The “three red lines” Policy and Debt Crisis of Real Estate Companies in China

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Abstract. Since 2020, the biggest risk in China's financial system has come from the real estate industry. This article explores how the "three red lines" policy on real estate financing affects the debt repayment capacity and debt risks of real estate companies, leading to systemic shocks in the economic system. First, through literature review, it summarizes the high-turnover business model of real estate companies, which is the background of the "three red lines" policy. Secondly, through data from banks and enterprises’ balance sheet, it finds that the "three red lines" policy has indeed tightened financing for real estate companies, increasing the non-performing loan rate and the amount of defaults in the real estate sector. The debt risk in real estate transmits to the real economy through financial intermediaries, while also negatively affecting consumption and investment by enterprises and residents through the wealth effect. The analysis indicates that too rapid a tightening of financing restrictions may impact normal business operations and lead to a debt crisis.

Keywords: “the three red lines”; debt crisis; systematic risk

1 Introduction and Literature Review

1.1 Introduction to the Operating Model of Chinese Real Estate Companies

A key characteristic of the development of China's real estate industry is high turnover. The essence of "high turnover" for real estate companies is achieving rapid

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capital circulation (Yan, 2014). This shortens the overall development time of projects, reducing the amount and duration of capital occupation. By leveraging limited capital, companies can undertake more projects, thus maximizing scale benefits and enabling rapid capital turnover.

For real estate companies, the value derived from "high turnover" includes both explicit and implicit aspects. The explicit value mainly involves reducing the time and cost associated with capital occupation, while the implicit value helps avoid various development risks in the real estate market, such as competition among similar companies, internal operational risks, uncontrollable natural risks, and social policy risks (Song, 2020).

The high turnover operating model for residential projects aims to minimize the investment of self-owned funds in individual projects, compress the capital occupation time during construction, and recover invested funds promptly. After generating operational profits, these funds can be reinvested into new project development, forming a cycle of turnover management. This model is characterized by three main aspects:

Reducing Initial Project Funding. By leveraging financial principles, real estate companies can minimize their own capital investment and utilize appropriate debt financing to start large projects with relatively small amounts of capital. As long as the return on total assets exceeds the financing interest rate, leveraging debt can still yield effective returns.

Compressing Capital Utilization Cycles. This involves a strategy of delayed outflow and early recovery of funds. Companies can use an ERP resource management system to effectively coordinate various business departments, such as production, procurement, human resources, sales, and finance, ensuring that capital is used efficiently while maintaining operational effectiveness.

Continued Fund Circulation. After recovering funds, companies can continue to reinvest them, striving to maximize turnover rates within a given time period.

Under this high-turnover operating model, the use of high financial leverage introduces significant risks, prompting the government to implement regulatory policies for the real estate industry.

1.2 Background of the Three Red Lines Policy

By 2020, the asset-liability ratio of the real estate industry was approximately 73.6%, significantly exceeding the reasonable range of 40% to 60%. Continuous interest rate cuts in China allowed some companies to exploit preferential policies, channeling operational loans into the real estate sector through various non-compliant means. This unmonitored influx of funds heightened risks. To prevent financing crises among real estate companies, reduce financial risks, and effectively implement a prudent management system for real estate finance, the People's Bank of China, along with the Ministry of Housing and Urban-Rural Development and other relevant departments, developed regulations for monitoring and managing the financing of key real estate companies after extensive consultations (Song and Bao, 2021).

In August 2020, the central bank and the China Banking and Insurance Regulatory Commission introduced the "Three Red Lines" policy for real estate companies, which officially took effect on January 1, 2021. The policy specified safety standards for three debt indicators of real estate companies: (1) the asset-liability ratio (excluding advance payments) must not exceed 70%; (2) the net debt ratio must not exceed 100%; and (3) the cash-to-short-term debt ratio must be greater than 1. Based on real estate companies' compliance with these three indicators, they are classified into red, orange, and green categories, with corresponding financing restrictions imposed on companies in different categories.

