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CF40 Policy Brief

On the "Shadow Banking" Nature of Real Estate Enterprises

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Abstract: China's real estate market has undergone significant changes since the second half of 2021. Sales of commercial properties and new construction have fallen sharply, and many real estate companies, including headline companies, have experienced a series of collapses and debt defaults. To adapt to the new supply and demand dynamics in the real estate market, policies have been significantly adjusted and optimized.

Disposing of defaulted real estate enterprises is an important and necessary step in stabilizing the real estate market. If the financial market and home buyers are concerned about the risks of real estate enterprises, these enterprises will face difficulties in financing and sales, making it even harder for the real estate market to recover from the current downturn.

A clearer understanding of the attributes of real estate enterprises is the premise of proper disposal of real estate enterprises. This article argues that the financial

attributes of real estate enterprises are much greater than the attributes of real estate development, and on this basis, it discusses how to look at the current plight of real estate enterprises and the implications for the subsequent disposal of ideas.

Understanding the attributes of real estate enterprises is crucial for their proper disposal. This article argues that the financial attributes of real estate enterprises are more significant than the attributes of real estate development. Based on this premise, we discuss how to view the current plight of real estate enterprises and the implications for subsequent disposal ideas.

I. "SPECIAL" CHINESE REAL ESTATE COMPANIES

First of all, China's real estate companies don't look much like those in other countries. We select the top-ranked developers in three economies - the US, Europe, and Japan - for comparison.

Combining size and data availability, the top 10 overseas real estate companies are identified as PULTE (US), D R HORTON (US), LENNAR (US), BARRATT DEVELOPMENTS (Europe), TAYLOR WIMPEY (Europe), BERKELEY GROUP HOLDINGS PLC (Europe), Mitsui Fudosan (Japan), Mitsubishi Estate (Japan), Sumitomo Realty & Development (Japan), Daiwa House Industry (Japan).

The top Chinese developers we select are Vanke, Country Garden, Poly Developments, and Longfor Group, which are ranked high in China and generally considered to be well run real estate companies before the real estate market adjustment.

To mitigate the impact of China's real estate market adjustment on 2022 financial statements and ensure data comparability, we are using 2021 financial data for reference.

As shown in Figure 1, the average gearing ratios of the sample real estate firms in the U.S., Europe, Japan, and China in 2021 are 39%, 34%, 67%, and 79%, respectively. The gearing ratios of the Chinese counterparts are twice as high as those of the U.S. and European samples, and the Japanese developers also have significantly higher gearing ratios than those of the U.S. and European samples, but again, lower than those of China.

The results of the comparison of ROA are exactly the opposite of gearing ratios, as shown in Figure 2. The U.S. real estate sample firms have the highest average ROA of 15%, followed by Europe at 8%. In contrast, the average ROA of the Japanese sample is only 3%, while China has the lowest average at 2%.

