# Research on the Financial Risks Volatility and Financial Risks Modeling and Simulation of Chinese Real Estate

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**Abstract.** The real estate economy cannot develop without the support and development of real estate finance, and real estate finance as a high-investment, high-yield, high-risk, capital-intensive industries, the possibility of fluctuations, risk and crisis is extreme large. If does not make scientific analysis and judgment of risk fluctuations in the real estate finance and establish a scientific and reasonable financial risk modeling and simulation, there is inevitable possibility of the existence of potential risks and cumulative. Once this possibility transfers into reality, it will inevitably affect the real estate economy sustained and healthy development, thereby affecting the development of the national economy. Therefore, the study of financial risks volatility and financial risk modeling and simulation of Chinese real estate has important theoretical and practical significance.

### Introduction

Real estate is an important sector of the national economy, its rise and fall is directly related to the rise and fall of the national economy; the real estate industry is a high input, high-risk, high-yield capital-intensive industry, high dependence on financial capital, leaving appropriate and adequate financial support, the real estate is difficult to have made great progress. Therefore, the development of real estate finance development of a country real estate economy and the whole national economy plays an important role [1].

## The Relationship between Real Estate and the Financial Industry

The real estate industry is engaged in a variety of economic activities in real estate development, construction, operation, management and maintenance, decoration and service of integrated industry with high added value, which is the third industry. Financial intermediation refers to the monetary fund, including all economic activity and monetary circulation and credit-related. The basic function of finance is to raise funds and allocate funds for the operation of the economy, it is the transfer of funds to the financial market or through financial intermediaries, directly or indirectly, from the supply side demand side [2].

Real estate and financial sector belong to the tertiary industry, as China's further economic development and accelerated urbanization, traditional housing system and the financial system are fundamental changes taking place, therefore, real estate and finance industry mutual promotion and common development The relationship is also becoming increasingly apparent. The relationship between real estate and the financial industry between prominently relationship between real estate and commercial banks, non-bank financial institutions and capital markets between the upper. As the real estate industry is relatively independent of material production sector, in the production of goods involved in real estate, distribution, exchange a series of production and business activities and consumption, we can not leave all kinds of financial institutions and financial markets to provide capital raising, intermediation and settlement and other financial services. Overall, real estate development is inseparable from the support and permeate the financial industry, and its development in turn has provided a broad space for the growth of the financial sector.

First, the inherent characteristics of real estate goods, the development of real estate has always been inseparable from the support and development of real estate finance. From the producer's point of view, the real estate development and investment goods is a large, long construction period, slow

recovery of funds and productive products, therefore, to rely solely on real estate developers is difficult to meet their capital needs of real estate development and construction, we must adopt the necessary financial tools, the introduction of social financial capital, to solve the financial difficulties developers. From the consumer's point of view, a one-time purchase of real estate goods, long-term gradual consumption of consumer durables or even a lifetime of consumption, demand by consumers for its lifetime income constraint, both income consumers is difficult to assume this payment, if no financial intermediaries to provide financial support for consumer, social effective demand for such consumer must be at the very low and weak levels. Therefore, from the characteristics of real estate goods, whether it is their producer or their consumers, are inseparable from financial support, is inseparable from the development of real estate finance.

Secondly, from the experience of countries in the world economy, real estate development, the financial support is an important guarantee for the healthy development of the real estate industry. United States in 1929 and 1932 economic crisis, the real estate industry a "sell the house owner and the lack of housing but can not afford a house consumer coexistence" situation, the domestic economy into four years of recession, real estate sales fell from 930,000 units per year to 90,000 units, a decrease of 90%. To this end, in 1934, the US government established the Federal Housing Administration, in 1938 established the National Real Estate Finance Authority, specializes in providing guarantees or credit support to consumers to buy homes, were mortgage securities processing, making it the real estate market Not out of the crisis since the 1930s, into a virtuous circle. Rest of the world, such as Germany, Britain, Singapore and other, healthy growth in its real estate development Almost Mo leave their real estate finance industry. Therefore, from the experience of the world of real estate economy, the real estate industry can not do without financial support, is inseparable from the development of real estate finance.

Thirdly, from the reality of China's real estate reforms, the low level of income residents money is the biggest obstacle to the monetization of housing, the urgent need of financial support. For a long time, China's implementation of "high welfare, low-income," the income distribution policy, housing as an important benefit of state-owned enterprises and institutions provided free of charge to employees, unified by the State or unit of development and construction, the residents do not need to accumulate savings to this end. Thus, market-oriented housing system reform process, there have been consumer country (residents) low level of monetary incomes and savings accumulation is difficult to effectively assume currency of housing subsidies paid contradictory pressures, restricting China's housing reform process and real estate development industry. How to solve this problem? Clearly, intervention through financial intermediaries, so that consumers can borrow against future income in order to achieve the payment of monetization of housing distribution, has become fast and good way; from a practical point of view, the financial support for the real estate industry, indeed to promote the smooth transition of China's housing system, the monetization of housing reform has made great achievements. Therefore, from the reality of China's real estate reform, the reform of the housing system is inseparable from the market-oriented financial support, is inseparable from the development of real estate finance.

