

Analysis of China's Real Estate Market Volatility and Financial Stability

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Abstract. Fluctuations in China's real estate market profoundly affect the economy, the financial system and social stability. Effective policy regulation, including the adjustment of monetary policy and the control of speculative behavior, is essential to mitigate market volatility and reduce financial risks. This paper uses the historical data analysis method and literature research method to conduct research and analysis based on the study of the meaning of financial stability. Firstly, it divides the historical fluctuation of China's real estate market into four stages and explores the characteristics and causes of real estate price changes in each stage. Thus, the historical fluctuation pattern of China's real estate market and the mechanism by which real estate market fluctuations affect financial stability are derived. The mechanism by which real estate affects financial stability through the personal wealth channel, the balance sheet channel, and the liquidity channel is explored. The findings of this paper can provide a basis for government decision-making and guide real estate practitioners and investors to grasp market fluctuations and avoid potential risks.

Keywords: Real Estate, Market Volatility, Financial Stability.

1. Introduction

China's real estate market has always been an essential part of the domestic economy, with far-reaching effects on the financial system and macroeconomic stability. Since the gradual opening of China's real estate market in the late 1990s, it has developed rapidly and become the focus of attention of all parties. However, in recent years, with the fluctuation of the market and the gradual emergence of the real estate cycle, the related risks and problems have gradually come to the fore. Against the backdrop of the international financial crisis, countries worldwide are reviewing and adjusting their financial systems, and China is no exception. The volatility of the real estate market, especially its interrelationship with the financial system, has become an essential topic for research. How to ensure financial stability while maintaining the healthy development of the real estate market has become a common concern for policymakers, scholars, and practitioners.

There are profound national economic propositions behind the topic selection of this thesis. Firstly, as one of the pillars of China's economy, the fluctuation of the real estate market is directly related to the stability of the national macro-economy. Secondly, the financial system is an essential cornerstone of the economy, and fluctuations in the real estate market may trigger financial risks and have a chain reaction on the whole financial system. Therefore, an in-depth study of the relationship between China's real estate market volatility and financial stability is of great theoretical and practical significance for preventing potential financial risks and maintaining the stability of the country's financial system. In addition, the thesis will provide suggestions for future macro policies through the analysis of the real estate market and financial system, providing a scientific basis for governmental decision-making. It also has important reference value for real estate practitioners, investors, and related industries to help them cope with market fluctuations and avoid potential risks.

The research methods used in this paper include the historical data analysis method and normative analysis method. Historical data analysis method: by reviewing the development history of the real estate market and the financial system in the past few decades, analyzing its development laws and stage characteristics, and providing historical experience reference for the current fluctuations. Normative analysis method: through collecting and reading the literature related to financial stability and the literature related to the impact of house price fluctuations on financial stability, summarizing

and summarizing the collected literature, comprehensively understanding the relevant concepts and theoretical knowledge, and understanding and recognizing the latest research results of financial stability and house price fluctuations on the stability of the financial market, researching the paths of house price fluctuations on the stability of the financial market, organizing the ideas, and constructing the overall framework of this paper. The overall framework of this paper is summarized.

2. Literature Review

2.1. Review of Studies on Financial Stability

Crockett defines financial instability as a situation in which the economy is harmed by fluctuations in the prices of financial assets or the ability of financial intermediaries to meet their contractual obligations, including the need for financial instability to be able to have a measurable impact on the economy, both in terms of the vulnerability of financial intermediaries and excessive volatility in the prices of financial assets [1]. Due to information asymmetry, Mishkin argues that the basic function of financial markets is to allocate funds to individuals or firms with productive investment opportunities [2]. Foot argues that the basic function of financial markets is to allocate funds to individuals or firms with productive investment opportunities [3]. Due to information asymmetry, the market has two problems, adverse selection and moral hazard, and financial instability implies that external shocks to the financial system exacerbate the problem, leading to the inability of the financial market to perform its basic function.

John argues that financial instability refers to a situation where financial markets, through the operation of the financial system, impair or threaten economic development, i.e., the market's resource allocation function [4]. Foot argues that financial stability requires that the value of the currency is stable, the level of unemployment is close to the natural rate of unemployment, the financial market system is functioning properly, and fluctuations in the price of money have little impact on the value of the currency and the rate of unemployment [3]. Allen and Gale define financial fragility as excessive sensitivity to shocks [5].

