

The Impact of the Continuous Spread of Real Estate Risk on the Financial System in China

Tian Wang, Yuyu Zheng*

School of Management and Economics, The Chinese University of Hong Kong(Shenzhen), Shenzhen, 518000, China

**Corresponding Author*

Keywords: Chinese real estate, credit crises, real estate finance

Abstract: The recent real estate industry continues to experience credit crises, with the scope of these crises expanding. Current public data indicates that the proportion of major financial products involving real estate is limited. Moreover, banks, as the primary holders of real estate-related financial products, have passed the stress tests conducted by the central bank. Therefore, the direct impact of the real estate crisis on the financial system is limited and is not expected to trigger systemic financial risks at present. However, given the large scale of the real estate industry, its long industrial chain, and its close relationship with the macroeconomy and local finances, as well as its significant impact on the capital market and consumer confidence, the continuous spread of real estate risks will have extensive indirect effects on the economy and finance.

1. The Recent Credit Crisis in the Real Estate Industry

1.1 Private Real Estate Developers Remain Deeply Mired in Crisis

Country Garden, which once led the industry in sales scale for several consecutive years and was designated as a "model enterprise" by regulatory authorities, has encountered a debt crisis following a series of negative public opinions. SOHO China, which focuses on high-end property holdings in first- and second-tier cities, announced in mid-August that it had failed to pay nearly 2 billion yuan in taxes, potentially triggering cross-defaults on bank loans. Evergrande, which has been in default for two years, has made no significant progress in debt resolution. It has been investigated by the China Securities Regulatory Commission (CSRC) for alleged violations of information disclosure regulations and recently filed for bankruptcy protection in the United States, indicating that its actual financial condition may be more severe than disclosed[1].

1.2 Credit Risk Spreads from Private to State-Owned Real Estate Developers

On August 14, Sinoocean, a state-owned real estate developer that had been selling assets to rescue itself, formally announced a default due to its inability to pay bond interest and forecasted a significant loss of nearly 20 billion yuan in the first half of 2023. On the same day, Greenland, another state-owned real estate developer, also formally announced a default after failing to pay

bond interest within the grace period, despite attempts at debt restructuring and other self-rescue measures[2]. These two defaults, announced on the same day, shattered the "state-owned enterprise belief" in the real estate industry and further weakened the confidence of the capital market and homebuyers in the sector. Central government-owned real estate developers have not yet defaulted, but three companies—Overseas Chinese Town, China Communications Construction Real Estate, and Grand Metropolis—reported losses in either 2022 or the first half of 2023.

1.3 Half of the Top 100 Real Estate Developers Have Defaulted

According to media statistics, approximately half of the top 100 real estate developers by total sales in 2020 have defaulted. Among them, five of the top 10 developers, ten of the top 20, and 28 of the top 50 developers have defaulted. This indicates that the current crisis in the real estate industry is widespread[3].

2. Relevant Public Data Indicates That the Real Estate Crisis Will Not Trigger Systemic Financial Risk for Now

The transmission of the real estate credit crisis to the financial system primarily occurs through financial products leveraged by real estate developers and homebuyers. Once a credit crisis occurs, the corresponding financial products fail to pay out, leading to risks for investors and financial institutions. Although the real estate crisis continues to evolve and its impact is expanding, current public data show that the proportion of real estate-related financial products in China is limited. Moreover, banks, as the main holders of these products, have passed the central bank's stress tests. Therefore, the real estate crisis is not expected to trigger systemic financial risk for now.

2.1 Bank Loans: Real Estate Developer Loans Account for Only 6%, with Controllable Non-Performing Loan Rates and Derivative Risks

Bank loans are the most important channel through which the real estate credit crisis spreads[4]. First, the scale of real estate-related loans is substantial. As of June 2023, the balance of real estate-related loans in China remained at 53.4 trillion yuan, the largest among real estate financial products. This includes 38.6 trillion yuan in personal housing loans and 14.8 trillion yuan in developer loans[5]. Second, bank deposits have a rigid redemption attribute. Unlike corporate bonds and trust products, the source of loan funds—bank deposits—has a rigid redemption attribute, which is closely related to financial and social stability. Deposit runs are also one of the main characteristics of financial crises.

