

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics



Bachelor Thesis

Impact of Real Estate Market on China's Economy

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

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Impact of Real Estate Market on China's Economy

Objectives of thesis

The aim of the bachelor thesis is to evaluate an impact of real estate market in China. The thesis aims to reveal, if there is a bubble in the real estate market and which impact it has on economic and social and social situation in the country.

Methodology

The thesis consists of two theoretical and practical part. Theoretical part describes real estate markets and their specifics in general based on study of literature and other relevant information sources. Practical part deals with an analysis of the situation in China. This will be done on secondary data analysis. Next steps will be a synthesis of the results and conclusion.

The proposed extent of the thesis

30 – 40 pages

Keywords

China, China economic, real estate, bubble , structure

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BAILY, M N. – FRIEDMAN, P. *Macroeconomics, financial markets, and the international sector*. Homewood: Irwin, 1991. ISBN 0-256-03339-0.

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Declaration

I declare that I have worked on my bachelor thesis titled " Impact of Real Estate Market on China's Economy " by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on date of submission

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Impact of Real Estate Market on China's Economy

Abstract

Since the beginning of 2015, China's housing prices have been rising rapidly. The question is whether economic fundamentals support this. China's booming housing market itself does not directly attract people's attention, but when the housing boom (locally) turns into a bubble, once the elastic limit is reached, the bubble will become a problem, and the bubble has some of the common characteristics. The real estate bubble is a continuous deviation of the real estate prices from their basic values. It is an economic phenomenon that has a serious impact on individuals, society, and macroeconomic operations. There are many reasons for the formation and development of the real estate bubble. After decades of rapid growth, Japan experienced an economic crisis in the early 1990s, and it has not yet emerged from the its shadow This article will further discuss the real estate bubble and comparison of risk prevention and control in China on the basis of summarizing the generation and the bursting of the Japanese economic bubble.

Keywords: China, China economic, real estate, bubble , structure

Contents

1.0 Introduction	10
2.0. Objectives and Methodology.....	11
2.1. Objectives.....	11
2.2. Methodology.....	11
3.0. Literature Review.....	11
3.The China's economy and how real estate essentialize to China's economy	11
3.1 Real estate bubble.....	12
4.0 Practical part	13
4.1 The reasons for the real estate bubble and the demand for economic transformation.....	13
4.11 Real estate bubble and economic bubble carrier	13
4.12 Objective evaluation of economic bubbles.....	13
4.2.The reason of China’s real estate bubble.....	14
4.21 The dual characteristics of the real estate market and the characteristics of real estate as virtual assets are main cause of the real estate bubble	14
4.22 China's currency oversupply.....	15
4.23 The supply and demand of real estate is an essential internal factor in the formation of the real estate bubble	15

4.24 Market housing prices are rising abnormally and Unreasonable housing supply structure	19
4.25 Land supply, monopoly and land fiscal policy are the institutional basis for the real estate bubble.....	20
4.26 The psychological factors and psychological expectations of buyers are the internal and dynamic mechanism for the real estate bubbles.....	22
4.27 Loose Bank Credit Policy.....	23
4.3.The transformation of China’s Economic structure from the Real Estate Bubble.....	23
4.31 Impact of the housing bubble burst	23
4.32 How to handle the relationship between state investment and private investment	25
4.33 Reform of the National Income Distribution Mechanism	25
4.34 Gradually digest the excess capacity generated by the housing bubble	26
5 Results and Discussion.....	27
5.1 Does China have a housing market bubble?.....	27
5.1 On the comparison between the Chinese real estate bubble and the Japanese bubble.....	28
5.11Japan's asset bubble in the 1990s	28
5.12 An influx of international hot money.....	29
5.13Two equally similar aging countries.....	29

5.2.What China can learn from the Japan	31
5.21 Vigorously develop the housing rental market	31
5.22 Enhanced continuity and stability of monetary and financial policies .	31
5.3 Promote the balance of land supply and demand	32
5.4Establish a long-term mechanism for the real estate market	32
5.5How JAPAN’S RESPONSE TO THE RECENT FINANCIAL CRISIS	32
6 Conclusion	33
7 References	34

List of Figures

Figure 1The contribution of real estate development investment to economic growth	12
Figure 2 urban population as a percentage of total population	17
Figure 3 Housing Vacancy Rates by City Tier (2017)	18
Figure 4 Land Finance	22
Figure 5Affordability in Chinese tier 1 cities e 1	27
Figure 6 Demographics of Japan 1	29
Figure 7 China’s Demographic Reversal of Young and Old Populations.....	30

List of Tables

Table 1 Chinese city tier system

List of abbreviations

CNN : Cable News Network

GDP: Gross domestic product

WTO: World Trade Organization

M2: Money supply

PBOC: The People's Bank of China

1.0 Introduction

Since the beginning of 2015 China's housing prices have been rising skyrocket. (GaoWei, 2020) The question is whether economic fundamentals support this. China's booming housing market itself does not directly attract people's attention, but when the housing boom (local) turns into a bubble, once the elastic limit is reached, the bubble will become a problem. The bubble has common characteristics. An unusually high affordability index, which indicates that housing costs are on average much higher than other major cities such as London. However, it should be pointed out that the financing of real estate in China is also very different from continental Europe and the United States, because it is based on a broader wealth base and also includes a large amount of gray income. In addition, some land in Shanghai was even sold at a price more than three times the average price in Manhattan . Recently, in an exclusive interview with CNN, Chinese real estate tycoon **Wang Jianlin** (Jianlin, 2021)¹warned that the situation in the Chinese real estate market is "the biggest bubble in history." One can also argue that high price increases are justified by economic fundamentals, such as sustained urbanization rates, rising disposable incomes, and cultural values that are conducive to property. (al, 2016) recently believed that China's strong demand for real estate may indicate that current prices are sustainable. In fact, the Chinese housing market has experienced soaring house prices before. Contrary to past predictions, the market has never collapsed in recent history. The analysis assessment shown below whether the current situation is healthy and the potential risks to the Chinese economy in the context of the local real estate bubble.

¹ He is the founder of Dalian Wanda Group, China's largest real estate development company, and the world's largest movie theater operator.

2.0. Objectives and Methodology

2.1. Objectives

The aim of the bachelor thesis is to evaluate an impact of real estate market in China. The thesis aims to reveal, if there is a bubble in the real estate market and what impact it has on economic and social and social situation in the country.

2.2. Methodology

The thesis consists of two theoretical and practical parts. The theoretical part describes real estate markets and their specifics in general based on study of literature and other relevant information sources. The practical part deals with an analysis of the situation in China. This will be done on secondary data analysis. Next steps will be a synthesis of the results and conclusion.