2.2. Overview of Studies on the Relationship between Housing Price Volatility and Financial Stability

Xiang studied the formation of credit cycles and the mechanism of its impact on financial stability based on behavioral finance [6]. The study results showed that, under the premise of bankers' cognitive bias, when the upward and downward inflection points of economic fluctuations occur, there is a group refusal to lend or over-lending, which impacts financial stability. Scholars incorporated banks and asset prices into a macroeconomic model to study default risk in the financial system. They concluded that economic instability arises from credit interaction, asset prices, and credit losses.

Wang shows that the continuous expansion of bank credit will lead to a rapid increase in housing prices, which is likely to give rise to housing price bubbles and bring greater real estate financial risk [7]. In addition, the volatility of housing prices will exacerbate the credit risk of banks. Jiang conducted an in-depth study on the construction of financial stability indicators combined with the International Monetary Fund [8]. The People's Bank of China focuses on indicators at the same time but also combines the ideas of many researchers at home and abroad, and according to China's national conditions to choose the appropriate, authoritative data sources of indicators, that real estate price changes relative to other variables have a greater explanatory power of the financial stability index. It shows that changes in real estate prices can affect the operation of the financial system through many channels.

Gao argues that the high leverage and indebtedness of the real estate industry make it have high systemic risk, which affects the financial system through many channels [9]. The real estate industry involves many upstream and downstream sectors, and its development prospects will directly impact the strength of the loan repayment ability of customers in many sectors, thus affecting the banking

system. From the point of view of the banking system, the bank's credit limit to the real estate industry is enormous and concentrated; once the real estate industry risk signals, the banking industry will directly face a credit crisis; real estate as loan collateral for many credit customers, its price fluctuations may also trigger a crisis of depreciation of the bank's collateral, in addition to the fluctuation of housing prices will also affect the consumer's investment and consumption behavior through the wealth effect to affect the economic situation.

Li argues that due to many different factors, such as the economic situation, population size, and geographic location of cities [10]. The degree of development and financial stability of the real estate industry vary and the government should continue to implement one-city-one-policy management measures for the region, and step up the implementation of the land supply policy; based on this, all levels of government should continue to adopt targeted policies of renting and selling and to create a diversified housing system. Wang found through his research that financial stability is mainly affected by the vulnerability of financial institutions, macroeconomic conditions, and asset price fluctuations [11]. Real estate prices are primarily determined by market supply and demand and are affected by the domestic macroeconomic situation, land policies, and financial credit funds. Real estate price volatility affects the financial system's stability through its impact on the financial system, including banks and the macroeconomy. Globally, the policy tools used more frequently by different countries to regulate the real estate market include debt-to-income ratios, capital requirements for the housing sector, and interest rates on reserve funds.

3. Analysis of China's Real Estate Market Volatility and the Mechanisms Affecting Financial Stability

3.1. History of Real Estate Price Volatility

In 1998, China initiated a welfare housing system overhaul, implementing a new home mortgage policy by 1999. This marked the beginning of the real estate sector's transition to marketization, leading to significant growth (see figure 1). Real estate is now a key pillar of China's national economic development. Marketization has brought about consistent changes in pricing, featuring both trend and cyclic fluctuations. Trend fluctuations indicate long-term patterns of sustained increases, while cyclic fluctuations represent short-term periods of alternating ascent and descent (see figure 2).

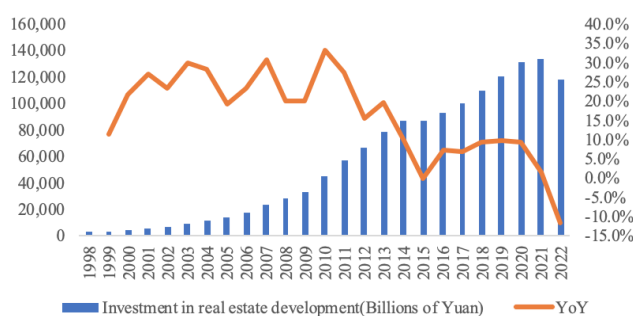


Figure 1. Change in Investment in real estate development (Photo/Picture credit: Original)

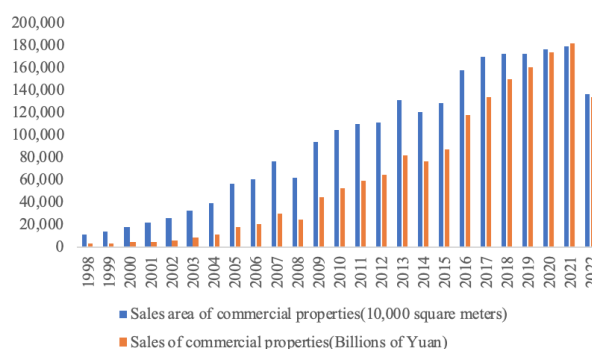


Figure 2. Change in sales of commercial properties (Photo/Picture credit: Original)

