

# The Relationship Between Real Estate Bubble Premium, Insufficient Household Consumption, Excessive Corporate Investment, and Bank Non - Performing Loans

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**Abstract:** Since the housing marketization reform in 1998, China's real estate market has boomed and become a key driver of economic growth. Yet, post-2010, housing price hikes in some cities have outpaced residents' income and rental returns, manifesting obvious bubble traits. This real estate bubble premium poses threats to the market's stability and impacts the macro - economic structure via industrial chain transmission. Concurrently, household consumption remains insufficient, some industries grapple with excessive investment and overcapacity, and real estate - related bank loans carry potential risks. This paper delves into the connection mechanism between the real estate bubble premium and economic structural imbalances. Theoretically, it integrates bubble premium theory with China's economic structure issues, refining the differentiated impact paths on residents, enterprises, and financial institutions, thus enriching research on the interaction between asset bubbles and the macro - economy. Practically, through empirical analysis and case verification, it offers data support and decision - making references for the government to formulate real estate regulation policies, optimize consumption and investment structures, and prevent financial risks. Existing studies mostly focus on the overall impact of bubbles, with insufficient analysis on the transmission mechanism of the "bubble premium". This paper separates the bubble premium from asset bubbles, systematically explaining its specific effects on consumption, investment, and the financial system, and filling the detailed gap in current research. It defines the real estate bubble premium as the part of real estate prices exceeding reasonable values due to speculation, driven by speculative expectations and having a self - reinforcing feature. The paper also explores how the bubble premium leads to insufficient household consumption through wealth illusion, consumption suppression, and the crowding - out effect of housing purchase expenses.

**Key Words:** Real Estate Bubble Premium; Household Consumption; Corporate Investment; Non - Performing Loans

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## 1 Introduction

### 1.1 Research Background

Since the reform of the housing marketization in 1998, China's real estate market has experienced rapid development and has become an important engine driving economic growth. However, after 2010, the housing price growth in some cities has far exceeded the growth of residents' income and rental returns, showing obvious bubble characteristics. According to the data from the National Bureau of Statistics, the average sales price of commercial housing nationwide rose from 5,034 yuan per square meter to 11,082 yuan per square meter from 2010 to 2023, an increase of 120%. During the same period, the per capita disposable income of urban residents increased by 98%, and the housing price - to - income ratio rose from 6.5:1 to 8.3:1. The problem of real estate bubble premium has gradually become prominent.

The existence of bubble premium not only threatens the stability of the real estate market itself, but also affects the macro - economic structure through the industrial chain transmission. According to Wind data, in recent years, China's household consumption rate has always been below 60% (55.8% in 2023), which is far lower than the level of more than 70% in developed countries. Excessive investment and overcapacity coexist in some industries (such as real estate and construction). Although the non - performing loan ratio of commercial banks remained at 1.16% (the third quarter of 2023), the proportion of real estate - related loans exceeded 30%, and the potential risks cannot be ignored. Against this background,

it is of great practical significance to explore the connection mechanism between real estate bubble premium and economic structural imbalance.

## 1.2 Research Significance

- Theoretical Significance: This paper combines the bubble premium theory with China's economic structure problems, refines the differentiated impact paths of bubble premium on residents, enterprises, and financial institutions, and enriches the theoretical research on the interaction between asset bubbles and the macro - economy.

- Practical Significance: Through empirical analysis and case verification, it provides data support and decision - making references for the government to formulate real estate regulation policies, guide the optimization of consumption and investment structures, and prevent financial risks.

## 1.3 Literature Review

Scholars at home and abroad have conducted extensive discussions on the relationship between asset bubbles and economic structure. Wang Shuo expounded that housing prices have an inverted "U" - shaped impact on the consumption structure, with the marginal propensity to consume as an intermediary, and its effect varies with consumer groups, regions, and the degree of bubbles <sup>[1]</sup>. Hu Weiyu pointed out that the real estate bubble squeezes the main business investment of the manufacturing industry, and the development of the financial market has a negative regulatory effect, leading to capital misallocation <sup>[2]</sup>. Zhang Yiwen pointed out that there is an asymmetric positive impact between the risk preference of commercial banks and the real estate risk premium, which is affected by regional economic differences and purchase restriction policies, and the correlation is more significant in developed regions <sup>[3]</sup>. Dong Ziyi conducted research on the theories related to consumption upgrading and the correlation between housing prices and consumption upgrading, and selected relevant indicators to lay a foundation for exploring the impact of housing prices on consumption upgrading from a spatial perspective <sup>[4]</sup>. Li Changsheng analyzed and explored the short - term and long - term impacts of housing price changes on bank credit risks <sup>[5]</sup>.