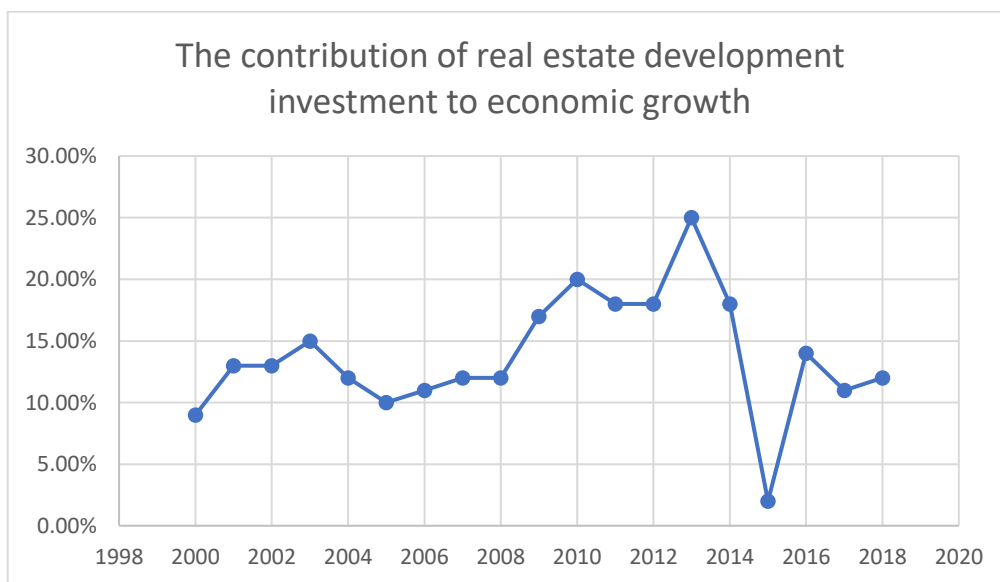
3.0. Literature Review

3.The China's economy and how real estate essentialize to China's economy

The People's Republic of China adopted a **planned economy**² model in the early days of the founding of the People's Republic of China. After reform and opening up, it transformed into a socialist market economy. Since the 1980s, China's GDP has grown at an average annual rate of 10%. (Anon., 2021) In 2001, China joined the WTO, integrated into the world economic system, and vigorously developed export trade. In 2010, the total GDP exceeded Japan, creating a world-renowned Chinese economic miracle. The GDP in 2019 exceeded **US\$14 trillion**, (Anon., 2021) and the per capita GDP was **US\$10,276**. (Anon., 2021) It is the second largest economy in the world after the United States, and the only country in the world with a population of over 1 billion and a per capita GDP exceeding **10,000 US dollars**. (Anon., 2021) It is one of the countries with the fastest economic growth. China has now become the world's

² A planned economy is a type of economic system where investment, production and the allocation of capital goods takes place according to economy-wide economic plans and production plans. A planned economy may use centralized, decentralized, participatory or Soviet-type forms of economic planning.

largest exporter and second largest importer, and its influence on the world economy is increasing. In 2020, affected by the global new crown epidemic, most countries will experience negative growth, and China has become the only country with positive economic growth among the world's major economies. According to the GDP data demonstrated the real estate play an essential role the economic ,and below graphic (see Figure 1) indicated the housing of the Chinese people is closely related to economic growth, and each year's real estate investment has a greater stimulating effect on economic growth. Except for the lowest point of 2% (see below figure)in 2015, real estate investment has accounted for more than 10% of GDP in the past 20 years, which is one of the core engines of China's economic growth.



*Figure 1*The contribution of real estate development investment to economic growth

Source: 17th Report on Urban Competitiveness in China

3.1 Real estate bubble

The real estate bubble refers to the continuous deviation of real estate prices from its basic value, that is, an economic phenomenon in which real estate prices are outside the basic value of real estate, which has a relatively serious impact on individuals, society and macroeconomic operations. In other words, the real estate bubble is an economic bubble

attached to the carrier of real estate. If the real estate price just deviates from the normal basic value, the real estate bubble is small and it is not obvious; when the real estate price rises sharply, the higher the real estate price, the further away from the normal basic value, that is, the larger the real estate bubble

4.0 Practical part

4.1 The reasons for the real estate bubble and the demand for economic transformation

4.11 Real estate bubble and economic bubble carrier

An economic bubble or asset bubble is a situation in which asset prices appear to be based on implausible or inconsistent views about the future, which is an economic phenomenon existing in Chinese society. In other words, it's a deviation of the asset price from its basic value. Specifically speaking, it refers to the unanticipated increase in the price of assets in a continuous process, so that people have the expectation that the price will continue to increase, thus attracting new buyers to join. Having the increasing price, the market price of assets is deviated from the market which its intrinsic normal value.

There are many economic bubbles in real economic life, and each economic bubble has its corresponding carrier. The economic bubble has a wide range of carriers, including stocks, bonds, real estate, artworks and so on. Since real estate has a very long shelf life and is not consumed during consumption, prices fluctuate frequently throughout its life cycle, and supply is limited, and there is a large gap between supply and demand. These factors make real estate the most important carrier of economic bubbles in the social economy.

4.12 Objective evaluation of economic bubbles

Economic bubbles are ubiquitous in life and always exist in the process of economic development. Because of the lack of sufficient understanding of economic bubbles, the

majority of the people in society are easily paranoid when it comes to bubbles. In fact, we should look at economic bubbles in a comprehensive manner; there are differences in the size of bubbles. When the economic bubble is within a reasonable range, the bubble is beneficial to economic development to a certain extent, can stimulate and promote economic development, and it can even be said to be within a reasonable range. Bubbles are the lubricant and engine of economic development; however, when economic bubbles expand rapidly and continue to accumulate, and expand to a relatively serious degree, they will have extremely negative effects on society and the economy, and even lead to economic crisis in society. (Pittis, 2013)

4.2.The reason of China's real estate bubble

4.21 The dual characteristics of the real estate market and the characteristics of real estate as virtual assets are main cause of the real estate bubble

The dual characteristics of the real estate market and the characteristics of real estate as virtual assets are main reason for the real estate bubble

Real estate is not only a durable consumer product, but also financial investment. It has investment and speculation value, which is different from ordinary commodities. People's demand for real estate can be divided into investment demand, speculative demand and consumer demand. Among them, investment demand and consumer demand occur in the real economy, while speculative demand occurs in the virtual economy, which will cause the price to deviate from the market price and soar. Real estate speculation means that people buy a building not to live but to resell it at a higher price for a short term profit, but to resell it for short-term benefits. Appropriate real estate speculation can invigorate the market, facilitate the effective allocation of resources, and promote economic development. However, excessive real estate speculation is harmful to the entire real estate industry. Excessive real estate investment opportunities lead to false prosperity of the entire industry, causing great price fluctuations, and ultimately forming a bubble economy

China entered the Internet era in 1998, but for real estate has not entered the Internet era. Under the new normal, real estate has shifted from the manufacturing to service industries. Up to now, the number of Internet users has reached more than **988.99 million**. (Thomala,

2021) This is a huge consumer group, which makes various real estate companies start to pay attention to online marketing as a means, which breaks the traditional real estate marketing model. Excessive speculative demand is the direct cause of the real estate bubble. Rising real estate prices will increase speculative demand for real estate, which will further increase housing prices until the real estate bubble bursts. However, as the economy recovers again, it again generate high speculative demand, rising housing prices, creating a large number of real estate bubbles, and finally forming Vicious circle .