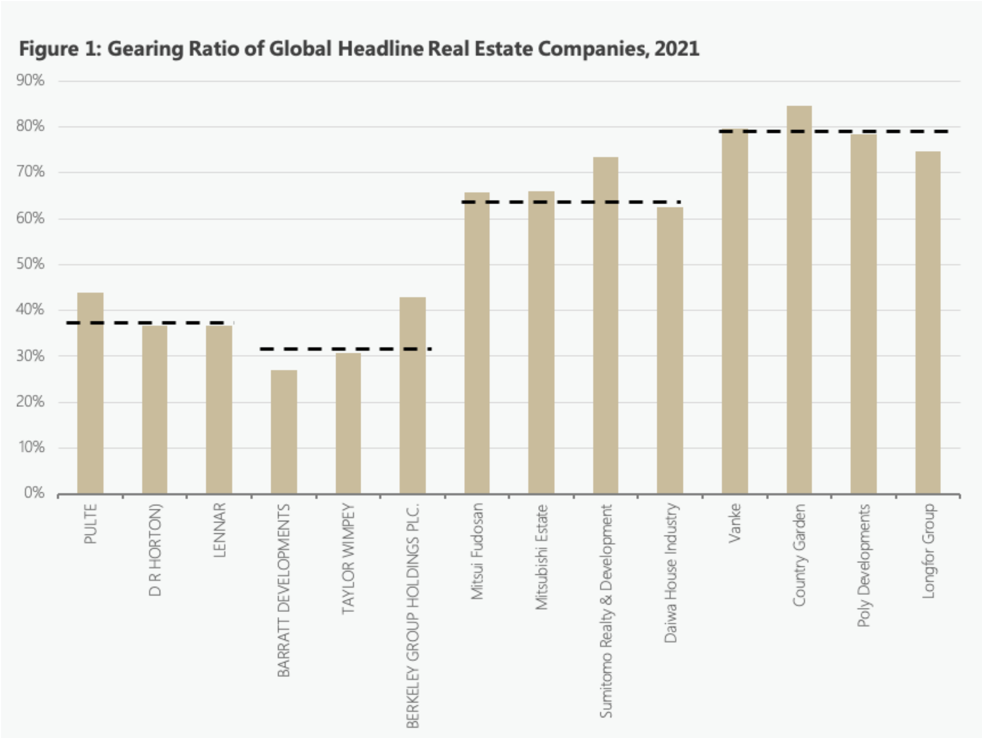


Figure 1: Gearing Ratio of Global Headline Real Estate Companies, 2021
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
PULTE
D R HORTON)
LENNAR
BARRATT DEVELOPMENTS
TAYLOR WIMPEY
BERKELEY GROUP HOLDINGS PLC.
Mitsui Fudosan
Mitsubishi Estate
Sumitomo Realty & Development
Daiwa House Industry
Vanke
Country Garden
Poly Developments
Longfor Group

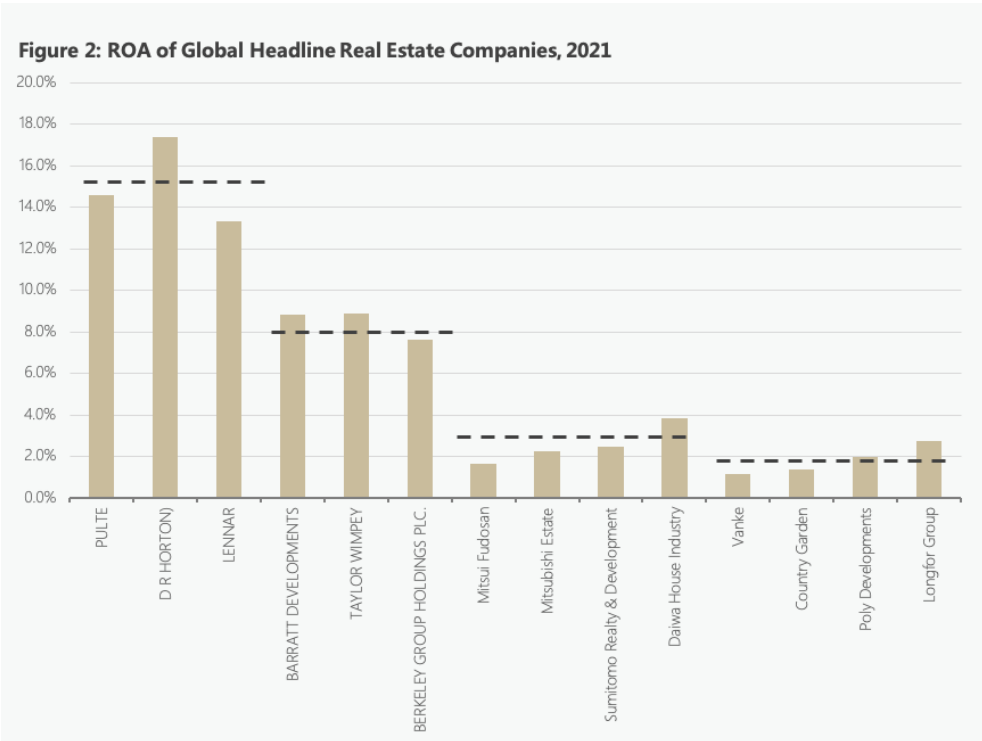


Figure 2: ROA of Global Headline Real Estate Companies, 2021
20.0%
18.0%
16.0%
14.0%
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
PULTE
D R HORTON)
LENNAR
BARRATT DEVELOPMENTS
TAYLOR WIMPEY
BERKELEY GROUP HOLDINGS PLC.
Mitsui Fudosan
Mitsubishi Estate
Sumitomo Realty & Development
Daiwa House Industry
Vanke
Country Garden
Poly Developments
Longfor Group

Source: Wind.