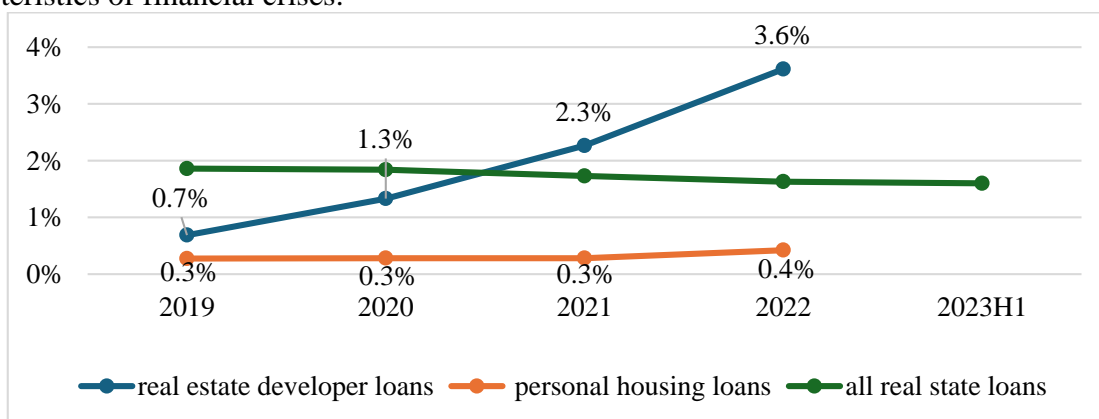


Figure 1: Non-Performing Loan Rate of Commercial Banks[5]

After 2019, affected by the real estate credit crisis, the non-performing loan (NPL) rate of commercial banks' developer loans has continued to rise (Figure 1), surpassing the overall loan NPL rate in 2021 and reaching 3.6% at the end of 2022. With the ongoing evolution of the developer credit crisis, the NPL rate is expected to rise slightly in 2023. In contrast, the NPL rate for personal housing loans has remained relatively stable at a low level, with only a minor increase of 0.1 percentage point in 2022.

According to the current relevant data, the risks associated with bank loans remain relatively manageable, mainly for three reasons:

Firstly, the proportion of real estate-related loans in total bank loans is not high. The year-on-year growth rate of real estate-related loan balances has gradually decreased since 2019 (Figure 2). In 2023, due to factors such as the downturn in the real estate market and early repayments by residents, the balance of real estate-related loans has seen almost zero growth. After the implementation of the centralized management policy for real estate loan quotas in 2021, the proportion of real estate-related loans in total loan balances has also gradually decreased. By the end of the first half of 2023, this proportion was approximately 23%, down by 6 percentage points from its peak of 29%. Among these, developer loans account for only 6% of total loans, with the overall proportion being manageable. The personal housing loans, which account for a larger share, are relatively low-risk[6].

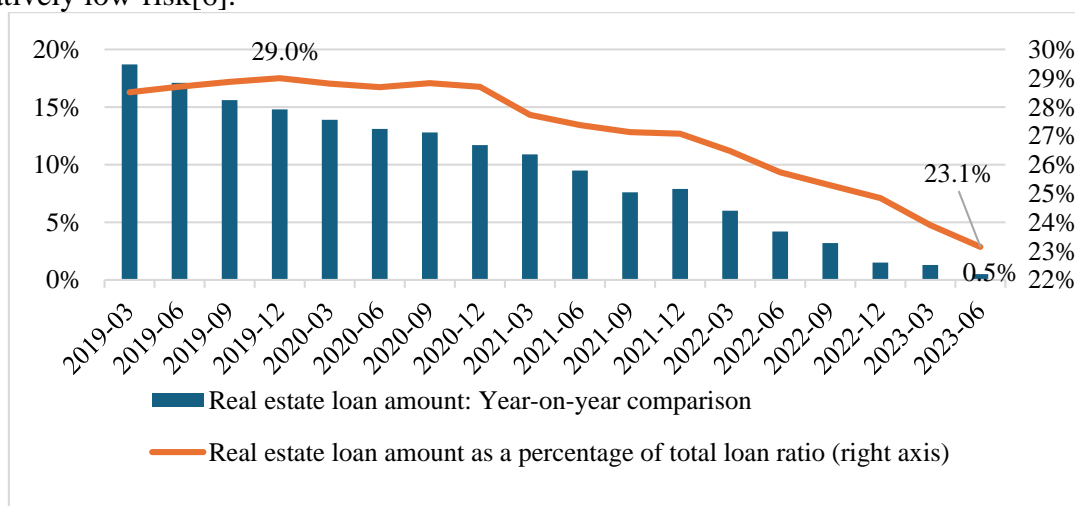


Figure 2: The Growth Rate and Proportion of Real Estate-Related Loan Balances Continue to Decline[6]

Secondly, the non-performing loan (NPL) rate of real estate-related loans remains relatively low. Although the NPL rate for developer loans has continued to rise, it remains below the regulatory requirement of 5%. The overall NPL rate for real estate-related loans, including personal housing loans, is approximately 1.1%. Since 2019, the total NPL rate has remained stable despite the increase in developer loan NPL rates, reaching only 1.6% in the first half of 2023. This is significantly lower than the regulatory requirement and far below the historical peak of 18% at the end of 2003.

