more and more in short supply. On one hand, land market demand is expanding constantly, and on the other hand, because the land is scarce resource, the market is unable to offer enough supply in a short time, thus supply and demand is unable to reach the balance. When supply and demand is imbalance, the price of land will rise. And at this moment, driven by the profit-making demand, there will present the hoarding of land, people regard land obtained as the profit-making means, carry on speculating, and this phenomenon has aggravated the imbalance of supply and demand of the land market further, enabled the price of land to break away from the use value of the land, produce bubble.

<sup>&</sup>lt;sup>3</sup> Zhu YuLiang, Ma JianHong. 'The Analysis on the cause of the real estate bubble'. *Chinese real estate*,1999, 9.

### 3.5 banking systems not perfect

The real estate is a dense trade of the fund: the development of real estate must need rich fund. The capital sources of real estate enterprises are generally made up of own fund, bank loan and other capital sources, etc., but because real estate investment has the characteristics that the long turn over time, and the slow returns, it certainly will be difficult to be bear by the real estate developer alone, so to a great extent, the fund used at the development of real estate is coming from the bank loan for the most part. Generally speaking, the fund of development of real estate is counted in millions, even hundreds of millions vuan, and because of the characteristic of its own fund circulation, the policy of various countries governments have a certain degree restrict in the loan of development of real estate. However, in a situation that the banking system is imperfect, because the financial enterprise's blind pursuit market shares scale of credit, they will neglect the examination of the borrowing enterprise or the personal credit, following and investigating; will underestimate the potential risk of the investment project of the real estate. The statistics show, the rates in debt of real estate enterprises of our country have exceeded 60% at present, in addition, the mortgage that individual lends money, the rate in debt of the whole bank has exceeded 67%, this kind of debt risk is often difficult to be perceived when the price of the real estate raises up, and the market value of mortgage is soaring constantly, but once go wrong, the risk of the real estate will be transformed into a risk of the bank. The involving of a large amount of bank fund has accelerated the inflation of the assets price and production of the bubble.

## **3.6** The misplay of the government intervening

Because the real estate has very great pulling functions to the national economy, government's intervention to the real estate has always been much more than other industries. From urban planning to the writing replay of the land, from interest rate change to the tax policy, from direct investing to the indirect investment in the form of transferring, government influence the development of the real estate market all the time. Like function of the market mechanism, the government's intervention is not omnipotent; he will be producing two kinds of different effects too. The real estate is regarded as the basic industry, have high dependence with a great deal of industries, and this means not only its own scale of investment is great in real estate, but also its multiplier effect is very great. If the government adjusts and controls aptly, will drive the development of the whole industry chain that related to real estate, promote the economic prosperity. However, when the government utilizes one's own right in the hand, serve for realizing its own short-term political goal, will present the government interference fault unavoidably. The local government often gets involved in the real estate market directly, intervene the decision of the responsible institution, absorb investment with land allocating and expenses of taxation; transfer the Examine, approve and plan right of land to a lower place excessively, break the plan unprincipled, not the develop according to planning, but the plan walks after the develop. Like this very apt to cause real estate market to be confused, such negative effects as overexploitation, etc. when the development in real estate violate law of value and market rule, there will be bubble, while the bubble evaporated, because of its negative effects, it can involve other relevant trades too.

In addition, a lot of foams relate to swindle too, in addition in the last few years, a lot of hot money and overseas idle fund gets involved to the real estate has become one form factor of the bubble.

### 4. DANGERS OF THE REAL ESTATE BUBBLE

# 4.1 The bubble of the real estate has suppressed the development of other industries

Though the existence of the bubble of the real estate is a kind of bubble boom, but it means there is higher investment repayment in a short time. During bubble economy, a large amount of fund is gathered to the real estate, speculative activities are rampant.<sup>4</sup> Under the attraction of the great amount of profit, Enterprises expand the investment in the real estate market through loan money from such financial institutions as the bank, etc. A large number of funds flow into real estate trades, will make other productive trades lack enough capital source; have contained the fast development of other industries to a certain extent. In addition, as the leading industry, the real estates have driven the fast development of the relevant trades such as steel, cement. The real estate is in close relation with construction industry, the relation between real estate and other trades can be reflected from the relation between construction and other trades directly. The development of the real estate has driven the development of the construction directly, 70% of fabrication cost of the building products is the value that the construction material shift, main material consumption of the construction accounts for the annual total consumption of various kinds of main material is: 25% of steel, 40% of timber, 70% of glass, 70% of cement, 25% of plastic products, 80% of traffic volume. During the course of

<sup>&</sup>lt;sup>4</sup> Liu YingHuang. 'The precaution of the real estate bubble'. *Fujian Building*, 2004, 4.

bubble expanding, the price of the real estate goes up, the building construction amount runs up, the demand for such raw materials as the steel, cement, etc. is heightened, this cause the price of these materials to go up sharply, and have brought the negative effect on the development of other industries. The amount of the increase of the price of steel is up to 28% in 2003; the main reason is that the increase of steel for building is too fast. This, to needing steel as a lot of manufacturing companies of the raw materials too, steel price's rising cause very great losses for many industries, especially exporting type-manufacturing company, because the foreign steel has not risen in price. Once the real estate bubble evaporates, bring the deadly blow on the relevant industries.