Chinese developers typically display typical traits of high leverage and low returns. It's worth noting that, in addition to on-balance sheet liabilities, Chinese developers often carry substantial off-balance sheet liabilities. Consequently, the data provided may underestimate leverage and overestimate returns. Nevertheless, the distinctions between Chinese real estate companies and their counterparts in other countries remain evident.

Second, domestically, China's real estate companies are also very different from other non-financial industries in China.

We calculate the median gearing ratio and ROA of listed companies in 2021 according to Wind's industry classification standard. As shown in Figure 3, the median gearing ratio of real estate firms is 68.5%, which is significantly higher than that of other non-financial industries.

For instance, the utility industry, closely linked to investment, has a median gearing ratio of 58.2%, 10.3% lower than the real estate industry. Similarly, the asset-heavy energy industry has a median gearing ratio of 51.6%, 16.9% less than real estate.

In terms of ROA, real estate companies have a low median ROA ranking of 1.8%. The retail industry, often considered to have a low gross profit margin, has a slightly higher median ROA of 1.9%. Even in industries with public welfare attributes like utilities, the median ROA is 2.6%, significantly surpassing that of the real estate industry.

Finally, China's real estate companies look somewhat similar to the financial sector instead.

Figure 3 illustrates that real estate's gearing ratio is second only to banks, insurance, and other financial sectors. The top 20 real estate firms exhibit leverage ratios comparable to financial institutions, averaging a substantial 82.3% gearing ratio.

Figure 4 further indicates that real estate's ROA is only slightly higher than that of banks, insurance, and other financial institutions, significantly trailing behind other non-financial industries.

Figure 3: Median Leverage Ratio, 2021

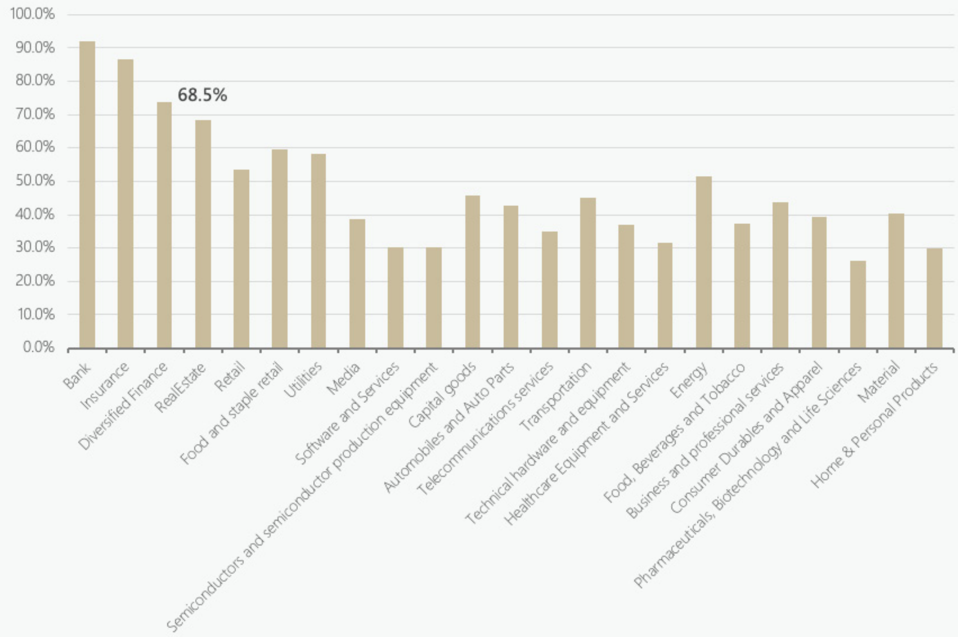
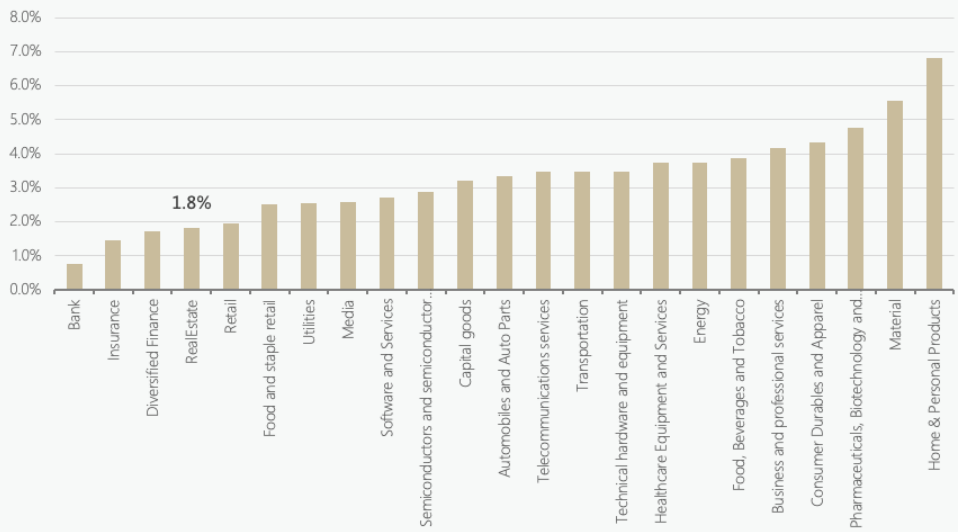