1.3 Impact of the “Three Red Lines” on Real Estate Companies' Debt Repayment Capacity

1.3.1. Tightening Bank Credit, Cutting Off High-Leverage Companies' Financing.

The real estate industry, being capital-intensive, has traditionally relied on external financing to meet its funding needs. The "three red lines" policy sets clear limits on new financing for different types of real estate companies. Even green-category companies that have not violated the lines are restricted to a maximum annual debt growth rate of 15%. Consequently, financing for all real estate companies will be constrained to some extent due to these caps.

In the context of increasingly stringent regulatory policies for the real estate market, the introduction of the "Three Red Lines" policy directly classifies companies based on their debt levels and stipulates future financing limits. This policy obstructs the high-debt, high-leverage business model of real estate firms, severing their financing capabilities and exposing them to liquidity difficulties and debt default risks. The impact on financing primarily manifests as a limitation on the scale of debt financing, leading to an overall decline in financing volumes.

Initially, as housing sales decreased, real estate companies, facing tightening cash flow, were compelled to seek more financing. However, financial institutions adopted a cautious stance towards financing reviews, making it more difficult for these companies to secure approvals and reducing financing amounts. Under the strict debt level requirements and financing restrictions of the "three red lines," the accumulated high debt from high leverage will inevitably be pressured due to tighter financing. Companies must quickly reduce their current debt to below acceptable levels, while future financing sizes will also be restricted based on their designated category. Thus, real estate firms face the dual challenge of needing sufficient cash flow to repay debts exceeding acceptable levels while being unable to raise new funds through traditional channels. This creates a situation where they must contend with high financing costs for debt repayment, making it increasingly difficult to obtain new financing, which could lead to liquidity crises and worsen their operational conditions, potentially increasing the risk of a funding chain rupture and debt defaults (Liu, 2023).

1.3.2. Downturn in Market Cycles: High-Turnover Companies Facing Sales Challenges.

With the introduction of the "three red lines" policy, the real estate market has gradually entered a downturn. Increased regulation, along with purchasing and pricing restrictions, slowing land appreciation, and squeezed profit margins, has weakened consumer purchasing intent and lowered overall sentiment, significantly impacting sales for real estate companies. On one hand, investors are cautious due to the deteriorating market environment, opting to wait rather than invest in real estate, and shifting their focus to other sectors. On the other hand, factors such as the COVID-19 pandemic and a slowdown in the land market have led to delays in project construction and delivery, further heightening buyers' hesitancy and reducing their willingness to purchase.

1.3.3. Impact of Policy Regulation: Short-Term Decline in Profitability for Real Estate Companies.

The implementation of the "Three Red Lines" policy has imposed strict restrictions on financing within the real estate industry. Prior to this policy, the leverage ratio of real estate companies directly influenced their growth rate. However, the introduction of the "three red lines" has made previous operational models unsustainable. Gong (2022) argues that the financing constraints have led to a decrease in the industry's Return on Equity (ROE) and Return on Assets (ROA), ultimately reducing corporate profits. In the short term, while the reduction of interest-bearing debts can decrease financial expenses, in a context of declining investment returns across the industry, reducing leverage helps mitigate corporate risk and promotes long-term healthy development.

2 Data Analysis

2.1 Financing Restrictions in the Real Estate Industry

Taking the top 50 real estate companies by sales amount in 2019 as an example, we can investigate the financial compliance of these companies. After excluding companies with incomplete data or those that are not publicly listed, we analyze the compliance status of 45 companies (hereinafter referred to as "sample companies") based on their mid-2020 report data. The findings reveal that only 5 companies, primarily state-owned enterprises, met all three indicators. Additionally, 20 companies met all three criteria, 12 companies met one criterion, and 8 companies did not meet any of the indicators.

Following the formal implementation of the policy in 2021, the total bank credit limit for A-share listed real estate companies significantly declined as a percentage of the total loan balance in society. Figure 1 illustrates the reduced ability of listed real estate companies to secure loans from banks.