4.22 China's currency oversupply

How serious is China's currency over-issuance? In March 2013, China's M2³ exceeded **100 trillion**, (China, 2021) and by January 2020, M2 stood at **200 trillion** US dollars. (China, 2021) In less than 7 years, M2 has doubled. The scale of China's M2 is the largest in the world. One of the major reasons is the real estate bubble, and the decline in purchasing power. There are problems with China's economic growth method. European and American countries mainly rely on private consumption and investment to drive the economy, while China relies on real estate and infrastructure investment, which requires a large amount of credit funds to invest in real estate and infrastructure. However, in addition to the real estate and infrastructure fields, credit funds are likely to overflow into the commodity market. What are the main points of China's currency oversupply? There are two main points: First, there are hidden dangers in Chinese economic growth mode. Relying on exports and fixed asset investment (real estate + infrastructure investment) to stimulate the economy, in addition to the low quality of GDP growth, can also easily push up the inflation rate and asset bubbles. (PingZhang, 2020)

4.23 The supply and demand of real estate is an essential internal factor in the formation of the real estate bubble

The theory of supply-demand relationship is that when supply is greater than demand, the price of goods will fall; when supply is less than demand, the price of goods will rise. The

³ M2) refers to the cash circulating outside the banking system plus corporate deposits, resident savings deposits and other deposits. It includes all forms of currency that may become real purchasing power. It usually reflects changes in social aggregate demand and future inflationary pressures. . In recent years, many countries have adopted M2 as the target of money supply regulation.

supply of real estate is closely related to the supply of land, and land has characteristics that are different from ordinary commodities, namely, monopoly, exclusivity and scarcity of possession. In economic life, the smaller the supply elasticity of the factor, the faster its price will increase. Among all the production factors, the supply elasticity of land is the smallest, hence the price of land fluctuated the most. (Mankiw)

On the one hand, the rigid demand for real estate has been completely released with the implementation of China's housing reform policy, with the improvement of urbanization and Chinese has the inherent special bonds with new housing, China's real estate market started to change in the year **1988**, (Man, 2011) when major urban housing reforms intended to commercialize housing according to the demands of a socialist planned economy were initiated. Since then, housing prices have taken off (Figure 2). making the demand for real estate of Chinese residents increasingly strong. Especially in recent years, under the dual influence of the expectation of future inflation and the consumer preference of " buy when the prices are going up instead of going down " principals many potential demands have been stimulated into actual needs, and the demand for real estate in the whole society has continued to rise. On the other hand, in order for real estate developers and speculators to obtain higher profits from expected inflation, and reluctant sales have become the means for them to maximize profits, thus creating artificially an atmosphere of intense and insufficient real estate supply in the society. It can be seen that on the one hand, the real estate demand is rising, on the other hand, real estate developers and speculators artificially reduce supply, so the real estate market has shown a serious shortage of supply . prices continue to skyrocket, Real estate bubble in the state of extreme imbalance between supply and demand to maintain accumulation and expansion, real estate bubble unprecedented expansion has lost real demand support

4.231 Demand side

On the demand side, urbanization may push up the demand for real estate, especially in third- and fourth-tier cities⁴. Since 1995, urbanization has taken off. In the 13th five-year plan accepted in March 2016, the government's goal is to further increase the urbanization rate to

⁴ Tier-1 cities include Beijing, Shanghai, Guangzhou, and Shenzhen. The other 31 cities belong to tier-2. The rest belong to tier-3

60% (approximately) by 2020. (WANG, n.d.) Immigrants are largely attracted to cities because income levels are three times that of rural areas, and immigrants who have moved to cities are allowed to purchase real estate after three years of residence. Second, the policies of the People's Bank of China (PBOC) may also cause a boom in the real estate market. In cities that have not implemented “purchase restrictions” measures, the minimum down payment ratio for commercial housing for households buying ordinary housing for the first time is in principle 25%, with a reduction of 5 percentage points. (People's Bank of China, China Banking Regulatory Commission, 2016).; last factor in general is home buyers think they will. It is usually thought to be too expensive for them and it is now acceptable to buy because they believe that prices will rise sharply in the near future to make up for the loss in the future. Buyers may also worry during the housing bubble if they don't, now buying houses, they will not be able to afford the cost of the house in the future. Main characteristics of the bubble is that prices have gone beyond the same level with potential fundamentals. But at the same time, people are eager to buy houses as expectations of future prices continue to increase. Price increases out of unreasonable expectations of buyers, they believe that if they do not buy a house now, they will not be able to afford it in the near future, as a result, demand for housing will increase. And, uh, the surge in demand led to a further surge in prices, which made buyers more certain. Prices continue to rise.