Thirdly, the derivative financial risks associated with real estate-related loans are controllable. During the 2008 subprime crisis in the United States, the spread of the real estate market crisis to the financial system was largely driven by mortgage-backed securities (MBS) and the high leverage and chain reactions they brought. In contrast to the United States, where the securitization rate of real estate loans reached 40% before and after the subprime crisis, China's mortgage securitization rate was less than 3% as of June 2023[7]. Additionally, the average loan-to-value ratio for mortgages in China is below 66%, compared to 86% in the United States. Moreover, Chinese

mortgages are recourse loans, meaning that borrowers are still liable for the difference between the proceeds from the disposal of the property and the remaining loan amount in case of default. This significantly reduces the derivative risks borne by Chinese banks compared to those in the United States (the existence of recourse is also a major reason why the default rate among Chinese residents is much lower than that in the United States).

2.2 Bonds: Developer Bonds Account for Only 1.17%, with Institutional Investors as the Main Holders

Bonds are the most closely watched financing instruments for real estate developers in the capital market and society. Unlike bank loans, whose specific information is almost entirely undisclosed, bonds have a higher level of transparency. Under the requirements of regulatory authorities and stock exchanges, risk events and defaults must be announced. Therefore, bond defaults attract significant attention and are often considered a hallmark of a developer's credit crisis. They are also an important factor in triggering cross-defaults in other financing instruments.

In the second half of 2020, affected by the implementation of the "Three Red Lines" policy, bond defaults by real estate developers began to increase (Figure 3). In 2022, the average monthly default amount reached 13.7 billion yuan, with an average of 25 defaults per month. In 2023, the debt crisis in the real estate industry continued to evolve. Although the default amounts and frequencies were slightly lower than in 2022, they remained significantly higher than in 2021 and earlier years[5].

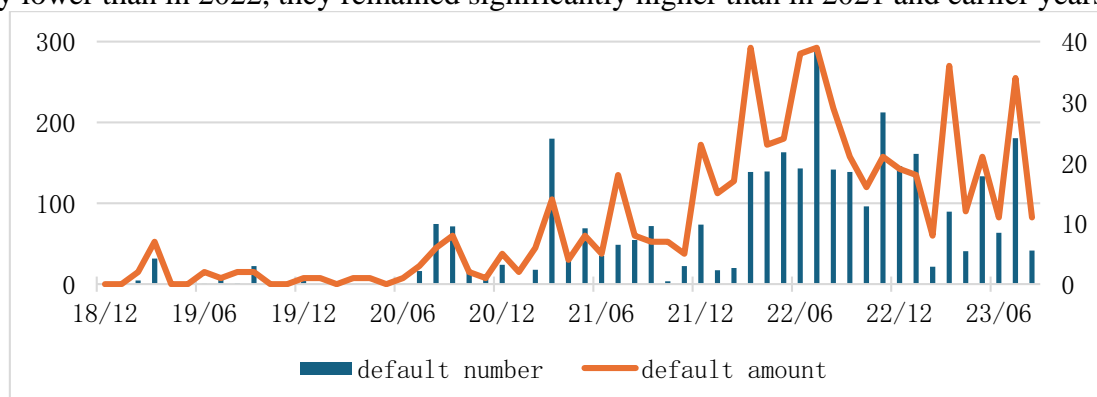


Figure 3: Number and Amount of Real Estate Developer Bond Defaults Since 2019[5]

Despite ongoing bond defaults by real estate developers, the overall risk remains relatively manageable, mainly for three reasons:

(1) Declining Balance and Proportion of Developer Bonds: Since 2020, the credit crisis in the real estate industry has made it difficult for developers to issue bonds, leading to a continuous decline in the balance and proportion of developer bonds (Figure 4). As of August 25, 2023, the balance of developer bonds accounted for only 1.17% of the total bond balance.

(2) Low Default Ratio of Developer Bonds: As of August 25, 2023, the total amount of existing defaulted bonds by developers was 235.3 billion yuan, representing 22% of all defaulted bonds and 14% of the total developer bond balance. The default ratio is relatively controllable.

(3) Institutional Investor Dominance: The main investors in credit bonds are financial institutions. According to data from the Shanghai Stock Exchange, individual investors hold only 0.3% of the bond amount. Institutional investors have stricter risk controls and higher risk tolerance. They have also anticipated potential defaults in developer bonds, making the associated risks relatively manageable.