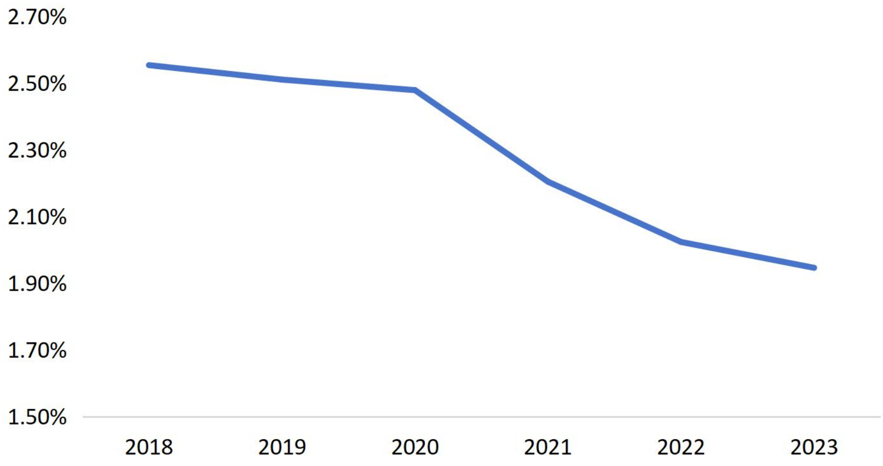

Fig. 1. Proportion of Credit Limits for Listed Real Estate Companies to Total Loans

2.2 Real Estate Companies' Default on Bond

Alongside the significant reduction in loans obtained by the real estate industry, there has been a marked increase in the amount of bond defaults among real estate companies. Defaults have occurred across private enterprises, state-owned enterprises, and joint ventures, with the majority concentrated in private companies. Figure 2 illustrates the bond default amounts of listed real estate companies and their proportion within the overall listed companies. Notably, after 2020, the default bonds from real estate companies rose rapidly, and their share of total defaults increased sharply. By 2023, the real estate sector contributed to 80% of the bond default amounts among Chinese listed companies, highlighting the significant impact of the real estate debt crisis on China's bond market.

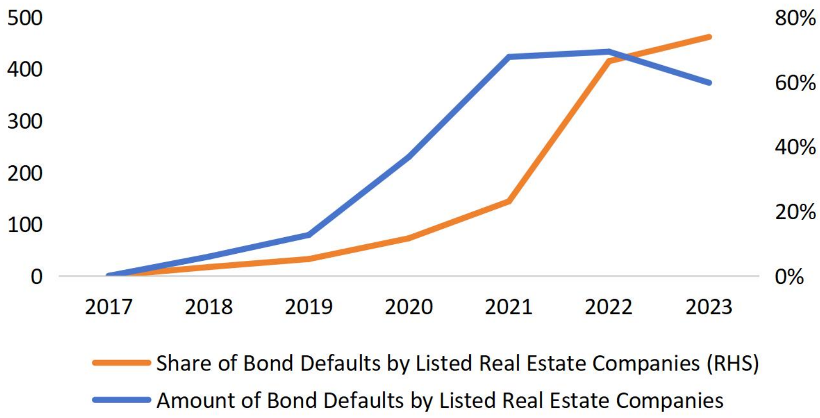

Fig. 2. Amount of Bond Defaults by Listed Real Estate Companies

Additionally, the credit ratings assigned by rating agencies directly reflect the credit risks faced by real estate companies. I collected credit rating records for Chinese enterprises from 2018 to 2023 and identified those with a negative credit outlook, calculating the proportion of real estate companies among them. As shown in Figure 3, prior to 2020, the proportion of real estate companies among enterprises with negative credit ratings remained around 5%. However, after 2021, this percentage surged, reaching 21% by 2022 for companies with negative credit ratings in the real estate sector.