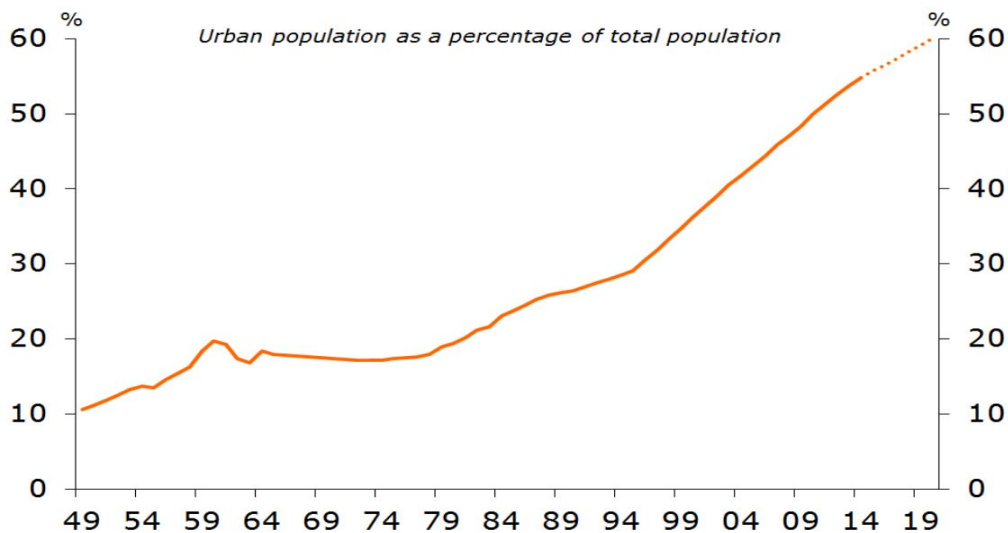


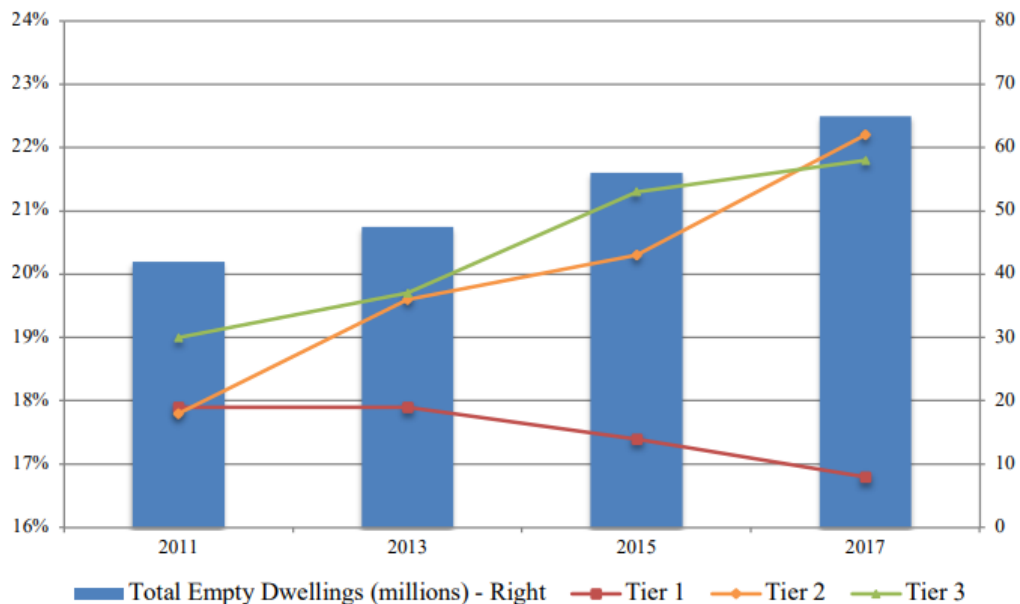
Figure 2 urban population as a percentage of total population

Source: Macrobond

4.232 Supply side

Although in China has tremendous in the housing demand ,also there is already massive oversupply in the market, however ,there are still a high vacancy rate in the first and second phases of a new district. According to a survey conducted by the China Family Finance Research Center 17 to 2017, the average vacancies in the first-tier cities replaced 17%, while the average vacancies in the second- and second-tier cities replaced 17 the vacancy rate in the third-tier cities exceeded 20% (Figure 3).), higher than most cities in the world (Figure 11). The emergence of "ghost cities" refers to fully constructed but vacant cities because the development of housing is far ahead of population growth, and it also raises expectations that there may be an oversupply of housing. (Kenneth S. Rogoff and Yuanchen Yang, 2020)

Figure 3 Housing Vacancy Rates by City Tier (2017)



Source : Survey and Research Center for China Household Finance

Table 1 Chinese city tier system

Market City Tier		
TIER 1	TIER 2	TIER 3
Shanghai	Ningbo	Wenzhou
Hangzhou	Suzhou	Taizhou
Shenzhen	Wuxi	Shaoxing
Guangzhou	Nanjing	Zhoushan
Beijing	HeFei	Changzhou
	Changsha	Nantong
	Wuhan	Zhenjiang
	Xiamen	Yangzhou
	Chengdu	Xuzhou
	Chongqing	Wuhu
	Xi'An	Dongguan
	Jinan	Zhuhai
	Qingdao	Foshan
	Tianjin	Fuzhou
	Dalian	Shantou
	Shenyang	Nanchang
		Urumqi
		Guiyang
		Kunming
		Lanzhou
		Daqin
		Baotou
		Hohhot
		Zibo
		Zhengzhou
		Taiyuan
		Tangshan
		Shijiazhuang

Source Sinostep

4.24 Market housing prices are rising abnormally and Unreasonable housing supply structure

How much has China's housing prices increased in the past ten years? This is really tricky question. China's house price growth reached 7.5% (Anon., 2021) in Dec 2020, compared with

an increase of 7.4% (Anon., 2021) in the previous month. China's housing price growth data is updated monthly, with an average of 8.0% (Anon., 2021) from Mar 1999 to Dec 2020, with 262 observations. The historical high value of the data appeared on 02-01-2010, reaching 25.0%, (Anon., 2021) while the historical low value appeared on 04-01-1999, which was -12.6%. (Anon., 2021) in China housing supply structure includes low- and medium-priced housing, high-end apartment buildings, and villas. The current unreasonable housing supply structure is an important reason for the high housing prices in China. At present, more than 60% of the population in China are low- and middle-income groups. However, from the perspective of China's residential investment structure, the proportion of high-end housing continues to rise while the proportion of affordable housing continues to decline. In recent years, the growth of real estate in China has been very large, and the total amount in the market can meet the total demand, but the supply of affordable housing and small-scale housing is far from reaching the needs of the people.

4.25 Land supply, monopoly and land fiscal policy are the institutional basis for the real estate bubble

In China, land is owned by the state or collective, and government officials have relatively large powers to deal with land. This is one of the reasons why the real estate market in China is greatly affected by the government. The monopoly and scarcity of land supply make land prices have a steady upward trend in a certain period of time. With the development of the economy, the improvement of industrialization, the acceleration of urbanization, and the continuous increase of urban population, people's demand for land is even greater, more exuberant. The reform of the tax-sharing system has weakened local financial power, causing a serious disconnect between local financial power and administrative power, and local fiscal revenues are stretched, so they have to focus on land sales revenue, and land finance has therefore become the main source of local off-budget revenue. In order to increase local income, local governments have continuously pushed up land prices under the policy of "bidding, auction and listing"; on the other hand, real estate is the main engine of China's urban GDP growth, and the performance evaluation and promotion of Chinese officials have been based on GDP growth is used as a measure. Therefore, as the sole supplier of land resources, local governments incorporate land revenues into local fiscal revenues, use land

revenues to "run cities" and create GDP performance. These factors constitute the motivation and internal incentives for local governments to sell land at high prices. Become a supporter of high housing prices . The scarcity and limitation of land also is one of essential factor .Scarce and limited land is the most fundamental reason for the real estate bubble. The basic characteristics of land are divided into natural characteristics and economic characteristics of land, and the scarcity of land is the most important economic characteristic. The scarcity and finiteness of land make it possible for land prices to rise. First of all, from the perspective of supply, the supply of land is relatively stable. With the continuous development of the economy, the population continues to increase, and the demand for land also increases. This leads to a relative shortage of land, which is in short supply. Part of the land belonging to the government has also aggravated the scarcity of land, which is the rise in land prices. Secondly, the state focuses its investment on infrastructure construction, which makes the supply of land very tight and increases the scarcity of land. Finally, as a kind of virtual capital, land is different from actual capital in that its price changes are likely to deviate from its actual value. Once its price rises, it will hardly fall. The price of land rises and the developer's cost increases. It will lead to a rise in housing prices and a large number of real estate bubbles.