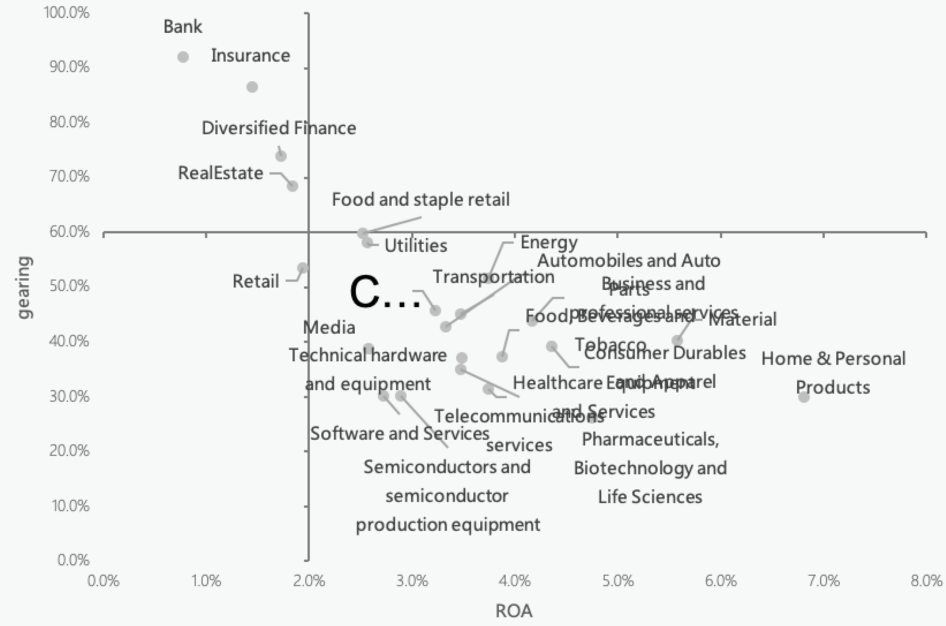
Figure 4: Median ROA， 2021



Source: Wind.

A scatter plot in Figure 5 for the gearing ratio and ROA of each industry in 2021 reveals two distinct groups among listed companies. The first group, Finance + Real Estate, is characterized by a gearing ratio exceeding 60% and an ROA below 2%. The second group, All Other Industries, features a gearing ratio below 60% and an ROA exceeding 2%.