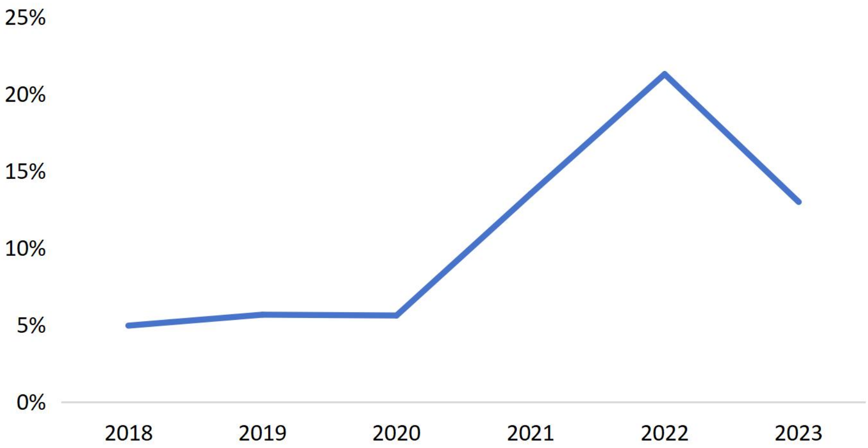

Fig. 3. Proportion of Real Estate Industry Among Companies with Negative Credit Rating Outlook

2.3 Default Risk of Real Estate Companies on Banks

Loans related to real estate account for a substantial portion of bank lending, absorbing significant financial resources from society. Statistics indicate that 39% of bank deposits are lent to real estate, while 51% of trust funds are allocated to the sector. Over the past decade, the balance of commercial real estate loans has shown a consistent upward trend, reaching 44.4 trillion yuan in 2019, which accounted for 29% of total loans—its highest value in nearly ten years. Although this proportion has declined in the last two years, by the end of the first quarter of this year, the balance of real estate loans was 53.52 trillion yuan, making up 21.7% of total loans.

The contraction and downturn of the real estate market not only directly lead to a reduction in financial credit volume and declining economic benefits but also result in a significant increase in asset loan defaults (Hu, 2024). However, since the financing restrictions mainly target real estate development companies, this article primarily focuses on the bank loans and non-performing loan rates of these developers. Real estate development loans account for 5% to 10% of total loans in China's banking sector, and as shown in Figure 4, the non-performing loan rate for this segment has risen significantly since 2020.

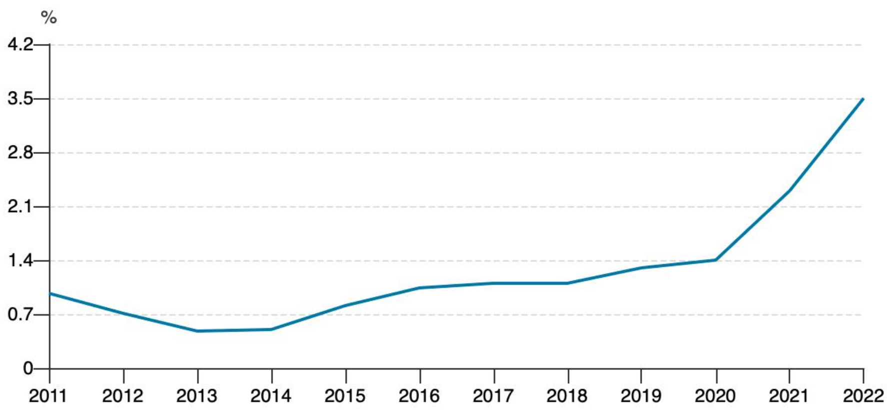

Fig. 4. Non-Performing Loan Rate for Real Estate in Banks

2.4 Influence of Real Estate Debt Crisis

2.4.1. Risks to the Financial System.

The real estate debt crisis directly increases the amount of bad debt for financial institutions, heightening systemic risk. Financial institutions are interconnected with various sectors of the economy, as households, businesses, and governments rely on them to obtain funds for consumption and investment. When the asset-liability situation of these institutions deteriorates, their ability to lend to the real economy diminishes. According to the Basel Accord's requirements for core capital adequacy ratios, the bad debts incurred from real estate will directly reduce a bank's core capital, thereby constraining its capacity to extend loans to other sectors of the economy.