The excessive concentration of financial resources in real estate-related industries has cause numerous bias in the economy. Since banks principally depend on real estate and land to hold collateral for secured loans, they provide more credit to companies that hold land, crowding out the credit to those who don't. Rising housing prices have also attracted companies whose core business is real estate. Investment in land that has nothing to do with real estate, transferring talents and resources. Economic demand areas such as trade, manufacturing, and technological innovation. (LiZhang, August 2017)

Local governments are also heavily participated interfere in real estate activities. On the one hand, land sales flourished by the prosperous housing market constitute the main source of local fiscal revenue. (see below Figure 4); on the other hand, the promotion or demotion of local officials depends on their ability to create economic growth . And the construction activity itself represents the measurable economic output.

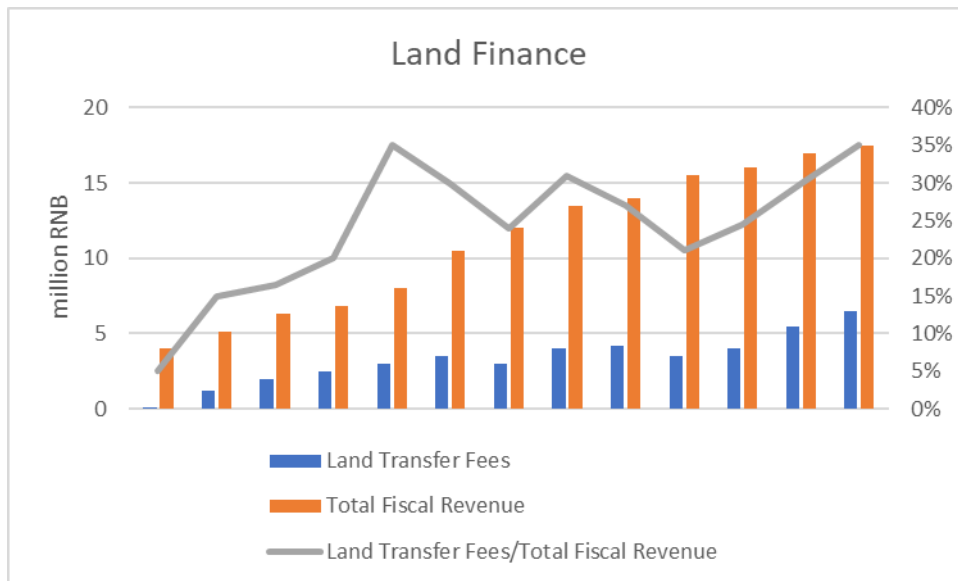


Figure 4 Land Finance

Source : Ministry of Finance of the People’s Republic of China

This graph indicated the contribution of land finance, which mainly refers to land transfer fees, to local fiscal revenue. Land transfer fees and total fiscal revenue are placed on the left axis, and the ratio of land transfer fees to total fiscal revenue is placed on the right axis.

4.26 The psychological factors and psychological expectations of buyers are the internal and dynamic mechanism for the real estate bubbles

Buyers' expectations of future real estate prices, whether rational or irrational, will affect the demand for real estate and cause real estate prices to change. Due to the asymmetry of information between buyers and sellers in the real estate market, buyers are often rebellious towards price changes, that is, the higher the price, the more aggressive the purchase. The imperfect rationality and speculative psychology of real estate buyers determine their "herd behavior" and form the "herd effect". Herd mentality is actually a positive feedback mechanism, which influences each other and transmits signals to each other, and the transmission of signals is often a positive feedback mode. When the house price rises, the buyers follow up to buy; when the house price falls, the buyers sell. Herd behavior is both a bubble-making machine and a bubble-breaking machine

4.27 Loose Bank Credit Policy

Because the real estate industry is a capital-intensive industry, real estate development must have strong capital. But as real estate expands in the development, the real estate developer's own capital is insufficient to provide the fund for the operation, the bank loan becomes its real estate development main source. Usually, the government has some restrictions on dealing with real estate development loans, but due to the high returns in the real estate industry, many commercial banks have violated the relevant regulations in practice. The banks issued large amounts of loans to developers; they didn't even verify their credit ratings, which led to massive capital inflows into real estate. The real estate market leads to overdevelopment of the real estate market (Peipei, 2021). The growth rate of credit and money far exceeded the GDP growth rate, for example, the M2 growth rate in 2009 was **29.7 per cent**, (CEIC, 2021) . while the year's GDP growth was only **9.4%** (CEIC, 2021) in 2010, M2 grew at 19.7 per cent, compared with The annual gross domestic product increased by 10.6 percent. (CEIC, 2021) One of the reasons over-issuing money Price increases. With the rapid rise in housing prices, the competition for Chinese businesses and banks in the real estate market has further deteriorated. In order to compete for market share, every commercial bank has relaxed restrictions, allowing a large amount of bank credit to flow to the real estate market and encouraging people to obtain mortgage loans. The current real estate market conditions in China are very similar to the previous Japanese . The collapse of real estate bubbles in Japan and other countries. We will talk about in the later parts. The rapid expansion of bank credit has caused a large amount of bank funds to flow into the real estate market, which has pushed up housing prices and caused a real estate bubble in most areas.

4.3. The transformation of China's Economic structure from the Real Estate Bubble

4.31 Impact of the housing bubble burst

The real estate bubble will inevitably burst when it reaches a certain level, and once it bursts, it will inevitably bring catastrophic consequences to the economy. The scope of its impact is very extensive due to the high degree of industrial relevance of real estate. The real estate market will collapse, house prices will fall, and no one will take orders because it is difficult to

judge the bottom. The first thing that ruptures is that our financial system, mainly banks, will have a large number of bad debts .If it is not handled well, there could be a depression. In severe cases, it will lead to economic and financial crises, a large number of factory closures, a sharp increase in the number of unemployed people, a sharp rise in crime rates, a deteriorating social atmosphere, and a significant increase in the cost of maintaining social stability, which may trigger a social crisis at any time.

In other words, the bursting of the real estate bubble refers to the process in which real estate prices deviate significantly from the basic value and then quickly return to the basic value. Once the real estate bubble bursts, the damage to the Chinese economy will be enormous, and serious social problems will ensue. After the real estate bubble burst, housing prices will fell wildly, and with the sharp decline in demand, housing prices continued to fall, forming a vicious circle. Most homebuyers mortgage their homes at high prices. With the bursting of the real estate bubble, houses will instantly depreciate, and many people will sell their houses because of this. At the same time, banks will accept depreciated properties, which will impact the entire financial system. The real estate industry is a very long industrial chain. Its upstream is construction materials, steel, coal, electricity, transportation, etc. These are capital-intensive industries. The bursting of the real estate bubble will lead to overproduction in the entire industrial chain, and the economy will then trend depression. Therefore, the damage caused by the real estate bubble is not only limited to the industry itself, but also affects many other upstream and downstream industries. If the domestic real estate collapses, the entire country's economy may be in crisis.