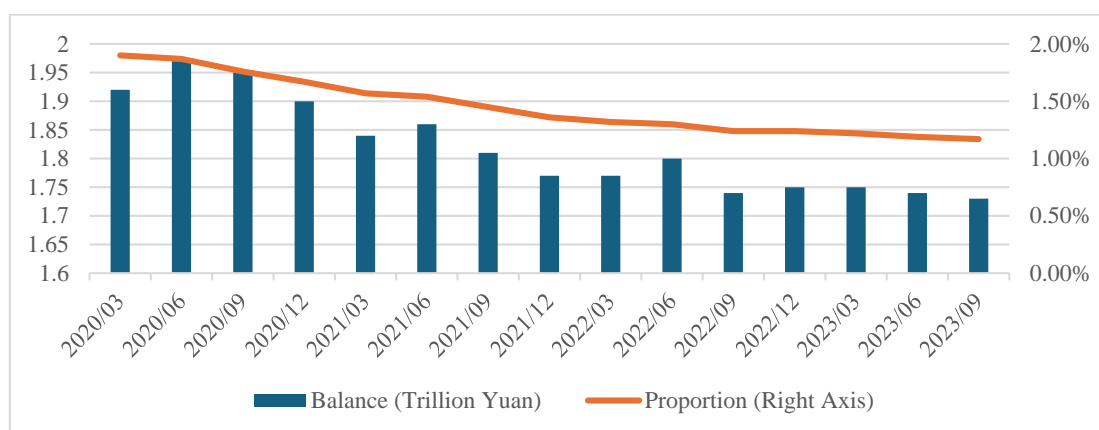


Figure 4: Continuous Decline in Developer Bond Balance and Proportion of Total Bond Balance[5]

2.3 Trusts: Only 7.4% of Trusts Are Allocated to Real Estate, with Strong Risk-Tolerance among Investors

Trusts are a major non-standard financing tool for real estate developers, offering greater flexibility and lower barriers to entry compared to bank loans and bonds, albeit at higher interest rates. As a result, trusts are often used by developers and projects that cannot obtain financing through bank loans or bonds, leading to higher risks and default rates compared to bank loans. For example, Zhongrong Trust, which is currently embroiled in a payment crisis, has frequently been exposed to defaulted developers, including Evergrande, Jiazhao Group, Sunac, Yango, THIC, Shima, Huaxia Happiness, and at least 15 other real estate companies.

Despite the debt crisis in the real estate industry putting pressure on trust products related to real estate, the risk diffusion remains controllable, mainly for two reasons:

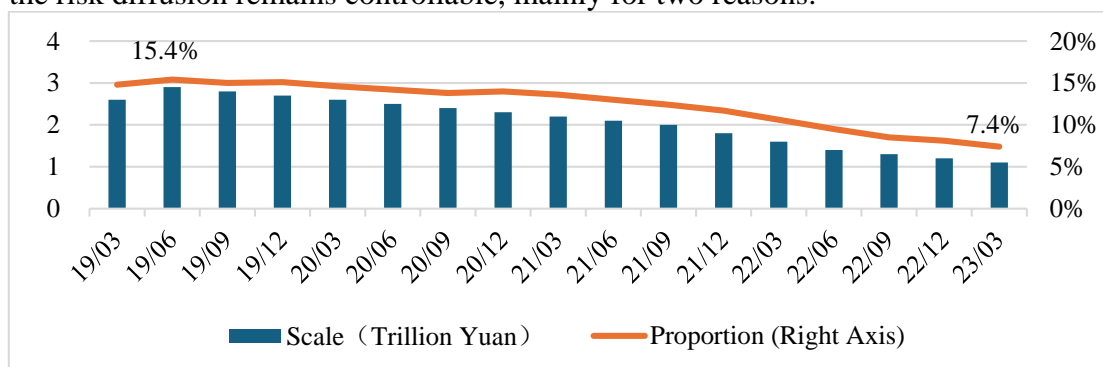


Figure 5: Scale and Proportion of Trusts Allocated to Real Estate[8]

(1) Low Proportion of Trusts Allocated to Real Estate: Since the implementation of the Asset Management New Rules in 2018, regulatory authorities have strengthened supervision over trust companies' channel businesses and worked to control their real estate exposure. The scale and proportion of trusts allocated to real estate have gradually declined (Figure 5). As of the end of March 2023, the scale of trusts allocated to real estate was 1.1 trillion yuan, accounting for 7.4% of the total trust amount[8].