From 1999 to 2004, China's real estate sector experienced standardized development, marked by rapid growth and improved operational mechanisms. In 2001, increased government support for housing consumption effectively utilized surplus unsold properties, propelling the market into a swift expansion until 2004. However, this peak witnessed an abnormal surge, causing an overheating of real estate investment. Commodity housing prices steadily rose from -0.4% to 15.02%, and guided by national macro policies, GDP growth rates surged from 6.25% to 17.68%.

From 2004 to 2010, a new real estate cycle saw rapid pre-2005 price surges. In response, the government regulated land use, credit, and tax policies in 2005, marking a new market phase. Despite positive economic growth, the real estate sector faced challenges post-2007 due to the financial crisis. In 2008, commercial real estate prices dropped significantly by -1.66% compared to 1999. Macroeconomic development experienced a downturn. Starting in 2009, the government eased monetary and fiscal policies, boosting liquidity and attracting capital to the real estate market. The 2010 decline in commodity housing prices reflected the cumulative effects of years of state regulation.

From 2010 to 2014, China's commodity housing prices remained stable, reflecting active and effective state regulation. Some cities saw price declines due to excess housing supply, surplus funds, and higher interest rates on land and development loans. In 2015, while certain cities experienced a notable rebound, most continued lowering prices. Overall, housing prices trended upward, influenced by China's economic downturn in 2015, cautious monetary policies, and government interventions. The central bank responded by implementing multiple reductions in quotas and interest rates.

3.2. Analysis of the Mechanism Affecting Financial Stability

Fluctuations in real estate prices play a crucial role in influencing financial stability by impacting fluctuations in individual wealth. Real estate constitutes a significant portion of personal assets, and its price volatility can have notable effects on individual consumers. Most individuals who depend on bank loans for real estate transactions experience a positive correlation between real estate prices and economic cycles. The accessibility of credit, in turn, influences household consumption and business investment. Given that mortgages represent a substantial portion of overall bank lending, the oscillations in real estate prices affect financial stability by influencing collateral value. During economic downturns, real estate prices decline, reducing financial resources for households and businesses through collateralized assets. This diminished capital supply subsequently affects various aspects of the real sector, impacting inputs and outputs. Consequently affecting operating profits. Conversely, rising real estate prices contribute to increased collateral values in periods of economic upturns. This enables households and businesses to secure more substantial bank loans, leveraging their collateralized assets. Consequently, families expand their consumption, and businesses escalate their capital investment. This amplifies the bank's credit scale, enhancing its influence on financial stability.

Real estate price fluctuations impact financial stability through the balance sheet channel, influencing households and financial institutions' asset and liability structure. In rising real estate values, families experience an increase in their assets as the value of owned properties rises. This, in turn, enhances their borrowing capacity, as real estate can be collateral for loans (see figure 3). Financial institutions, witnessing the appreciation of collateral values, may extend more credit, further fueling economic activity. Conversely, during real estate downturns, the value of assets on households' balance sheets decreases, constraining their ability to borrow. Financial institutions face the risk of collateral erosion, potentially leading to a reduction in lending and a tightening of credit conditions. This balance sheet effect magnifies the impact of real estate market fluctuations on overall economic dynamics, influencing consumption, investment, and, consequently, the financial system's stability.

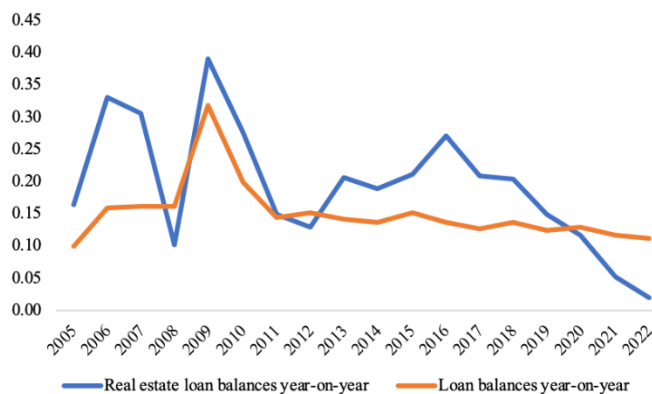


Figure 3. The decline in the growth rate of financial institutions' loan balances to real estate after 2020 (Photo/Picture credit: Original)