In the nutshell, it can be seen that the bursting of the real estate bubble has inestimable to Chinese macro and micro economy. The state must pay attention to the real estate bubble and intervene in advance. Before the real estate bubble bursts, if the government takes appropriate measures to actively respond in advance to slowly restore the real estate price to its normal value, this process can only be called "restoring its (King, Ronald R.; Smith, Vernon L.; Williams, Arlington W.; van Boening, Mark V. (1993), 1993) not a burst in the general sense. Because it takes a long time for real estate prices to slowly return to their normal values, the time for various stakeholders to adjust their action strategies is also lengthened accordingly, which is conducive to gradual adaptation and adjustment to minimize the losses of various

stakeholders. So as to reduce the social shock and harm caused by the bursting of the real estate bubble. Looking at the path of my country's real estate bubble generation and transmission, to properly handle the real estate bubble problem, the top priority must be to create a reasonable macroeconomic environment for the real estate market.

4.32 How to handle the relationship between state investment and private investment

The result of relying on state and government investment is that the country advances and the people retreat, causing the investment environment faced by the private real economy to continue to deteriorate, and the industry profit rate and return on capital are therefore declining year by year. A large number of private capital has nowhere to invest in the real economy, and can only join the virtual economy such as the stock market and real estate to participate in blowing up the real estate bubble. Therefore, in the economic restructuring and transformation, the state must retreat and the people advance. State-owned capital cannot compete with the people for profit. The state must treat private capital equally and open more fields to private capital, especially in petroleum, telecommunications, finance, etc. In the monopoly field, it is necessary to open up channels for the entry of private capital, so that more private capital in the form of hot money can find use, so that private capital gradually withdraws from the irrational real estate market, in order to gradually resolve the real estate bubble.

4.33 Reform of the National Income Distribution Mechanism

As we all know, the three carriages driving economic growth are investment, export and consumption. Since the reform and opening up, China's economy has been overly dependent on government investment and export demand, and the proportion of domestic consumption in GDP has been low. There is a trade-off relationship between investment and consumption. The proportion of investment continues to rise. The basic law of "crowding out" will only make it more difficult to start consumer demand. The result of emphasizing investment and overheating is that household consumption is weak, the growth rate is slow, and the circular relationship between total social supply and total demand is broken, which in turn affects the growth rate of the real economy. In recent years, under the dual pressure of the global financial crisis and the appreciation of the renminbi, China's export-driven economic growth model has become difficult and has lost room for further growth.

If China's economy wants to resolve the real estate bubble, it must rely on the outbreak of domestic consumer demand and consumption to stimulate production. The country's prosperity and the people's poverty are a true portrayal of the current Chinese economy, and it is also the root cause of the difficulty of real consumer demand. Therefore, starting the reform of the national income distribution mechanism and increasing people's income can ensure that the domestic demand of the Chinese economy is thoroughly stimulated, thereby injecting vitality into the development of the real economy and realizing the transformation of economic growth mode. To increase national income, local governments must abandon the mentality of competing with the people for profit. First, the state must reform the current land finance system, which is a system of competing with the people, so that the current real estate market can get rid of the shackles of land finance, and the rising real estate prices can only be realized. With a true fall, high housing prices can slowly move closer to the real value of real estate, so as to truly dissolve the real estate bubble, and residents' consumer demand can gradually be freed from the dilemma squeezed by high housing prices.

4.34 Gradually digest the excess capacity generated by the housing bubble

Since real estate was established as a pillar industry of the national economy, the real estate industry has embarked on a "money-spending" development path, accompanied by the repeated appearance and accumulation of excess capacity throughout the country. Overcapacity has severely hindered the healthy development of China's economy and has also posed a huge threat to the bursting of the real estate bubble. The way out for digesting excess capacity lies in the transformation of the economic structure, that is, to build the country with independent innovation and rewrite Chinese manufacturing into Chinese creation. Independent innovation is of great significance to China's economic structural transformation, national security, and taking the commanding heights in international economic competition. In today's world, political and economic independence must be based on technological independence. In today's China, in order to transform its economic structure, it is necessary to abandon the traditional economic development model driven by natural resources and factor accumulation and rely on asset bubble inflation, but to guide economic development to rely more on improving resource allocation efficiency and various technological innovations. Activities come up to allow the people to share the dividends brought about by economic development

and realize the transformation from traditional economic development methods to modern economic development methods.

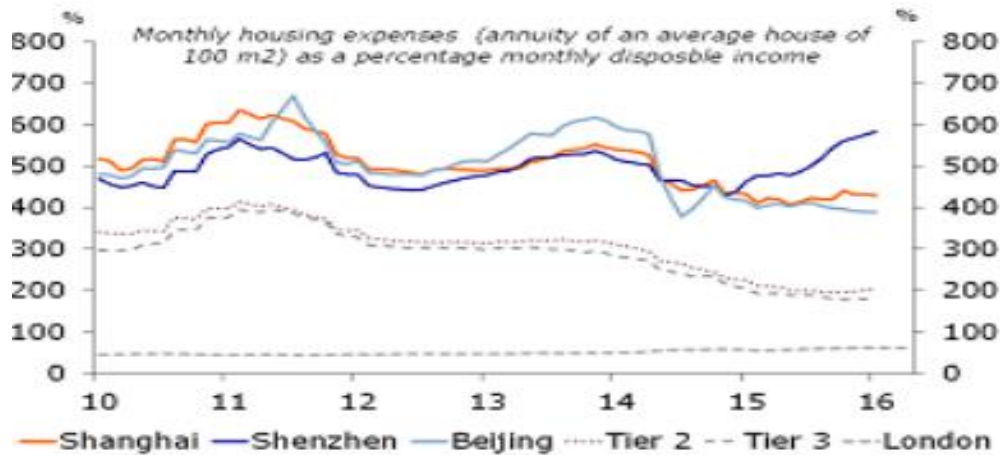
The real estate bubble is formed and developed in a specific economic environment, and the real estate bubble has its inevitability. The bursting of the real estate bubble will have a huge impact on China's entire social economy, and even lead to an economic crisis. Therefore, before the real estate bubble bursts, the government must take precautions and intervene proactively in advance. The transformation and upgrading of the economic structure is a good remedy for the current Chinese economy to dissolve the real estate bubble, which is conducive to the gradual and slow recovery of the Chinese real estate bubble to its basic value, thereby minimizing the harm caused by the bursting of the real estate bubble.