### **4.2 Real estate bubble bring heavy negative effects to economy**

When the bubble of the real estate broken, the price of land and room slump, people's assets will shrink, private consumption fall rapidly, the whole economy will sink into the state of declining, bring the heavy negative wealth effect to the economy. After the Hong Kong real estate bubble of 1997, Hong Kong economy presented the negative growth, which is the only one of its kind for decades, in 1998; The rate of unemployment rose to 5% of 1998 from 2.5% of 1997; Total volume of retail sales and consumption drop by a wide margin; The value-added of the real estate dropped from 135,650 million Hong Kong dollars in 1997 to 81,130 million Hong Kong dollars in 2002, the fall was up to 40%; The proportion of value-added of the real estate to GDP drops from 10.7% of 1997 to 6.13% in 2002; The price of the building begins to drop from the highest peak of 1999 continuously, the amount of decrease has been up to 65% totally for the past 6 years, Hong Kong people's wealth evaporates 2,200 billion yuan.

### **4.3** The real estate bubble's break gives the great impact to the financial system

Because the fund of the real estate was offered by such financial institutions as the bank, etc., so after bubble broken, the bank fund that invest to the real estate will face danger that can not get back. In addition, business of the loan for purchasing house has all been leading by the bank all the time, but because financial mechanism of our country is imperfect, they have no restrict examining system to personal credit and refund ability, etc., when the bubble of the real estate breaks, it will cause the non-performing loan of the bank to increase sharply. Most house purchasers are the mortgage of high price, once the bubble breaks, the house becomes the assets of shouldering, a lot of people will get out the house, what the bank received is the house devalued After the bubble of the real estate breaks, some loans of the bank will become bad debt, dormant account, all these will impact the whole financial system directly and rapidly. 1992-1993, in the" real estate tide " and the " hoarding land tide", in the financial institution's more than 3000 billion non-performing assets, the real estate accounted for 35.4%, have caused a large number of bad accounts, dormant account to the bank. And for example, in the 1990s among the real estate bubble of Malaysia, bank fund got involved in the real estate trade in a large amount too, before financial crisis erupt, the loan that financial institution bring to the real estate is 30% of their total loan, the real estate has played the function of adding fuel to the Malaysian financial crisis.

### 5. PRECAUTIONS AGAINST THE RISK OF THE REAL ESTATE BUBBLE

## 5.1 Strengthens land management, improve the land tax

The land is the foundation of real estate; through the rational planning of land utilization, scale and structure of real estate market can be controlled effectively. The government should control the unreasonable rise of the price of commercial apartment through the adjustment of land resource supply, keep rational supply and the proportion of all kinds of land supplying according to the situation of markets of the real estate, implement the land sell competitive bidding system, control the too high price of land of some cities. Land biding not simply means the person who give the higher price will win, government can diced the real estate enterprise according a synthesis index, which including the qualification of enterprises, past development achievement, land service orientation, the market prospects and so on. To the development of the top-grade house, the government should examine and approve the land strictly, control the building of the top-grade room in the rational range of the urbanization process, so as not to lead to the new overstock, the bubble that cause by the unbalance structure.

In addition, while the real estate developer carried on development of real estate, the use of land should be supervised. Government should monitor the develop progress, tax the unit or individual who hasn't develop or delay the develop progress on purpose within prescribed time-limit, for example the tax of vacant, land retain tax etc.; Strengthen levy of the land value-added tax at the same time, should levy tax strictly to the value-added part in the land trade that is transferred many times over a period. Besides levy the land value-added tax, should also restrain the land transfer frequency strictly; reduce the land speculation behavior in the real estate market. Evade the behavior of speculating at each stage, for example, occupying, using, transferring, incoming and so on, let tax play the role of resource distribution, guarantee the sound development of the real estate market.

# **5.2 Standardize government's function;** strengthen the regulation and control of the real estate market

The government can play the regulating action when the market does not work; it is a leading department that guarantees economic sound development. But the government is influenced by external cause and internal cause; it is apt not to work, too. The real estate market as leading industry of economic development, in the controlling of the development of the real estate market, sometimes because of the driving of one's own interests, the government often only pay attention to the total GDP amount for the moment, and make the structure of the whole industry unbalance, produce the hidden danger of economic development, so should standardize the government's behavior. The government should strengthen the power of control on land market at first, proceed from angle of whole development of the city, on the basis of fully considering the relation of the supply and demand of the real estate market and land resource, using the scientific means, make a advance measure on the land quantity that used for developing every year, then set up long-term, reasonable land supply plan, on this basis, thus suppress the emergence of the bubble of the real estate from source. The government should be according to the "inviting", "auctioning", "hanging" form strictly in the course of auction of the land, carry on market operation, stop "dark case " operate firmly.