2.4.2. Impact on Local Government Revenue.

In recent years, the sluggishness of the housing market has continued to impact the land market. Coupled with a lack of consumer confidence in home purchases, cash flow issues among real estate companies, and low willingness among private enterprises to acquire land, this situation has directly affected local governments' land transfer revenues. As a result, local fiscal revenues have declined, leading to increased debt risks for local governments. Since 2022, land transfer revenues have decreased for two consecutive years, with national land transfer income in 2023 amounting to 5.8 trillion yuan, a 13.2% decline compared to 2022. The reduction in local fiscal revenues has resulted in elevated local government debt levels, causing financial strain and further compressing government spending and fiscal investments, which in turn negatively impacts local economic growth.

2.4.3. Impact on Enterprises and Households Through Direct and Indirect Effect.

The real estate sector is a crucial pillar of the national economy. From 2000 to 2020, the value added by the real estate industry increased from 4.1% to 7.2% of GDP, and the employment and income generated by this sector have a direct impact on consumption. First, falling housing prices can suppress consumer spending through the wealth effect. Since approximately 70% of Chinese household assets are tied up in real estate, a decline in property prices leads to a reduction in household wealth, diminishing consumer confidence and impacting overall economic demand.

Second, the downturn in the entire real estate industry chain directly contributes to a contraction in the real economy. Beyond driving demand in housing-related manufacturing sectors such as building materials, furniture, and wholesale, real estate also has a significant impact on the tertiary sector, including finance and business services. The real estate debt crisis not only results in a decline in investment within the sector itself but also constrains investment and production in the upstream and downstream industries. Lastly, unemployment and reduced income in the real estate sector lead to decreased household consumption. According to data from the Fourth Economic Census, employment in the real estate and construction industries accounted for approximately 15% of non-agricultural employment in 2018. In the context of declining real estate investment and a significant number of corporate bankruptcies, the employment and wage levels of this workforce are likely to be severely impacted.

3 Conclusions

In August 2020, China introduced financing restrictions for the real estate sector, known as the "three red lines." This policy effectively curbed the rapid expansion of real estate companies and reduced the share of real estate-related credit in the financial sector. However, it also led to operational difficulties for real estate companies, resulting in widespread financing defaults. The debt defaults in the real estate sector not only further diminished the financing capabilities of these companies but also imposed risks on China’s financial system, leading to systemic shocks to the economy. This article analyzes the situation and risks arising from the real estate debt crisis following the implementation of the "Three Red Lines" through data and literature review.

Due to the long-standing high-debt, high-turnover operating model of real estate companies in China, the sudden tightening of financial policies disrupted this business model, leading to significant bad debts among struggling firms. Data shows that the total bank credit limit for A-share listed real estate companies decreased from 2.5% of total loans before the policy to 1.8% afterward. Simultaneously, the non-performing loan rate for bank loans related to real estate rose from 1.4% before the policy to 3.5% afterward. By 2023, the real estate sector accounted for 80% of the bond defaults among Chinese listed companies, highlighting the sector's significant impact on the bond market. In 2022, 21% of companies with negative credit ratings were in real estate. Furthermore, the real estate debt crisis has transmitted risks throughout the financial system to other economic sectors, affecting government fiscal revenues and undermining the consumption and investment confidence of households and businesses, thereby posing risks and pressures on China's economic development.

The intent behind the financing restrictions on real estate was to prevent excessive allocation of financial resources to the sector, thereby freeing up funds for other parts of the economy. However, the rapid implementation of these policies has led to unforeseen financial risks. Therefore, it is crucial to consider the impact of such policies on real enterprises and whether they may cause operational difficulties. For businesses, it is essential to avoid a high-turnover operating model, particularly during periods of economic downturn and tight financing. Ensuring stable cash flow is more important than pursuing expansion. For the financial sector, managing risk is a key issue for sustainable development. Risks associated with individual enterprises and industries must be kept under control to prevent sudden risks from disrupting the normal operations of financial institutions, ultimately helping to avert systemic financial crises.

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