(2) The high investment threshold of trusts means that investors have strong financial capabilities and risk tolerance. Compared to other financial products such as bank wealth management products, which have almost no threshold, trusts have a relatively high investment threshold. The minimum investment amount for fixed-income trust products is 300,000 yuan, while for equity-based trust products, it is 1 million yuan. Investors must also meet the qualified investor requirements, which

include having a net financial asset value of at least 3 million yuan per household, or a total financial asset value of at least 5 million yuan per household, or an average annual income of at least 400,000 yuan over the past three years. Therefore, trust investors generally have strong financial capabilities and risk tolerance, and the impact of trust product defaults on social stability is limited.

2.4 Real Estate-Related Financial Products Are Mainly Held by Banks, with Controllable Risks Assessed by the Central Bank's Stress Tests

According to Goldman Sachs, as of June 2023, 75% of Chinese real estate developers' interest-bearing liabilities were held by banks (including bank wealth management products)[9]. When combined with mortgage loans, over 90% of developers' and homebuyers' interest-bearing liabilities are held by banks. Therefore, the exposure to real estate financial risks is primarily concentrated in the banking sector.

In response to this situation, the central bank conducted a stress test on banks' exposure to real estate financial risks in the "China Financial Stability Report 2022," assessing banks' solvency under mild, moderate, and severe stress scenarios[10]. The results showed that even under the most severe stress test, banks' capital adequacy ratio remained at 13.03%, down by only 2 percentage points compared to pre-shock levels, and still above the regulatory requirement of 10.5% (minimum capital of 8% + conservation buffer of 2.5%). This indicates that although real estate financial risks are worth paying attention to, their impact on banks' overall solvency is limited. Considering that the exposure to real estate financial risks is mainly concentrated in banks, the direct impact of the real estate crisis on the financial system is expected to be limited and is not likely to trigger systemic financial risks.

3. The Continuous Spread of Real Estate Risks Has Widespread Indirect Effects on the Economy and Finance

Although the direct impact of real estate risks on the financial system is limited, the large scale and long industrial chain of the real estate industry mean that the continuous spread of these risks will have widespread indirect effects on the economy and finance.

3.1 Impact on Upstream and Downstream Industries, Dragging Down Economic Growth

The real estate development process is lengthy, and its upstream and downstream industries cover a wide range of sectors, all of which have been continuously impacted by the real estate crisis[11]. On one hand, under the pressure of cash flow constraints faced by developers, the scale of suppliers' accounts receivable has increased, and overdue commercial bills have failed to be redeemed, leading to debt crises in these companies. For example, several construction companies, including Nantong No.1 Construction and Nantong No.6 Construction, have filed for bankruptcy reorganization or liquidation. On the other hand, the lack of demand in the real estate market has led to a sharp decline in demand for other industries in the supply chain, severely impacting their operations. For example, companies such as GoldenMantis and Guangtian Group have experienced a significant drop in revenue and substantial losses.

Generally, industries that account for more than 5% of the economy can be considered pillar industries. The proportion of real estate industry value-added in China's GDP has increased from 4.1% after the housing reform in 1998 to a peak of 7.1% in 2020 (Figure 6). When combined with related industries indirectly driven by real estate, the total contribution is about 17% of GDP. Real estate development investment accounts for 27.3% of fixed asset investment, and the broad real

estate industry chain drives related investments exceeding 50%. Since 2021, with the downturn in the real estate industry, its share of GDP and investment has begun to decline, turning negative in terms of contributions to GDP and investment growth. The ongoing real estate crisis is expected to continue to drag down GDP and investment growth, slow economic growth, and indirectly affect the performance of financial institutions and the stability of the financial system[5].

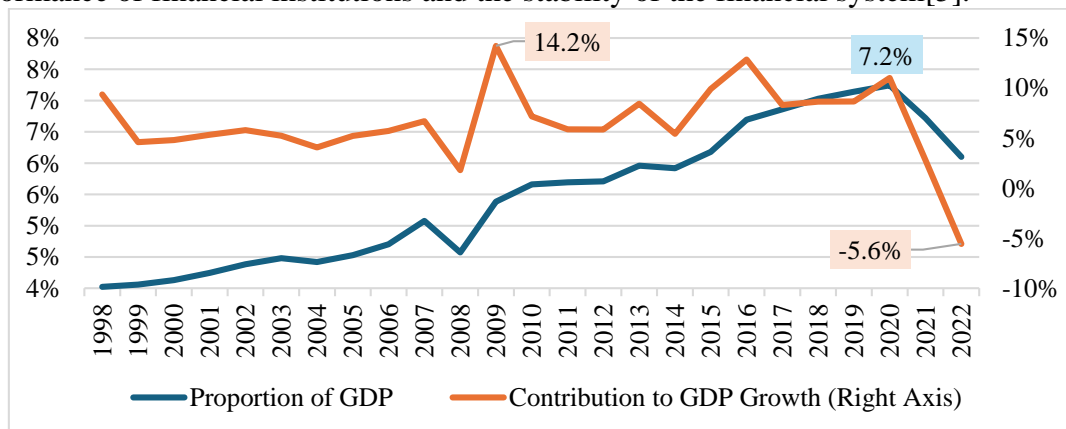


Figure 6: The Role of Real Estate Industry Value-Added in GDP[5]

