

The Enlightenment of the American Subprime Mortgage Crisis to the Development of China's Real Estate Industry

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Abstract. This paper examines the evolution of China's present real estate market and the illumination of the American subprime mortgage crisis through an analysis of the latter. The article explains and analyzes the causes of the subprime crisis, and then discusses its impact on the American real estate industry at that time. Subsequently, through the analysis of the supply and demand of the Chinese real estate industry, it is believed that China's real estate sector has three related points to the American real estate industry during the subprime crisis. Firstly, the excessive confidence in the US market and the large population of some cities in China. Secondly, the financial derivatives and the management of them in the US market and the Chinese market. Thirdly, the excessive issuance of personal credit in the US market and the loose regulation of property companies in the Chinese market. At the end of the paper, based on the experience learned from the US subprime mortgage crisis and taking into account the position of the Chinese real estate market today, preventive measures and countermeasures are put forward to provide a reference for future risk prevention.

Keywords: Subprime mortgage crisis, Real estate industry, United States, China.

1. Introduction

The US subprime mortgage crisis is one of the most serious financial crises at the beginning of the 21st century, and its outbreak has had a significant impact on the global economy. Analyzing the causes of it, can provide some important warnings for the Chinese real estate market risk, and remind relevant departments and investors to pay attention to the real estate market bubble, and financial risk. It can remind the government to take timely measures to prevent risks, help to strengthen risk prevention, improve regulatory policy, and standardize the market order, to facilitate the sustained and healthy expansion of China's real estate sector.

In the preceding decades, innovation in financial markets, policy easing, and improper credit practices have been intertwined, leading to the expansion of the subprime market [1]. The causes of the subprime mortgage crisis include financial innovation, policy easing, and improper credit practice. Among them, the government's excessively loose monetary policy and low interest rate environment have promoted excessive lending and investment, financial innovation, regulatory loopholes and excessive accumulation of private debt have become one of the main reasons for the commencement of the crisis [2]. The influence exerted by the subprime mortgage crisis on the American real estate industry at that time can not be underestimated. The expansion of the subprime mortgage market has gradually eased bank lending standards, leading to more high-risk loans. With the bursting of the housing market bubble, the stock market collapsed, unemployment increased, and house prices fell, aggravating the default risk of mortgage debt and ultimately resulting in the failure of financial institutions [3]. At present, China's real estate market is in the adjustment stage. In 2023, the supply and demand demands are still weak, the housing market is expected to experience a sustained decline in prices, and the real estate inventory level will rise. At present, China's real estate-related policies are relatively loose, which helps the real estate market to bottom out [4].

This paper aims to analyze the causes, experiences, and results of the subprime crisis, and combine its experience and lessons with the present circumstances of China's real estate industry to provide relevant strategies and suggestions. This paper analyzes the present circumstances of China's real estate market. While examining the supply and demand of China and policy adjustment of the real

estate market in China, and it introduces practical cases and data to highlight the characteristics and challenges of the market. This paper also undertakes a comparative analysis between the present state of China's real estate sector and the subprime mortgage crisis that occurred in the United States, specifically examining the direct causal factors associated with subprime lending, such as the corresponding interest rate situation, the loan situation, and the market situation, to make a judgment on the risk situation of China's real estate industry [5]. On the foundation of the lessons of the subprime mortgage crisis, aiming at the present circumstances of China's real estate industry, this paper proposes risk response strategies based on China's actual situation, to provide a reference for future risk prevention.

2. The Development Status of China's Real Estate Market

Poor sales and debt accumulation have sent China's real estate industry into a downturn. On the revenue side, in 2023, the commercial housing sales area was 1117.35 million square meters, down by 8.5% compared with the preceding year, among which residential sales area decreased by 8.2%. The commercial housing sales reached 11.6622 billion yuan, down 6.5%, among which the sales of housing decreased by 6.0%. By the end of 2023, the area of commercial housing available for sale reached 672.95 million square meters, representing a significant growth of 19.0% compared to the preceding year. Within this total, the residential segment experienced a more pronounced increase, rising by 22.2%. The real estate market has slipped into a state of profound melancholy, and the existing policies to regulate the local production market seem to only increase sales in the short term, but not last. On the debt side, large developers are at risk of being unable to repay their loans. Despite the current downturn in China's property market, the property sector remains at the heart of China's economy. It is a significant embodiment of residents' wealth and an important source of government income. The downturn of China's real estate market will affect the entire Chinese economy. China's population has peaked, but the demand for first-time home ownership and improvement remains huge, and the regional differences are huge. Currently, the government has introduced a variety of measures and strategies to support the weak property market. For example, buyers who have previous mortgage records in the city can enjoy preferential policies similar to the first house. Similar policies also unify the down payment ratio for commercial loans for first and second homes, lower the interest rate for second homes by 40 basis points, and lower the interest rate for commercial loans for existing housing. However, despite these government measures, the real estate market is still relatively abundant, especially in some underdeveloped cities. Consequently, China's real estate market exhibits a state of uneven development. The prices of houses in some hot cities continue to rise, while the market in some third-tier and fourth-tier cities is relatively quiet, with large regional differences.