5 Results and Discussion

5.1 Does China have a housing market bubble?

Indicators of Real Estate Bubble: In order to verify whether there is a housing bubble, we need to do this to analyze whether housing market prices have been higher than the basic level they should reach. Here, some indicators are often used to assess whether the housing in a certain area is fairly valued, and whether the real estate market is experiencing a bubble. Since China's leasing market is very incomplete, we need to look at the level of price to income. The ratio of housing price to income is a measure of the affordability of basic housing in the housing market. Given region. Usually the ratio of median house price to median household price Disposable income, expressed as a percentage or years of income. (Proptiger, 2015) As below an affordability index that links monthly housing costs to disposable income. It has ridiculously high numbers in Chinese cities. the cost of housing in Shenzhen is 6 times the average disposable income, while in London, the ratio is about 70%. See below figure 5 :The huge difference between Chinese cities and London is not so much caused by the absolute deviation of house prices as it is because the average loan interest rate is higher, and most importantly, the per capita disposable income is much lower. In 2015, London's annual disposable income was more or less **US\$55,000 per capita**, (Anon., 2020) while in Shanghai and Beijing, it was more than **US\$8,000**. (Anon., 2020)

Figure 5 Affordability in Chinese tier 1 cities e 1



Source: Macrobond, CEIC, Rabobank

Housing prices-to-Rent Ratio: “The house-price-to-rent-ratio is a measure of whether it is more profitable to rent or to buy a house. It is generally calculated by dividing the median house price by the median annual rent..” (statista, 2021). “A general guide is that renting is preferable if the price-to-rent ratio exceeds 20, whereas buying is better if the ratio is less than 15. If the ratio is between 15 - 20, then buying makes more sense if the buyer intends to live in the house for a long time.” (thismatter, 2004).. In China the Price to Rent Ratio - City Centre is **66.04**. (numbeo, 2021) the result is regarded as the warning line of real estate bubble in the world

5.1 On the comparison between the Chinese real estate bubble and the Japanese bubble

5.1.1 Japan's asset bubble in the 1990s

The Japanese asset price bubble was an economic bubble in Japan from 1986 to 1991 in which real estate and stock market prices were greatly inflated. (Wood, 2009) In early 1992, this price bubble burst and Japan's economy stagnated. The bubble was characterized by rapid acceleration of asset prices and overheated economic activity, as well as an uncontrolled money supply and credit expansion. (Kunio Okina, Masaaki Shirakawa, Shigenori Shiratsuka, 2001) More specifically, over-confidence and speculation regarding asset and stock prices were closely associated with excessive monetary easing policy at the time. (Edgardo Demaestri, Pietro Masc, 2002). Japan first gradually abandoned the autonomous economic

strategies. And granted financial freedom ,slowly entering the trap of liberalism. Then there were policies aimed to stimulus the economy .Monetary easing, liquidity release, inflationary bubble. Then increased interest rate to restrict liquidity. The bubble burst instantly. Mr.Kurida also supports this view, The original words in his book “The Lessons from Japan's Failed Exchange Rate Policy “are what caused severe inflation and asset bubbles is not the yen's appreciation itself. Instead, the government took the wrong fiscal and monetary policies. The high increase in interest rate dried up the liquidity in the market suddenly. “Liquidity Disappear Ability “first attacked the stock market

5.12 An influx of international hot money

In September 1986, after the "Plaza Agreement" was signed,. A large amount of international "hot money" poured into the Japanese stock market and real estate market, which helped the formation of the bubble. Faced with inflation, it is now ready to relax its policy, allow the dollar to depreciate, and pay more attention to growth. This is a signal of coordinated support for money market intervention and a steady reduction in short-term interest rates in the United States. Therefore, it triggered an unusually large appreciation of the yen, 46% against the dollar, and an appreciation of 30 before the end of 1986 in a truly effective way. (The Deutsche Mark also appreciates it. (Anon., 2015)

5.13Two equally similar aging countries

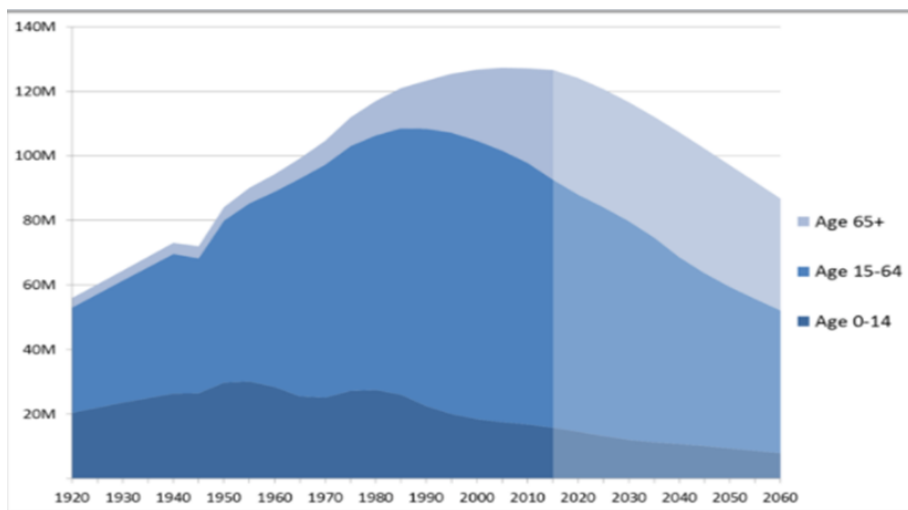
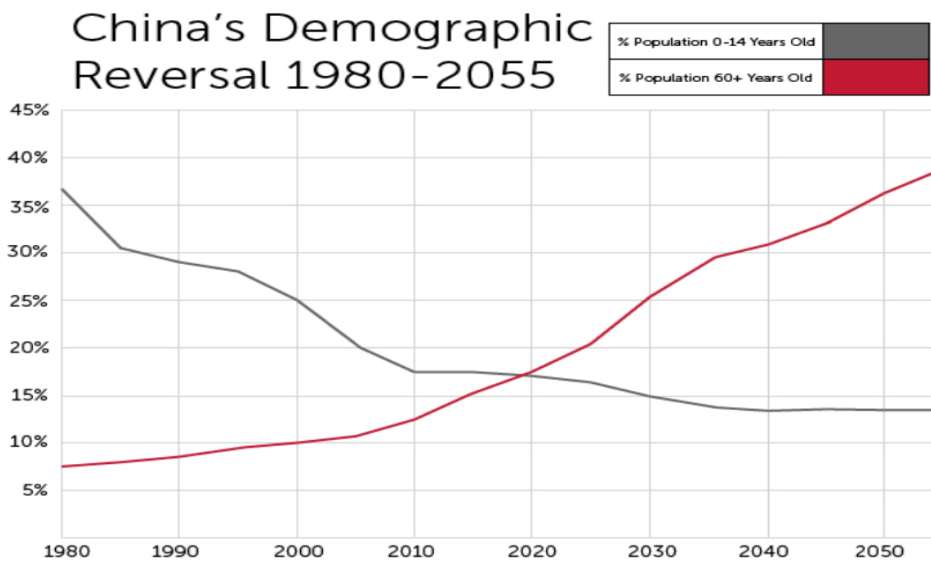