3.2 Increasing Fiscal Pressure and Debt Risks for Local Governments

Local governments are highly dependent on land finance, which mainly includes income from the transfer of land use rights and revenues from five unique real estate-related taxes. The total land finance income has been on an upward trend since 2012 (Figure 7), reaching a peak in 2021, with land use rights income amounting to 8.7 trillion yuan. When combined with the five unique tax revenues, the total land finance income reached 10.8 trillion yuan, accounting for 52.6% of the total local fiscal revenue that year. In 2022, as the real estate market cooled down, land finance income plummeted by 2.18 trillion yuan, dragging down local fiscal revenue by 2.24 trillion yuan[5]. The real estate industry remains mired in crisis, and the downward trend in land transfer income is expected to continue (a year-on-year decrease of 19% from January to July 2023), which will further drag down local fiscal revenue, exacerbate the fiscal revenue and expenditure contradictions, and constrain the space for fiscal policy to take effect. This not only hampers economic growth but also limits the government's ability to conduct countercyclical regulation[12].

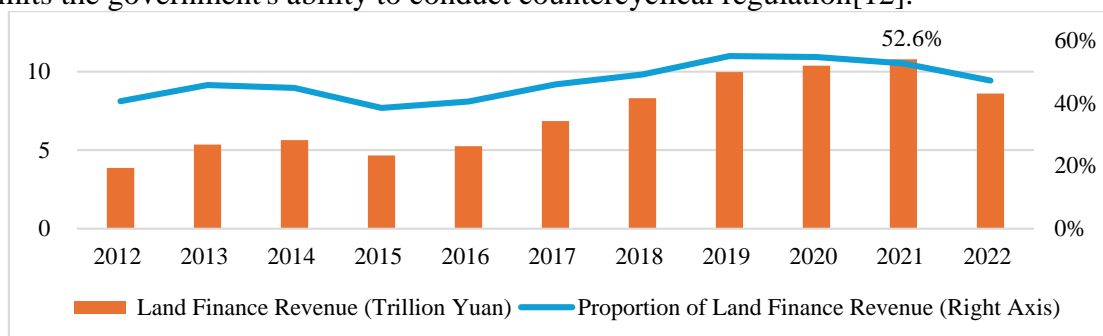


Figure 7: Proportion of Land Finance Income in Local Fiscal Revenue[5]

In recent years, the scale of local government debt has increased rapidly. As of August 2023, the balance of local government bonds reached 38.3 trillion yuan, 33 times that of a decade ago. The balance of urban investment bonds was 13.5 trillion yuan, 4.5 times that of a decade ago. The total debt scale reached 51.8 trillion yuan (Figure 8). If non-standard debts of urban investment

companies, such as bank loans, trusts, and financial leasing, are included, the actual scale of local debt is even higher. Land finance revenue is the main source for local governments to repay debts. In recent years, with a significant decline in land finance revenue, local debt risk events have occurred frequently. Some cities need to raise funds from various sources to repay maturing urban investment bonds. Since 2023, there have been 116 defaults in non-standard debts of urban investment companies, an increase of 82 cases compared to 2022, setting a historical record. Risk events such as the 15.6 billion yuan bank loan extension for twenty years by Zunyi Daoqiao at the end of 2022 and the technical default of Lanzhou urban investment bonds have attracted widespread social attention[5]. Currently, affected by the continued sluggishness of the real estate industry, land finance revenue is expected to continue to shrink, local debt repayment pressure will increase, and related debt risks will continue to accumulate.