3. Causes of Subprime Crisis and the Correlation Analysis with China

3.1. The Cause of the Subprime Mortgage Crisis

The subprime mortgage crisis began in the early 20th century and primarily resulted from many elements such as financial innovation, policy easing, and the housing price bubble. This crisis broke out in 2007 and is a typical financial crisis, it includes uncommon fluctuations in asset prices and credit volume, substantial disruptions to credit markets, alongside the liquidity and solvency of financial institutions [6, 7]. The consequences have had a severe impact on the US housing market and the financial system, and also around the world.

A subprime mortgage is a high-risk mortgage secured by borrowers with poor credit. These loans often have higher interest rates to cover the potential credit risk. These subprime mortgages are sometimes packaged into complex financial instruments, such as mortgage-backed securities and secured bonds, which are then traded within the realm of financial markets. Before the subprime crisis, the development of the subprime mortgage market led financial institutions to excessively relax the standards for checking borrowers' credit. To meet their investment needs, some financial institutions

began issuing high-risk loans, which were later packaged into complex financial products and spread throughout the financial system.

The U.S. neoliberal economic policy is one of the main causes of the subprime crisis. An important part of the neoliberal policy is the weakening of financial regulation. At that time, the United States promoted financial liberalization and financial innovation. Many laws established around 1990 promoted the so-called financial speculation and financial innovation in the financial market at that time. Falling interest rates, the speed of asset secularization and financial derivatives innovation were accelerating, and a large number of highly leveraged loans appeared. Several consumers borrowed money into the seemingly promising housing market through mortgages [8]. The United States subprime mortgage market typically employs a mixed approach of fixed and variable rate repayment mechanisms. Under this arrangement, purchasers are required to repay the loan at a fixed rate during the initial years following the purchase, subsequently transitioning to a variable-rate repayment schedule. As shown in Fig. 1, since then, interest rates in the United States have continued to rise and some consumers may default. At this time, the housing market has continued to cool. Although banks have the right to sell the houses of defaulting consumers, banks will still lose money due to lower housing prices. Such a large scale eventually led to the subprime crisis.

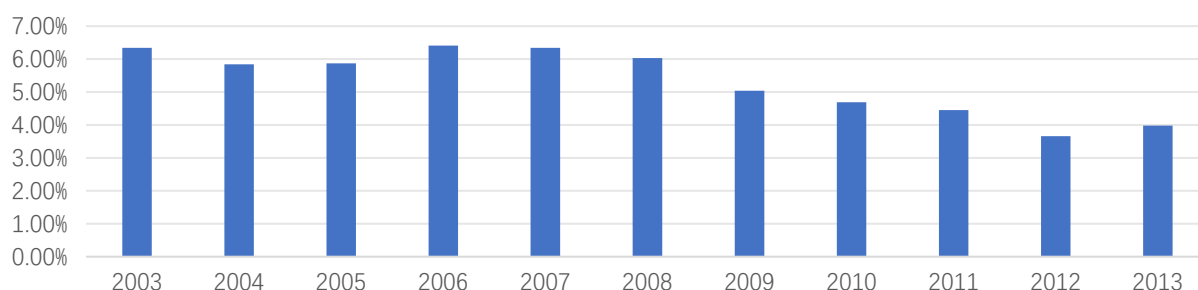


Figure 1. U.S. Mortgage Rates from 2003 to 2013

3.2. The Impact of the Subprime Crisis

The subprime mortgage crisis led to a collapse in the housing market and a collapse in housing prices. Many subprime mortgage holders were unable to repay their loans, and lots of properties were auctioned off by banks, leading to an oversupply in the housing market. This oversupply has led to falling house prices, with many homeowners finding their properties in value below their loan balance, which in turn has produced massive property mortgage defaults, creating a vicious circle. As shown in Fig. 2, the US housing index peaked in 2006 and then began to fall. And the subprime mortgage crisis has seriously shaken the stability of the U. S. financial system. Many financial institutions hold assets related to subprime mortgages, and the value of these assets has fallen sharply, causing many banks and financial institutions to face huge balance sheet problems. Some large financial institutions are even at risk of bankruptcy, while others are struggling with the credit crunch and liquidity problems.