In addition, in order to adjust the structure of real estate market, government can also require the use of the land, stipulate clearly which are used in the construction of top-grade villa, which must be used in the construction of low-cost housing, and use some financial measures, such as, improve the loan interest rate of the top-grade housing, offer the preferential policy of reducing or remitting the taxes etc. to enterprises building economic house for poor people, to reach the equilibrium of supply and demand of the real estate market, and to avoid the phenomenon which appears: the vacancy rate of commercial apartment is high because of unreasonable development, but at the same time mostly ordinary people still can not afford room.

## 5.3 Strengthen financial supervision, widen the financing channel

The most part fund which promoting the bubble of the real estate to produce, flow out from the bank definitely. So, should strengthen the supervision of the bank and control the venture capital from source. At present, because the banking system of our country is still imperfect, we have not set up one whole financial institution system, which includes the real estate financial institution of the policy and the real estate financial institution of the commercial, loan creating institution and investment institution, guarantee institution or guaranteeing institution. Because of the shortage of supervision to the real estate financial, it's very apt to cause a large number of credit funds flow into the unproductive department and cause bubble. The bank should take the scrupulous attitude on the loan, stipulate the proportion of the loan of the real estate and secured loan financing of the real estate strictly, and examine the condition of the secured loan of the real estate strictly. For the real estate developers whose own fund is lower than 30%, bank should reduce its amount of loan, even should refuse the borrowed money. In secured loan of purchasing house, should examine their house-purchase purpose strictly, for the speculator who already have own houses, still want to purchase second or even more house, bank should proper to raise the borrowed money interest, too.

The real estate is one industry of high risk; once its fund chain ruptured it may cause a lot of economic questions, so should adopt multi-channel financing in the aspect of the real estate fund, to disperse the risk of the fund, and should adopt the market-base financing which impel investors to undertake industry's risk directly. The key of widening enterprise's financing channel of the real estate lies in developing market-based direct financing.<sup>5</sup> By the look of international experience, there can be various forms to develop capital market-base financing. Besides that real estate enterprises issue the corporate bond and financing through the stock market, still including house purchaser and developer build the room in partnership which with nature of the stock, the real estate investment funds which allow the housing loan of the bank to transfer and circulate at the debt market and the real estate investment with entrust.

## 5.4 Sets up the early warning system of real estate bubble

To avoid the production of the real estate bubble, the government must set up the complete early warning system of economy. The early warning system of economy finds out some basic indexes that can reflect the market trend through studying the fluctuation and law of the macro economy, and through the control of these indexes, to dispose the market resources reasonably. Because the real estate bubble of Japan is

<sup>&</sup>lt;sup>5</sup> Li WeiQing. 'The question of the real estate of our country and the impact on real estate credit'. *Transaction of University of Business & Economics of Hebei*, 2004, 3.

representative, it can achieve the purpose of pre-warning through comparing with some indexes of this country in actual operation.

1st. The ratio of the theory land price and the real land price. In the development of real estate of our country, the price of land occupies very large proportion in the development of real estate, if don't control, it's very easy to produce land price bubble. From 1985 to 1990, in the Tokyo area, the ratio of the reasonable house land price upward rate and the market price upward rate is 17.7%, at the same time, the ratio of the theory price of commercial land upward rate and the practice price upward rate of the commercial land is 20.9%, this two price upward rate's enormous deviation reflect the existence of the foam.

2nd. The Ratio of the real estate price upward rate and the GDP increase rate. 1987—1990, in the expanding stage of Japanese real estate bubble, the average of this index was 3.3, if this index of the real estate of our country is close to this number, should pay enough attention at it.

3rd. The ratio of the increase rate of the real estate loan and the increase rate of the GDP. One of the important reasons why Japanese real estate bubble produced is that credit is expanded excessively. From 1987 to 1990, the average account of the Japanese real estate loan that has not repaid is 177% of GDP. Because there is the behavior of lending money to the real estate trade blindly exits in our countries present financial industry, should strengthen the control of this index.

## 5.5 Disclose the market information; make the real estate market run transparently

The origin of the real estate bubble is the asymmetric

information after all. Asymmetric Information, not merely twist the normal response to the supply-demand relationship of the real estate of the market, and mislead consumers to make the wrong value choice, make gamble and propagandizing to prevail, the market order becomes confused. Should announce information of the real estate market regularly; enable consumers to have a roughly understanding to the trend of the market. The content of information should include some basic data related to real estate market, such as recent land quantity. vacancy rate of commercial apartment, house price, the real estate development item that has already sanctioned, etc. To the building that are already sold, real estate enterprises should disclose the sales situation truly, for the behavior of deceiving the buyer, once been found, should punish sternly, and corresponding, set some excellence real estate enterprise.

### 6. CONCLUSION

Though whether there is bubble in real estate market of our country has not a precise conclusion, but surely, the excessive real estate bubble is disadvantageous to the economic development, Japan has not totally resumed from the real estate bubble in the 1990s last century yet. As a developing country, China should watch out for the emergence of the bubble of the real estate, not only should study the theory of the real estate bubble, but also should combine the national conditions and development characteristic, to make out the rational measures of defending.

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