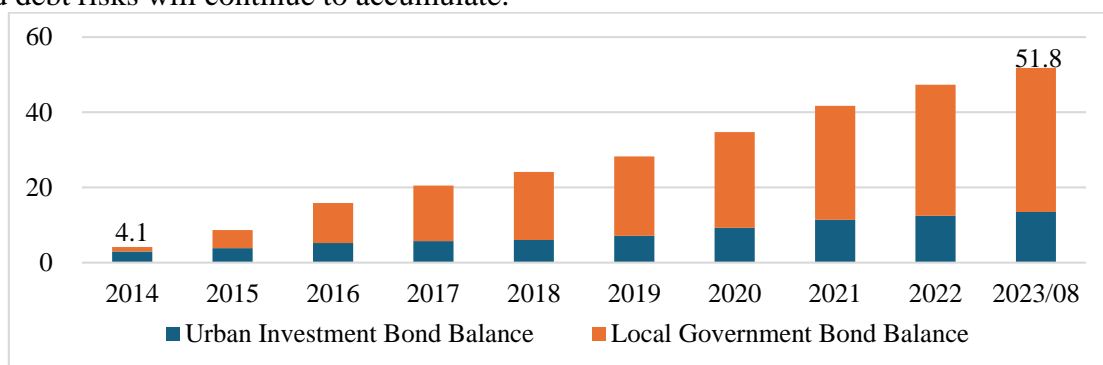


Figure 8: Scale of Local Government Debt (Trillion Yuan)[5]

3.3 Impact on Credit Expansion and Market Confidence, Detrimental to Economic Growth

Before the downturn in this real estate cycle, the real estate sector was an important vehicle for credit expansion. Between 2010 and 2020, the average proportion of newly added real estate loans in total new loans was 30%, reaching 45% in 2016 (Figure 9). However, with the real estate market entering a medium-to-long-term downturn, the supporting role of real estate in credit expansion has declined rapidly in recent years. In the first half of 2023, newly added real estate loans amounted to only 15.49 billion yuan, accounting for just 1% of new loans. Moreover, a significant amount of non-real estate industry debt is collateralized by real estate. The real estate crisis has led to a decline in collateral value and an increase in non-performing loan risks, making it difficult to extend new credit and suppressing credit expansion. Meanwhile, the accumulation of funds within the banking system has prevented "easy money" policies from effectively translating into "easy credit," thereby weakening the effectiveness of monetary policy[4].

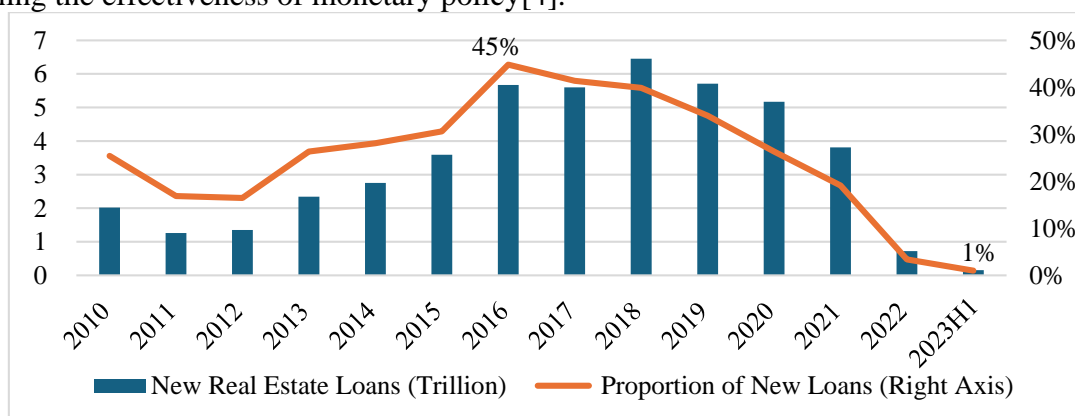


Figure 9: Newly Added Real Estate Loans and Their Proportion in Total New Loans[5]

The real estate industry is closely related to the financial system, fiscal revenue, and macroeconomic policies, and it has a significant impact on the capital market and consumer confidence. Since 2002, the correlation between the CSI 300 Index and the WIND Real Estate Industry Index has been as high as 88%. From January 4, 2021, to August 25, 2023, the WIND Real Estate Index declined by 23.2%, dragging down the CSI 300 Index by 29.6%. Additionally, the downturn in the real estate industry has also affected employment. Between 2020 and 2022, the total number of employees in A-share listed real estate companies decreased by 190,000. The impact on employment when considering related affected enterprises is even more profound. The real estate credit crisis has exacerbated economic and financial market adjustments, affecting the capital market and consumer confidence, and is detrimental to economic growth.

4. Conclusion

The continuous spread of real estate risks in China has had a profound impact on the financial system, economy, and fiscal stability. While current public data suggests that the direct impact of the real estate crisis on financial institutions remains manageable—given that banks, as the primary holders of real estate-related financial products, have passed the central bank’s stress tests—the indirect effects of the crisis are far-reaching and could pose long-term challenges to economic growth and financial stability.

Firstly, the real estate sector's extensive industrial chain means that the crisis has negatively impacted both upstream and downstream industries, leading to a slowdown in economic growth. The contraction in real estate investment and construction activity has dragged down GDP, investment, and employment, exacerbating the broader economic slowdown.