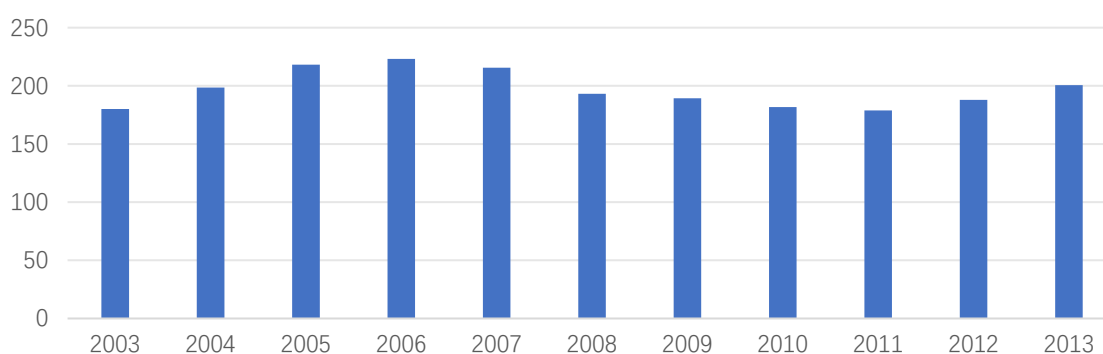


Figure 2. U.S. Housing Index from 2003 to 2013

The subprime mortgage crisis has also had a long-term impact on the US economy. As shown in Fig. 3, the job market has been hit hard, with the unemployment rate rising quickly. Many financial institutions and real estate-related industries were cutting jobs which caused unemployment to rise sharply. The lending market has also been severely damaged, with banks starting to tighten lending standards and many consumers and businesses struggling to obtain financing. This has led to a decline in consumption and investment, hampering economic growth.

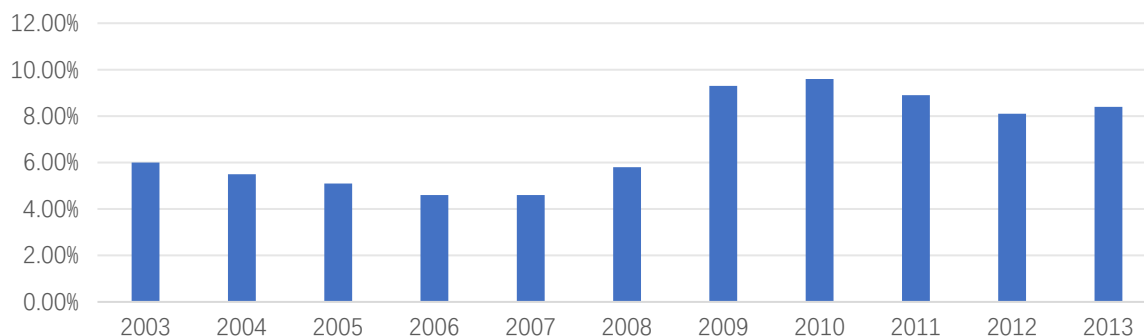


Figure 3. U.S. Unemployment Rate from 2003 to 2013

The final subprime mortgage crisis exerted a detrimental influence on U.S. GDP. The collapse of the housing market, the turmoil in the financial system, and the recession in the job market have all led to a slowdown in economic activity. As shown in Fig. 4, between 2008 and 2009, the United States experienced a severe economic recession, with GDP falling sharply and many industries and businesses being hit hard.