Figure 5: Distribution of Gearing Ratio and ROA by Industry, 2021



In conclusion, China's real estate companies exhibit distinct characteristics in terms of gearing and ROA performance. These traits set them apart not only from real estate firms in other countries but also differentiate them from non-financial sectors, bearing a closer resemblance to the financial sector. This is not a coincidence.

II. CHINA'S REAL ESTATE COMPANIES ARE MORE LIKE "SHADOW BANKS".

Given the observed characteristics of the real estate industry, we propose the argument that Chinese developers can be likened to "shadow banks" engaged in real estate development. This assertion is based on the striking similarities between the business model and asset-liability structure of China's real estate enterprises and those of shadow banks. In essence, conceptualizing a real estate company as a shadow bank provides a more comprehensible framework for understanding the operational dynamics of real estate firms and their balance sheets.

CBIRC's 2020 working papaer on China's shadow banking gives four characteristics of "shadow banking", which are: (1) non-bank financial institutions are the main carriers; (2) functionally have the role of financial asset risk factor conversion, i.e., shadow banking should be the main body with the function of credit, liquidity, and maturity conversion function; (3) constitute a major potential risk of systemic risk; (4) outside the prudential supervision, behavioral supervision, and rescue system.

The fourth characteristic of a real estate business is self-evident. However, the presence of the first characteristic hinges on the substance of a financial institution, transcending mere legal definitions or the possession of a financial license. In essence, a company qualifies as a de facto financial institution if it inherently serves the function of providing financial services. As illustrated in the following description, real estate firms indeed offer such financial services.

Therefore, whether real estate firms can be regarded as shadow banks fundamentally lies in the second and third characteristics, i.e., whether credit, liquidity, and maturity transformations have been accomplished, and whether they constitute a significant potential for systemic risk. Next, we will analyze the real estate industry around each of these characteristics.

How do real estate companies function as credit intermediaries?

The basic definition of credit intermediation is to realize the conversion of savings into investment and to create credit in the process. The traditional credit intermediary is the bank; residents deposit their savings in the bank, and enterprises borrow from the bank for investment, so the bank plays the role of credit intermediary and accomplishes credit expansion.

By making funds available to real estate firms through pre-sale payments, residents effectively complete the conversion of savings to investment. Considering that residents use more of their savings to purchase homes, this also holds, i.e., residents turn their savings into real estate assets, and this process then provides financing for the real estate. In terms of the function of credit intermediary, this is not fundamentally different from the conversion of savings into investment (credit) in which residents deposit money in a bank and then the bank extends a loan to the enterprise, except that it is the real estate enterprise that completes the credit intermediary.

The above mechanism is illustrated below by the example of a resident purchasing a residence. Assuming that residents want to buy a residence worth $1 million, then in the absence of a pre-sale system, real estate firms can only sell residents a house that has already been built, i.e., an existing house. The whole process is shown in Figure 6, where the $1 million deposit of the residential sector becomes a residence worth $1 million, while the real estate firm's $1 million inventory (the existing house) becomes $1 million in cash. This process involves no credit intermediary and no credit creation.

Figure 6: Process of buying ready-built homes without pre-sales

With the introduction of pre-sales, depicted in Figure 7, real estate companies can advance sell $1 million worth of properties to customers. Consequently, the firms' deposits increased by $1 million in the current period, accompanied by a rise in contract liabilities of $1 million. Simultaneously, the $1 million deposit from households transforms into $1 million worth of real estate over time. This results in a balance sheet expansion for the real estate business, akin to completing a credit creation process. Essentially, this model mirrors the impact of a bank extending a loan to a real estate firm.

In a more fundamental sense, the pre-sale system itself is a mechanism for credit creation.

Figure 7: Process of buying pre-sale homes

Before purchase

Household Assets	Household Liabilities	Developer Assets	Developer Liabilities
Cash: 1 million			

After purchase

Household Assets	Household Liabilities	Developer Assets	Developer Liabilities
Property under construction: 1 million yuan		Cash: 1 million	Contract Liabilities: 1 million yuan

(2) How do real estate enterprises realize maturity and liquidity transformation?