Secondly, the heavy reliance of local governments on land finance has resulted in significant fiscal pressure. The decline in land transfer revenues has constrained local governments’ fiscal capacity, increasing debt repayment risks and leading to the accumulation of financial vulnerabilities in the local government debt market. This has further limited the effectiveness of fiscal policies in stimulating economic growth.

Thirdly, the downturn in the real estate market has weakened credit expansion, reducing the banking sector’s ability to provide new loans, given the declining value of real estate collateral and rising non-performing loan (NPL) risks. The diminished role of real estate in credit expansion has also reduced the effectiveness of monetary policy, as liquidity injections have not translated into strong credit growth.

Moreover, the real estate credit crisis has significantly impacted market confidence and financial markets. The real estate sector's decline has led to substantial losses in the capital markets, affecting investor sentiment and contributing to broader market volatility. Additionally, the downturn in real estate-related employment has further weakened consumer confidence, leading to lower consumption and investment activity.

In summary, while the real estate crisis is unlikely to trigger systemic financial risks in the short term, its prolonged impact on economic growth, fiscal stability, and credit expansion cannot be ignored. Addressing these risks requires a comprehensive policy response, including measures to stabilize the real estate market, strengthen financial risk management, and support local government fiscal sustainability. Only through coordinated efforts between monetary, fiscal, and regulatory policies can China effectively mitigate the long-term risks posed by the real estate downturn and ensure sustainable economic development.

References

[1] H. Zhu, “Building the Bubble: China’s Vulnerability due to Rapid Economic Growth Fueled by Speculative Real

- Estate,” Nov. 14, 2024, Social Science Research Network, Rochester, NY: 5042553. doi: 10.2139/ssrn.5042553.
- [2] “Insight: Buttressing Greenland - a bailout in China’s distressed property sector | Reuters.” Accessed: Feb. 06, 2025. [Online]. Available: <https://www.reuters.com/world/china/buttressing-greenland-bailout-chinas-distressed-property-sector-2022-03-15/>
- [3] Y. Hu, H. Xia, and Q. Zhang, “The Impact of Financial Crisis on Real Estate Enterprises: An Empirical Analysis,” in *Proceedings of the 2nd International Conference on Business and Policy Studies*, C. T. Dang, J. Cifuentes-Faura, and X. Li, Eds., in *Applied Economics and Policy Studies*, Singapore: Springer Nature Singapore, 2023, pp. 1298–1305. doi: 10.1007/978-981-99-6441-3_117.
- [4] E. I. Altman, X. Hu, and J. Yu, “Has the Evergrande debt crisis rattled Chinese capital markets? A series of event studies and their implications,” *Finance Research Letters*, vol. 50, p. 103247, Dec. 2022, doi: 10.1016/j.frl.2022.103247.
- [5] Wind Information, “China Economic Database.” 2023. [Online]. Available: <https://www.wind.com.cn/>
- [6] the People’s Bank of China, “Financial Statistical Reports.” 2023. [Online]. Available: <http://www.pbc.gov.cn/english/130437/index.html>
- [7] S. Gurov and T. Teplova, “Media sentiment, news and liquidity of Chinese property developer stocks amidst the shadow of a mortgage crisis in China,” *International Journal of Emerging Markets*, vol. ahead-of-print, no. ahead-of-print, Sep. 2023, doi: 10.1108/IJOEM-08-2022-1232.
- [8] “China Trustee Statistical Reports.” China Trustee Association, 2023. [Online]. Available: <http://www.txh.net/txh/statistics/index.htm>
- [9] “China’s property crisis is a US\$261 billion pain for banks, investors: Goldman,” *South China Morning Post*. Accessed: Feb. 06, 2025. [Online]. Available: <https://www.scmp.com/business/banking-finance/article/3232046/chinas-property-crisis-us261-billion-credit-pain-lenders-trust-firms-and-insurers-goldman-says>
- [10] “China Financial Stability Report 2022.” the People’s Bank of China. [Online]. Available: <http://www.pbc.gov.cn/en/3688235/3688414/3710021/4601747/4888329/2023051915355796296.pdf>
- [11] Y. Zheng, “A Study on the Healthy Development of China’s Real Estate Industry from a Comparative Perspective between China and Japan,” *FIN*, vol. 13, no. 05, pp. 1166–1176, 2023, doi: 10.12677/FIN.2023.135124.
- [12] Y. Li, “Real estate recession and local financial risk: a perspective on the China local government debt crisis,” Dec. 2023, Accessed: Feb. 06, 2025. [Online]. Available: <https://www.politesi.polimi.it/handle/10589/214354>