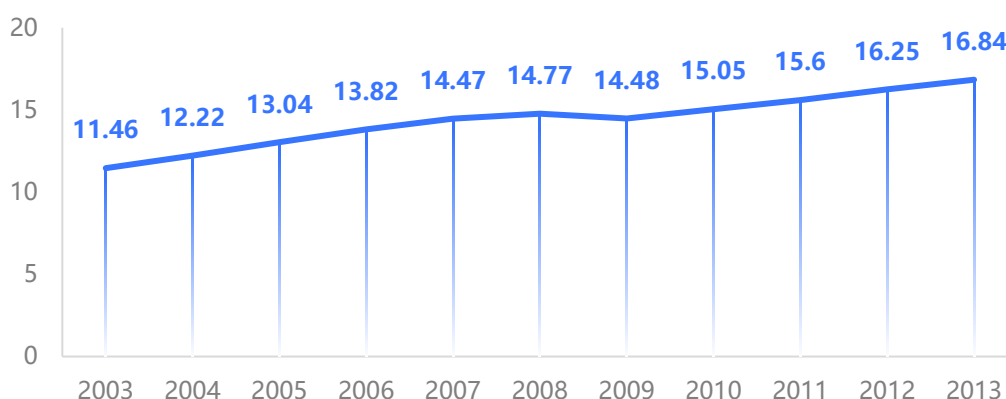


Figure 4. U.S. GDP from 2003 to 2013

3.3. Correlation Analysis of US and China's Real Estate Market

During the subprime mortgage crisis, the real estate market experienced a significant period of inflated values, resulting in a bubble. The housing prices rose too fast, and the bad assets in the mortgage trading increased. China is currently facing a similar situation in some regions. Previously, housing prices in some developed cities have risen rapidly, which is likely to cause real estate bubbles. As shown in Fig. 5, for example, in 2023, first-tier cities such as Shenzhen, Beijing, and Shanghai will be 35.5, 29.8, and 29.4 respectively. However, the bubble in the local U.S. market was mainly due to excessive confidence in the housing market and the excessively loose rating criteria for issuing personal credit. In contrast, China is also facing high housing prices in some regions, which is easy to cause bubbles. The surge in housing prices can be primarily attributed to the significant influx of population resulting from the accelerated urbanization process and the subsequent increase in population density. This, in turn, generates a substantial demand for real estate, ultimately propelling the escalation of housing prices.

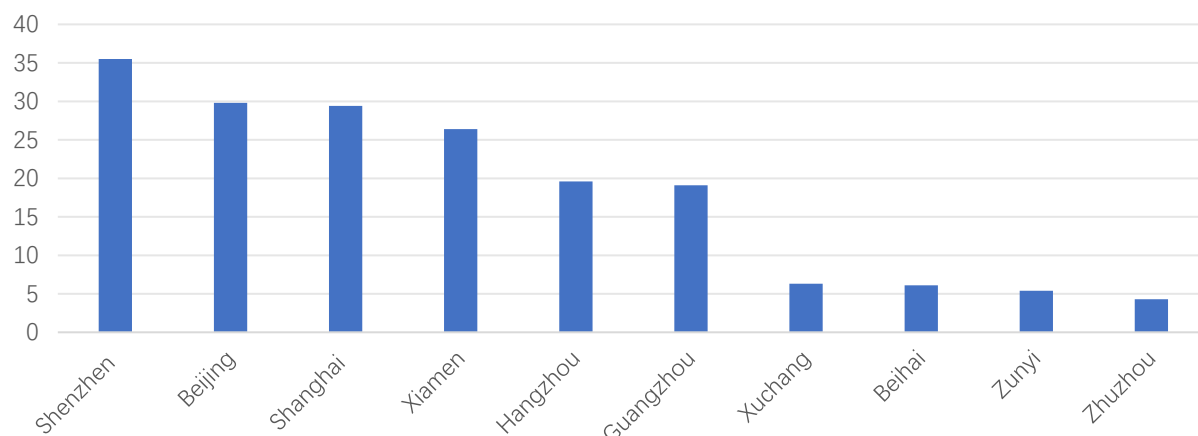


Figure 5. Housing Price-to-Income Ratio in some cities in China in 2003

In addition, during the subprime mortgage crisis, financial innovation was excessive, and financial products were complicated, which caused risks. There are also some financial innovations in China, such as trust and asset-backed securities, which also add to the uncertainty of the financial system. Different types of derivatives, each with pros and cons, are brought about by the financial industry's innovation. The benefit lies in the fact that it allows financial market economic actors to reallocate risks and rewards, while simultaneously enabling banks and other financial institutions to actively mitigate risk. Its flaw is that it will increase financial risk because banks and other financial organizations need to be able to supervise financial affairs at a higher level and manage risk better. From the standpoint of China's financial institutions, even though a limited number of large banks and other financial institutions can capitalize on their internal resources and international business expertise to enhance their quantitative risk analysis abilities, risk pricing abilities, and the quality of their management tools, the majority of them have not yet attained a high level of risk management. This condition limits their capacity to innovate in financial derivatives, which could potentially enhance the level of financial risk management.