Most of the existing studies focus on the overall impact of bubbles, and there is insufficient analysis on the transmission mechanism of the core variable of "bubble premium". This paper separates the bubble premium from the asset bubble, systematically explains its specific effects on consumption, investment, and the financial system, and makes up for the detailed gap in the existing research.

## 2 Concept of Real Estate Bubble Premium

The real estate bubble premium refers to the part of the real estate price that exceeds the reasonable value determined by the fundamentals (such as residents' income, rental level, construction cost, etc.) due to speculative activities, which causes the real estate price to be higher than its actual value. Its essence is the false price increase driven by speculative expectations. Different from the general fluctuation of asset prices, the bubble premium has a self - reinforcing feature: speculators buy real estate expecting housing prices to continue to rise, which further pushes up the prices, forming a cycle of "price rise - intensified speculation - further price rise".

## 3 The Impact of Real Estate Bubble Premium on Insufficient Household Consumption

### 3.1 Wealth Illusion and Consumption Suppression

The real estate bubble premium makes residents have the perception of "false wealth growth", while the burst of the real estate bubble leads to a huge reduction in the actual wealth of ordinary residents, reducing residents' consumption desire and motivation, and resulting in insufficient household consumption. Real estate wealth is fragile: on the one hand, the rise in housing prices supported by the bubble premium does not correspond to the improvement of the use value of housing; on the other hand, the proportion of speculative home purchases has increased (the proportion of investment - oriented home purchases in some cities reached 25% in 2023), resulting in the circulation of housing relying on subsequent buyers. Once the bubble bursts, the wealth will evaporate rapidly.

Due to the worry about the bubble burst, residents tend to reduce immediate consumption to increase precautionary savings. According to the data from the National Bureau of Statistics, China's household savings rate rose from 38% to 45% from 2010 to 2023, while the growth rate of total retail sales of social consumer goods fell from 18.3% to 6.5%. The two show a significant negative correlation (correlation coefficient - 0.72), which confirms the inhibitory effect of the bubble premium on consumption.

### **3.2 The Crowding - out Effect of Housing Purchase Expenses on Consumption**

The bubble premium increases the cost of buying a house, forcing residents to reduce other consumption. According to Wind data, in 2023, the proportion of the average monthly mortgage payment of Chinese urban residents to their disposable income reached 38% (i.e., the "mortgage - to - income ratio"), which far exceeded the internationally recognized warning line of 30%. Taking Beijing as an example, the total price of a 90 - square - meter house is about 5.4 million yuan. Calculated with a 30% down payment and a 30 - year loan term, the monthly mortgage payment is about 18,000 yuan, accounting for more than 50% of the family's monthly income, which seriously squeezes the necessary consumption expenditures such as food, education, and medical care.

In addition, the bubble premium makes real estate a "high - return" investment product, attracting residents to shift funds from consumption to speculative home purchases. According to Wind data, in 2023, 70% of the new loans of Chinese households were mortgages, while the proportion of consumer credit was only 15%. The excessive flow of funds to the real estate market further inhibits the growth of consumption.

## **4 The Relationship Between Excessive Corporate Investment and Real Estate Bubble Premium**

### **4.1 Capital Misallocation and Industrial Imbalance**

The real estate bubble premium reduces the financing cost of the industry: on the one hand, high housing prices make real estate enterprises more likely to obtain equity financing (investors pursue bubble returns); on the other hand, the increase in the mortgage value of land and real estate enables real estate enterprises to obtain more bank loans (the balance of real estate development loans reached 13.5 trillion yuan in 2023, accounting for 18% of the total corporate loans) (according to Wind data).