If pre-sale funds (contract liabilities) are used for construction only and not for land acquisition by real estate enterprises, there won't be obvious maturity mismatch, nor liquidity transformation. Bank loans and other external financing, if used only for development, may have slightly higher financing costs compared to pre-sale funds, and would involve some degree of maturity and liquidity mismatch.

However, when real estate enterprises use pre-sale funds for land acquisition, it leads to a fundamental change of the whole model. The so-called high turnover model in real estate, its most typical feature is using pre-sale funds from other projects for land acquisition; otherwise, it cannot be considered high turnover but merely high leverage. Of course, in this process, funds for land acquisition are not only from pre-sale funds, but often involve the participation of non-banking financial institutions such as trusts and private equity. In short, as long as real estate enterprises leverage in the land acquisition process, maturity transformation and liquidity transformation have occurred in practice.

Specifically, the land acquired through various types of financing or pre-sale funds is, in its inherent nature, an ultra-long-term and illiquid asset. Whether it is land or projects that have entered the construction phase or unsold properties that have already been built, it is accounted for as inventory in current assets. During the time when the real estate industry remains stable, the land held by a real estate enterprises may be a relatively liquid asset.

Still, in the case of industry-wide difficulties, disposing of land becomes very challenging because other industries do not need as much land. On the liability side, pre-sale funds used for land acquisition and funds from trusts and other sources manifest as contract liabilities and various types of loans. This portion of the liabilities often has a duration of 1-3 years and, in practice, is in the form of rolling borrowings. Pre-sale funds (contract liabilities) also need to be used to deliver houses within the contract period, exhibiting the attributes of rigid redemption.

On one side, there are ultra-long-term and low-liquidity assets (land), and on the other side, there are short-term, rolling borrowings, and some liabilities with the attributes of rigid redemption. When real estate enterprises leverage in the land acquisition process, they also complete maturity and liquidity transformation. The result is that the asset-liability structure of real estate enterprises exhibits serious maturity and liquidity mismatches.

(3) How to view the complex contagion of real estate enterprises?

The complex contagion of the real estate sector is primarily manifested in three aspects.
First, there is a very close and extensive connection between real estate enterprises and the financial system. Over the years, real estate enterprises have remained significant debtors to financial institutions such as banks and trusts. Especially against the backdrop of strict limitations on real estate financing in recent years, real estate enterprises have continuously innovated financing methods, becoming the largest debtors to non-banking financial institutions such as trusts in practice. Therefore, reduced debt repayment capability of real estate enterprises would impact the asset quality of these financial institutions, thereby directly affecting the stability of the financial system. On the other hand, the downturn in the real estate industry, as it directly influences the pricing of collateral such as land and real estate, can lead to a devaluation of land and real estate, indirectly affecting the stability of the financial system.

Second, there is a clear regional mismatch in the asset-liability structure of the real estate industry. The recently released Implementation Opinions on Promoting the High-Quality Development of Inclusive Finance explicitly proposes "strictly limiting and regulating the cross-regional operations of small and medium-sized banks," one reason being to prevent the cross-regional contagion of risks. Most large real estate enterprises in China conduct real estate projects nationwide. However, as real estate projects are not subject to similar constraints based on liabilities, a considerable portion of projects in reality exhibit a clear regional mismatch between assets and liabilities. Financing for projects in Region A may come from financial institutions in Region B. In such a scenario, if there are liquidity issues in projects in Region A, it directly transmits to financial institutions in Region B.

Third, the commercial models of real estate enterprises are highly similar, and if one real estate enterprise encounters debt issues, it directly influences the market's assessment of the entire industry as a whole. This aspect has been solidly proven in the past year when several major real estate companies encountered debt defaults. Such a phenomenon barely exists in other manufacturing or service sectors. However, it is frequently seen in the financial industry.

In summary, by dissecting the business models and balance sheet structures of Chinese real estate enterprises, we find that these enterprises precisely exhibit characteristics akin to shadow banking.