Figure 6 Demographics of Japan 1

Figure 7 China's Demographic Reversal of Young and Old Populations



Source : Image Credit: COLLECTIVE RESPONSIBILITY

As we all know Japan has the highest magnitude of population aging in the world, and China has been experiencing the rapid pace of population aging and has the largest elderly group population. Mining of population data reveals other key differences. While in Japan, the elderly have always dominated the economic agenda in adulthood, while in China, the older generation has never-even in their heyday-become an important driver of consumption. Just as China puts more emphasis on consumption as a new growth engine, it has encountered a new wealthy, higher-spending young consumer class. For them, a wealthier consumption level has been a relative. On the contrary, in Japan, young people who have lost their decades of age feel less economically prosperous than older people. Similarly, when the older generation in China leaves the labor force, the impact will be different. Unlike Japan, the educational gap between generations is very narrow, and human capital is reflected in the deep layers of the elderly. In China, human capital is clearly biased towards young people. Compared with the 1970s, the lower fertility rate, coupled with the increase in family and national income, means that more resources have been invested in the education of each child in recent decades. As China's population as a percentage of workers declines, maintaining per capita output requires

increasing per capita productivity. Young people in China, at least in theory, have a good ability to use their relative skills to maintain, if not increase, the level of productivity.

In a nutshell, The difference in economic status in the real estate industry between China and Japan means that the bursting of the real estate bubble in China will be different from that in Japan. China's land ownership system stipulates that the burst of the real estate bubble will occur at huge prices. Fortunately, the Chinese government is more capable of allocating social resources than the Japanese government, so China still has the ability to implement structural reforms to deal with the potential real estate bubble crisis.

5.2. What China can learn from the Japan

5.2.1 Vigorously develop the housing rental market

At present, China's leasing ratio is at a low level according to worldwide, and the leasing market is not yet perfect. The focus of improving both rental and purchase is in two aspects. The first is to fully mobilize the enthusiasm of rental housing suppliers, vigorously develop housing rental enterprises, encourage developers to get involved in the rental business, and support individual rental housing. At the same time, appropriate policy support should be provided for supply topics, such as tax relief, Provide direct financing for related companies to protect the rights of lessees, maintain relatively stable rents, promote lease-purchase rights, and increase lease consumption financing services.

5.2.2 Enhanced continuity and stability of monetary and financial policies

Financial policy adjustments are too fast or too rapid, which can easily lead to large fluctuations in the market. The formation and bursting of the Japanese real estate bubble is closely related to the Bank of Japan's frequent adjustment of monetary and financial policies. It is necessary to control the residents' leverage ratio within a reasonable range, and avoid excessively increasing leverage, which may reduce the risk resistance. The growth rate of the money supply is maintained within a reasonable range to prevent excessive currency from exacerbating bubble inflation, and also to prevent the initiative to pierce the bubble and cause major financial risks.

5.3 Promote the balance of land supply and demand

The current land policy implemented in China is mainly to link the population transferred from agriculture to the supply of construction land, but population migration is not a simple process of urbanization. At this stage, it is more manifested in the transfer of population from third- and fourth-tier cities to first- and second-tier cities. Therefore, the current land policy cannot fundamentally solve the contradiction between the massive influx of population in first- and second-tier cities and housing shortages. The fundamental reason for alleviating the excessively rapid rise in housing prices in first- and second-tier cities lies in reforming and improving the land policy, which will increase the permanent population and the supply of construction land. Quantify and connect to solve the problem of imbalance between supply and demand

5.4 Establish a long-term mechanism for the real estate market

Frequent use of administrative measures such as purchase restrictions and loan restrictions will result in imperfect market mechanisms. For example, the mandatory postponement of demand will lead to a retaliatory rebound in house prices once the regulation is relaxed. Social phenomena such as false divorce and false marriage. It is necessary to gradually establish a long-term mechanism for the real estate market on the basis of giving more play to the regulatory role of market laws, and to rationally and effectively regulate monetary and financial policies, fiscal and tax policies, and land policies in the short term. To ensure the stable and healthy development of the real estate market

5.5 How JAPAN'S RESPONSE TO THE RECENT FINANCIAL CRISIS

Until the fall of 2008, Japanese banks were not severely affected by the financial turmoil in the United States because they invested a relatively small amount of investment portfolio in subprime-related investment financial products. Instead, they were more severely affected by capital losses. Due to the global outbreak, their stock holdings fell sharply with stock prices according to the financial crisis. With the contraction of the U.S. economy, the Japanese economy experienced an abruptly sharp decline in high value-added exports. Manufacturing products-such as automobiles, electronic appliances, machinery, etc. **In December 2008, the government enacted a law that enabled capital injections to be**

made⁵. By March 2009, three regional banks applied to the authorities to obtain capital. (Mariko Fujii ,Masahiro Kawai, June 2010) In the capital market, companies found it difficult to issue bonds or commercial financing documents submitted immediately after the collapse of Lehman Brothers (Cp. Therefore, the government has implemented measures such as exporter guarantee programs and other measures. The Bank of Japan has begun to purchase cp. Up to now So far, these measures have effectively alleviated the severe liquidity shortage and stabilized the financial market. The restructuring of the financial part in the US has impacted Japanese banks and brokers,dealer,.Nomura bought Lehman Brothers' operation in Europe, the Middle East and Asia, It turns out that this is an expensive thing, as reflected in their 2008 financial results. The long-term basic dilemma for Japanese banks is that their profitability is not sufficient to cover the cost of credit. It is generally believed that the loan profit margin of the Bank of Japan remained low before and after the asset price bubble. When this concern apparently led them to buy some shares of US banks, brokers, and dealers, the challenge for the Bank of Japan was to develop a long-term management strategy that could improve profitability.

6 Conclusion

The Japanese government failed to solve the banking problem in the 1990s The rapid and decisive way, because the crisis develops slowly, its severity is undervalued, too optimistic about growth, no major domestic and foreign There is pressure, lack of legal framework to solve bad banks. Recognition of the severity and depth of bank balance sheet issues as Potential loan losses are the first step in resolving the banking crisis. The government estimating the severity of the crisis and taking prompt action to recapitalize viable banks, Lack of capital is an effective measure to restore market confidence and stabilize the market. Banking system. The next step is to remove damaged assets from the bank's balance sheet. This Institutions like government-funded asset management companies are often needed purchase such problematic assets. As a result, recapitalization and asset purchases could take place Complementary measures to restore a resilient capital base and banking sector Health. A well-designed policy mix minimizes taxpayer costs.

⁵ The law related to past capital injections had been terminated in March 2008

As the conclusion of this article, the reasons for high housing prices and housing bubbles in mainland China are diverse, including rapid urbanization, rapid economic growth, traditional housing concepts, speculation, loose bank credit policies, and high land prices. When China's real estate bubble bursts, it is unpredictable, but the consequences will be very serious. Therefore, both the government and the public should pay more attention to the real estate problem in Mainland China, because it is not only related to people's daily life, but also related to people's daily life. Sustainable development of the national economy, and more importantly, it involves the entire country's stable.

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