The influx of excessive capital into the real estate industry leads to the loss of resources from the real economy. According to the data from the National Bureau of Statistics, from 2010 to 2023, the average annual growth rate of fixed asset investment in the real estate industry was 12.3%, while the growth rate of manufacturing investment was only 6.8%. The proportion of the real estate industry in GDP rose from 5.6% to 7.3%, but the proportion of the manufacturing industry fell from 28% to 24%, forming a pattern of "the real estate industry squeezing the real economy".

### **4.2 Herd Effect and Overcapacity**

The bubble premium triggers the "herd investment" of enterprises: non - real estate enterprises, seeing the short - term high returns in the real estate industry, participate in it through cross - border investment (such as manufacturing enterprises establishing real estate subsidiaries); real estate enterprises, on the other hand, over - develop to seize market share, ignoring the real housing demand. According to the data from the National Bureau of Statistics, the unsold area of commercial housing in China reached 650 million square meters in 2023. Calculated based on the average annual sales area of 1.3 billion square meters, the destocking cycle takes 6 months, while the destocking cycle in some third - and fourth - tier cities exceeds 2 years, showing a clear oversupply situation.

This excessive investment is divorced from the fundamentals: China's urbanization rate was 66.2% in 2023, with an average annual increase of about 10 million new urban residents, corresponding to a housing demand of about 400 million square meters. However, the new construction area in that year reached 1.15 billion square meters (according to the data from the National Bureau of Statistics), and the investment scale far exceeded the actual demand, resulting in serious overcapacity.

### **4.3 Consequences of Excessive Corporate Investment**

Due to the real estate premium, many enterprises are attracted to invest in real estate. This excessive investment has led to a large increase in real estate, far exceeding the actual demand of society for real estate, and promoting the burst of the real estate premium. There are three consequences: first, the completed houses far exceed the needs of residents and cannot be sold in a timely manner; second, the proportion of bank business focusing on real estate loans increases; third, after the bubble bursts, residents' wealth depreciates.

## **5 The Relationship Between Real Estate Bubble Premium and Bank Non - Performing Loans**

### **5.1 Overvaluation of Collaterals and Risk Accumulation**

When issuing loans, banks take the appraised value of real estate as the basis for collaterals, and the bubble premium

leads to the overvaluation of the appraised value. For example, a house with an actual value of 1 million yuan is appraised at 1.6 million yuan under the influence of the bubble premium. The enterprise obtains a loan of 1.12 million yuan based on this (according to a 70% mortgage rate), but the actual collateral can only cover the debt of 1 million yuan, leaving a risk exposure of 120,000 yuan.

According to the statistics of the People's Bank of China, in 2023, the balance of real estate - related loans (including development loans and mortgage loans) of China's banking industry reached 53 trillion yuan. If calculated based on a bubble premium rate of 62.5%, the potential risk exposure is about 16.6 trillion yuan. Once housing prices fall, non - performing loans may be exposed on a large scale.

## 5.2 Bubble Burst and the Generation of Non - Performing Loans

Historical experience shows that the bubble premium is unsustainable. When the speculative expectation reverses (such as the tightening of policies or the saturation of demand), the decline in housing prices will trigger a chain reaction: real estate enterprises have broken capital chains from sales proceeds and cannot repay development loans; homebuyers are insolvent and choose to stop repaying mortgages (data from the China Index Academy shows that in 2022, the number of auctioned houses listed for sale in China reached 606,000, a record high); the value of bank collaterals shrinks, making it difficult to recover loans.

Taking Japan as an example, after the burst of the real estate bubble in the 1990s, the non - performing loan ratio of the banking industry rose from 2% to 8%, and many banks went bankrupt. In the 2008 subprime mortgage crisis in the United States, the burst of the real estate bubble led to a surge in bank non - performing loans, triggering a global financial crisis. Although China has not experienced a systemic crisis, the scale of debt defaults of real estate enterprises has exceeded 1.5 trillion yuan since 2021 (statistics from reporters of China Real Estate News), and the non - performing loan ratio of real estate in some small and medium - sized banks has risen to more than 3%. The risks cannot be ignored.