## The Inevitability of Financial Risks in Chinese Real Estate

First, the real estate industry has innate natural contact and high-risk sexual and financial decisions of the financial risks inherent in real estate. On the one hand, the real estate industry itself is a high input, high profit industry, inherently have high-risk sex; on the other hand, require a lot of money real estate and real estate development and application of "financial leverage" cannot determine the real estate funds Developers rely solely on its own funds, we must rely on financial instruments and financing. After the financial sector intervention real estate, real estate in the share of profits but also bear the risk of real estate. Therefore, real estate financial risks are bound to exist.

Secondly, China's real estate financing mainly rely on bank loans, leading banks to take most of the financial risk. From developed countries mature real estate market, real estate development and funding sources is very wide, in addition to bank loans, but also includes a variety of real estate investment funds, real estate trusts and other real estate bank loans up to a maximum of 40% of the

total investment. And the current situation of China, the three stages of the real estate development (access to land early stage, the construction stage and the sales stage) Each stage without the support of bank funds, specifically including real estate development loans, working capital loans, Construction business loans, mortgages and the like. In fact, in addition to the development of corporate self-financing, the remaining funds basically come from banks. According to our estimates, the current real estate development funds of about 60 percent from bank loans, and the central bank's analysis of this conclusion is also consistent. Clearly, China's current real estate business does exist the problem of high dependence on banks, once the real estate economic fluctuations, business risks will be converted into the bank's financial risks. In other words, China's real estate financial risk is mainly borne by the banking system [3].

#### The Financial Risk Prevention of Chinese Real Estate

The first is the financial institutions themselves normal operation requirements. To follow the effectiveness of financial activities, the above-mentioned safety risk, liquidity management principles, real estate finance, affecting both its operating safety may reduce its liquidity and they may jeopardize their operating efficiency.

Secondly, the healthy and stable development of real estate, real estate financial risks also requires prevention. Despite the risk of blind financial support, although it may temporarily "real estate bubble" blowing great, but the bigger the "bubble" burst more easily, in the end can only lead to the real estate bust; sound financial institution, will be in the larger The real estate front prohibitive financial risk, not financial support for the real estate development is very difficult.

Thirdly, to effectively improve the level of China's housing residents achieve reform of the housing system. The same must guard against financial risks of real estate. Effectively prevent and resolve risks, the financial sector in order to strongly support the residents borrow to buy a house. In order to form an effective demand for real estate market, promote the commercialization of housing, its own technology. Finally, due to the financial risk has negative external effects, indeed affect the whole body, to maintain the country's financial stability and economic stability in Southeast Asia to avoid the kind of financial and economic crisis, we must also guard against the risk of real estate finance [4].

#### The Model Construction of China Real Estate Financial Risk

Construct New Real Estate Financial System. According to international experience and China's national conditions, the new real estate financial system includes ten systems: legal systems, system monitoring system of financial institutions, funds operating systems, guarantees or insurance systems, personal credit information system, the secondary market systems, securities systems, property financial management system, the system of government subsidies.

Establish Flat-Type Network Monitoring System to Prevent the Mortgage Risk of Bank. Traditional bank mortgage risk control mechanisms to prevent vertical type monitoring system, it is not well to consider the relationship with the competition and the costs and benefits of complex internal processes, control the chain length, high cost, low efficiency, the actual effect is not ideal, in fierce competition in the market has lagged far behind, we cannot adapt to changes in the market. In this, the study advocates the establishment of a flat-type network monitoring system, which is mainly composed of decision management row, three information points and grass lines A, B, C three traffic composition. Transmission of information flow from the previous vertical to flat network type, network monitoring system for the real estate industry, developers and individual all-round monitoring and information flows through information point components.

Construct the Government Control and Manage System to Ensure the Safety of the Real Estate Economy. Government intervention in the real estate finance market is necessary, but must comply with the principles of the market mechanism. Government intervention in two forms: one is a direct intervention, one is indirect intervention. US government intervention in the real estate finance is built in a highly developed market system, it is an indirect intervention. From the goal of

economic reform, the real estate finance our intervention should also be indirect control. Ensure the economic security of government real estate control manager systems includes two systems: First, the government control manager target system; the second is the government control manager tool system [5].

Construct Finance Risk Control System of Real Estate. Faced with high risk characteristics of real estate industry, the financial industry in its fast-growing share of the cake at the same time, the need to maintain prudent and calm, and to take effective measures to avoid and control of real estate financial risks. Focus on research real estate market trends, to prevent systemic risk. First, set up the real estate market research center, in charge of real estate-related macro-policy side, the monetary policy side, capital, international capital, market dynamics and other information collection capture, and regular or From time to time the real estate industry to investigate, get real information, regularly provided to management decision-making reference. Second, pay close attention to developments in the real estate market, strengthen market analysis and research, to grasp the development of the market real estate, real estate development based on the overall situation of the local and regional situation and adjust the business direction and strategies for real estate finance business. Avoid mistakes on policy-oriented. Thirdly, we can based on a large number of reliable information and to strengthen the real estate market in the foreseeable risk analysis and assessment, and to develop unforeseen risk prevention mechanism, under appropriate conditions of risk in the pursuit of business scale and economic benefits maximized.

#### **Conclusions**

This paper analysis the current development and problems of China's real estate finance industry based on the scientific analysis of Chinese real estate finance development, explore the establishment of China's real estate financial development target mode, and perfect the Chinese real estate model and system to prevent financial risks, The purpose is to promote the healthy development of China's real estate economy, thus stimulating the steady and rapid development of national economy.

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