Real estate volatility affects financial market stability through the bank liquidity channel. Many banks face the challenge of a "short-termization of funding sources and long-termization of fund utilization." Predominantly reliant on customer deposits and interest income, particularly short-term customer deposits, banks extend loans with a longer maturity, notably in real estate mortgage loans with terms up to 30 years. This creates a pronounced maturity mismatch issue. During housing market upswings, rising property values reduce credit risk, prompting banks to expand credit extensively, especially in real estate loans. This exacerbates the maturity mismatch problem, leading to liquidity challenges. Large withdrawals or runs and cash flow issues in lending enterprises pose liquidity risks, adversely affecting the financial market's stability.

Conversely, in a declining housing market, non-performing loan rates rise. Due to real estate market illiquidity and information asymmetry, banks may experience challenges liquidating collateral, further depressing housing prices, and escalating banking system risks. Heightened risk triggers panic among enterprises and individuals, leading to simultaneous cash withdrawals and a potential bank run, risking insolvency and jeopardizing financial market stability.

4. Conclusion

This thesis provides an in-depth analysis of the volatility and financial stability of China's real estate market. It draws some crucial conclusions by studying the historical development of the real estate market, policy regulation, and the impact of financial factors. First, the volatility of China's real estate market has profoundly impacted the economy and financial system. Excessive volatility and unstable market conditions may trigger financial instability and have a negative impact on the national economy. In addition, volatility in the real estate market may also affect social stability, especially when the housing issue becomes the focus of social concern. Second, policy regulation plays a crucial role in maintaining the real estate market's stability and the financial system's health. Governments can effectively mitigate market volatility and reduce financial risks by adjusting monetary policy, controlling speculation in the real estate market, and establishing sound regulatory mechanisms.

In response to the above analysis, the following suggestions are given. First, improve the adequate supply of the real estate market. Break the thinking that each province and city's land resource situation establishes a land-use bottom line. First, select a cross-regional land use planning mechanism to promote cross-regional allocation and rational utilization of land resources. In addition, encourages urban renewal and secondary land development to improve the efficiency of land utilization. The government can reward urban renewal projects and enable enterprises to participate in land redevelopment by formulating incentive policies to improve the comprehensive utilization of land. Second, moderate management regulation of real estate demand. To moderately regulate the management of real estate demand, the government can introduce a differentiated home-buying policy. By adopting differentiated policies for the different needs of home buyers, the market can be guided more precisely. For example, more home-buying incentives should be given to first-time

homebuyers, and differentiated tax policies should be implemented for second-time and above homebuyers. In addition, differentiated policies can be formulated according to the real estate market conditions in different cities to better suit the actual situation in each place. In terms of demand management, surveys and analysis of real estate market demand can be strengthened to keep abreast of dynamic changes in the market. The government can establish a sound information collection and analysis system and use big data technology for real estate market monitoring and early warning to adjust policies promptly.

In addition, moderate policies should be adopted to bring housing prices to a smooth landing, avoiding over-stimulation or drastic tightening. In terms of monetary policy, it can be kept moderately loose but avoid excessive relaxation leading to market speculation. In terms of real estate market regulation, differentiated policies can be adopted, with different regulatory measures for different cities and regions and targeted policy adjustments based on the actual market situation. At the same time, the review of real estate loans should be strengthened to control the occurrence of speculative behavior strictly. Strengthen the supervision of financial institutions to ensure that they follow strict risk management standards when granting real estate loans. Establish a sound loan vetting procedure, conduct a comprehensive assessment of the creditworthiness of borrowers, and put an end to the occurrence of speculative behavior. In addition, differentiated lending policies can be adopted, with more lenient lending conditions for borrowers with clear home-buying objectives and more stringent loan vetting for speculative home-buying borrowers. Through these measures, speculative behavior can be effectively curbed, reducing market volatility.

Finally, improve the real estate financial market expand real estate financing channels. Encourage real estate enterprises to raise funds through diversified financing methods, such as issuing real estate trusts, corporate bonds, etc. Strengthen cooperation with financial institutions to promote the development of real estate securitization and improve the financing efficiency of the real estate market. The government can also guide more long-term funds into the real estate market and attract institutions such as pension funds and insurance funds to invest in the real estate sector by establishing a sound long-term investment mechanism. Through these measures, the financing costs of real estate enterprises can be reduced, market liquidity can be improved, and the smooth development of the real estate market can be promoted.

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