## 6 Conclusions and Policy Recommendations

### 6.1 Research Conclusions

First, the real estate bubble premium leads to insufficient household consumption through wealth illusion, precautionary savings, and the crowding - out effect of housing purchase expenses. When there is a bubble in the real estate market and housing prices are artificially high, residents will have the illusion that their wealth has increased significantly due to the appreciation of real estate. On the one hand, this illusion may make residents mistakenly believe that their future income will continue to grow at a high rate, thereby reducing current consumption; on the other hand, the high housing prices force residents to increase precautionary savings to buy houses or cope with the possible further rise in housing prices, and invest a large amount of disposable income in real estate - related fields, thereby squeezing consumption expenditures on other goods and services. In the long run, the overall consumption of residents is suppressed, which is not conducive to the prosperity of the consumer market and the virtuous cycle of the economy.

Second, the bubble premium triggers capital misallocation and the herd effect, promoting enterprises to over - invest in the real estate industry and exacerbating overcapacity. The expectation of high profits brought by the real estate bubble attracts a large amount of capital to flow into this industry. Not only do real estate enterprises expand on a large scale themselves, but many non - real estate enterprises are also driven by interests to invest in the real estate industry across borders. This leads to a large - scale transfer of capital from the real economy fields that may need funds more, such as the manufacturing industry and the technological innovation industry, to the real estate industry. The over - investment in the real estate industry, in turn, causes the supply of the real estate market to far exceed the actual demand, forming a situation of overcapacity. At the same time, the herd effect makes enterprises invest blindly, which further amplifies the problems of capital misallocation and overcapacity.

Third, the bubble premium overestimates the value of collaterals, causing banks to accumulate a large number of potential risks. After the bubble bursts, these risks are converted into non - performing loans, and disputes between real estate borrowers and banks have occurred in some regions. During the real estate bubble period, housing prices continue to rise. When banks issue real estate - related loans, they often take the overestimated real estate value as collateral. Banks mistakenly believe that even if the borrower cannot repay the loan, they can recover the principal and interest of the loan by disposing of the collateral property. However, when the real estate bubble bursts and housing prices fall sharply, the value of collaterals shrinks drastically. At this time, the loans issued by banks are faced with huge loss risks. Once the borrower

defaults, it is difficult for the bank to make up for the loss by disposing of the collateral property, and a large number of potential risks will be converted into actual non - performing loans. The disputes between real estate borrowers and banks that have occurred in some regions are the initial manifestation of this risk. If not valued and prevented, it may trigger more extensive financial risks.

## 6.2 Policy Recommendations

### 6.2.1 Suppress the Real Estate Bubble Premium

To suppress the real estate bubble premium, first of all, the "purchase restriction and loan restriction" policies can be adopted to stabilize the expectation of housing prices. The purchase restriction policy can limit the unreasonable demand for housing, especially the speculative demand for housing, and reduce the speculative behavior in the market; the loan restriction policy can increase the cost of buying a house by adjusting the down payment ratio of loans and the loan interest rate, suppress the excessive demand for housing, and thus stabilize housing prices. Secondly, increase the supply of affordable housing to divert demand. The large - scale supply of affordable housing can provide more housing options for middle - and low - income groups, reduce their demand for commercial housing, thereby alleviating the contradiction between supply and demand in the commercial housing market and stabilizing housing prices. Finally, levy real estate tax (expand the pilot scope) to reduce speculative returns. The levying of real estate tax will increase the holding cost of property owners, especially for speculators who own multiple properties, which will greatly reduce the possibility of them obtaining high profits through real estate speculation, thereby suppressing the speculative behavior in the real estate market and promoting the stable and healthy development of the real estate market.

### 6.2.2 Boost Household Consumption

To boost household consumption, first of all, it is necessary to improve the social security system to reduce precautionary savings. A sound social security system, including a sound medical security, old - age security, and unemployment security, can make residents more secure when facing risks such as illness, old age, and unemployment, reduce the precautionary savings they make to deal with these risks, and thus release more disposable income for consumption. Secondly, reduce the burden of buying a house by lowering the mortgage interest rate. The mortgage loan is the main source of funds for residents to buy houses. Lowering the mortgage interest rate can reduce the cost of buying a house for residents, reduce the expenditure pressure of residents on buying a house, and enable residents to have more funds for consumption in other fields. Finally, actively cultivate new consumption hotspots to release consumption potential. For example, vigorously develop emerging consumer industries such as culture, tourism, health, and elderly care, provide residents with more diversified consumption choices, stimulate residents' consumption desire, and further promote the growth of the consumer market.

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