Finally, one of the crucial elements for the outbreak of the subprime crisis is the excessive issuance of subprime loans. In 2001, the total amount of subprime loans issued in the United States was \$94 billion, but it increased more than seven times in 2006 to \$685 billion [9]. The excessive relaxation of personal loans drove the rapid expansion of American private debt, and eventually in the context of rising mortgage rates, a large number of private loans could not be repaid, leading to the collapse of the financial system. Countries that exhibit a higher level of domestic credit often exhibit greater sensitivity to the repercussions of financial crises [10]. Predatory lending has led to a high mortgage default rate of subprime borrowers, contributing to the emergence of the subprime crisis [11]. A similar situation is true in China's property market, but the relaxed regulation is more about property companies than the relaxed criteria for personal loans. The loose regulation leads to some real estate enterprises appearing to have some risky operations. For example, real estate enterprises take advantage of the commercial housing pre-sale system loopholes, real estate developers borrow money, take land, construction, and pre-sale to obtain the down payment and bank mortgage installment, and then return the land payment, to achieve a high turnover of funds. In this model, real estate developers are risk-free, buyers have lower risk, while savers and banks bear higher risk. This business model allows real estate developers to have high leverage to obtain large land reserves in a short period, throwing risk away to the financial system. If there is a broken capital chain, it will form a chain reaction, thus inducing a crisis of similar severity to the subprime mortgage crisis.

4. Suggestions for China's Real Estate Industry

A key contributing factor to the subprime mortgage crisis is that the financial regulatory mechanism is out of control. The excessively loose monetary policy implemented by the US government has prompted excessive consumption of residents and financial institutions to adopt a

highly leveraged management model, resulting in asset price bubbles, which has led to the outbreak of the subprime mortgage crisis [12]. This is undoubtedly very dangerous. In contrast, China's loose supervision of real estate enterprises is required, so the government should formulate effective loan standards to prevent real estate enterprises from taking advantage of the loopholes in the system to transfer the risk to banks and other enterprises [13]. In addition, the asset and liability management of banks and financial institutions should be strengthened to ensure that risks are fully assessed and controlled, and the government should better play its regulatory and macro-control role in the financial market. In addition, China should create and enhance the financial derivatives pricing model, incorporate the reality of domestic financial innovation, and absorb more from other countries' sophisticated risk management experiences, to strengthen the construction of risk management level on the premise of creating a good environment for China's real estate loans.

In addition, the government should promote real estate tax reform, including taxation on vacant property, to encourage more effective use of real estate resources. As well as reducing tax incentives for speculative housing purchases, avoid investors blindly chasing short-term profits, and strictly avoid the spread of speculative arbitrage. One of the reasons for the outbreak of the subprime crisis is that due to the broad prospect of the real estate market, consumers greatly increased the demand for housing purchases to carry out speculative arbitrage, resulting in the false and prosperous of the market [14]. The rapid rise of the housing price in China's real estate market has also caused more speculative and arbitrage behavior. To avoid the collapse of the subprime crisis, the Chinese government should improve the provisions of the purchase restrictions to prevent speculators from making profits through frequent speculation, and the establishment of an information sharing system to ensure that the real identity of the buyers and the purchase history can be traced.

5. Conclusion

Through the analysis of the causes of the subprime crisis and the present condition of China's real estate market, this paper explores the similarities and differences between the American real estate market and the Chinese real estate market in the subprime crisis. Compared with the subprime crisis when the American real estate market excessively lost personal credit system and the market, today's Chinese real estate market problem mainly lies in the Chinese government's real estate enterprise loose regulatory system and parts of population growth lead to excessive demand for real estate, lead to some real estate enterprise use policy loopholes and some prices rise. Through research, the enlightenment of this paper is that the Chinese government should improve the supervision policies on real estate enterprises, strengthen the construction of risk management level, and take measures to improve housing-related policies according to local conditions.

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