Through a series of business model designs and operations, real estate enterprises in China have effectively performed the function of credit intermediaries, transforming people’s savings to investment. In this process, real estate enterprises achieve maturity transformation and liquidity transformation, taking on the risks of maturity mismatch and liquidity mismatch. Simultaneously, there is a close asset-liability relationship between real estate enterprises and financial institutions, and an obvious regional mismatch in the internal asset-liability structure, which can directly impact financial stability and spread across different regions. However, real estate enterprises do not, in any meaningful sense, belong to the category of financial institutions, so naturally there is no systematic financial supervision from official authorities and liquidity support in emergency situations for them.

As a non-typical shadow banking system, the asset-liability scale of China's real estate industry has surpassed the combined asset-liability of some existing licensed financial institutions. According to data released by the National Bureau of Statistics, as of the end of 2022, the total assets of China's real estate development industry amounted to 112.65 trillion yuan, with total liabilities reaching 89.15 trillion yuan, including real estate development loans amounting to 12.69 trillion yuan. In comparison, in 2022, the total assets of China's trust industry were 21.68 trillion yuan, and the scale of wealth management assets was 29.96 trillion yuan, summing up to only 51.64 trillion yuan. Even when adding the asset of the insurance industry which was 27.14 trillion yuan, it remained lower than the total liabilities of the real estate development industry.

III. UNDERSTANDING THE CHALLENGES OF REAL ESTATE ENTERPRISES FROM THE PERSPECTIVE OF SHADOW BANKING

First, the entire real estate industry is facing an obvious liquidity crisis. As analyzed earlier, the sustainability of the asset-liability structure of the real estate sector is highly dependent on the liquidity in the sales and financing processes. Only when sales are smooth and financing is readily available can assets like land be converted into under-construction and completed projects at a rapid pace. The mismatch in maturity between assets and liabilities can be mitigated, or at least not exacerbated. However, if there are issues in the sales process, assets such as land, under-construction, and completed projects, which are considered inventory, no longer function as liquid assets in accounting terms. They transform into long-term illiquid assets. At this point, real estate enterprises have to rely on external financing to sustain this maturity and liquidity mismatch. Otherwise, this mismatch can quickly escalate into a liquidity crisis.

This may well be what we are seeing in reality. An already evident maturity and liquidity mismatch on the balance sheet, when suddenly hit by severe liquidity shocks, led to a lengthening of asset duration and a worsening of liquidity. The issues with maturity and liquidity mismatch on the balance sheet then erupted, and the liquidity shock further contributed to a decrease in debt solvency.

Second, some real estate enterprises are having difficulties in meeting their debt obligations, with actual net assets already turning negative. Starting from the basic principles of finance, an increase in leverage means that changes in net assets become increasingly sensitive to adjustments in asset valuation and liability costs. For those real estate enterprises with a high leverage, slight adjustments in asset prices on the asset side and costs on the liability side can lead to insolvency issues. Evergrande is the most typical example. After two years of significant adjustments in the entire real estate industry, asset valuations have undergone considerable and sustained changes, and it's not inconceivable that more real estate enterprises have negative actual net assets.

Third, the real estate industry is a pillar industry in China, and its challenges are systemic ones. The fundamental attributes and business models of the real estate sector determines that debt risks of the sector contains a direct and systemic contagion effect. Apart from directly affecting the financial system, it can have widespread impacts across regions, markets, and industries. The contraction of the real estate industry will directly reduce demand for upstream commodities and downstream derivative consumer goods, leading to noticeable supply-demand imbalances in these industries and deteriorating cash flow and profit conditions. It will also directly reduce local fiscal revenues and expenditures.

IV. HOW TO CONSIDER THE DISPOSAL OF REAL ESTATE ENTERPRISES FROM THE PERSPECTIVE OF SHADOW BANKING?

First, it is worth noting that the starting point of the 2008 global financial crisis was the run on shadow banks in the United States. The subprime crisis that began in 2007 was the first global financial crisis triggered by a run on shadow banks. The immediate cause of the crisis was the traditional financial institutions' withdrawal from the shadow banking system due to concerns about asset quality. This directly led to a significant liquidity shortage. The shadow banking faced immense liquidity constraints, but unlike commercial banks, it could not receive assistance from the central bank. It had no choice but to continuously sell assets, causing drastic fluctuations in asset prices, ultimately transmitting to traditional financial institutions and the entire economy.

If we make a simple analogy, since real estate enterprises can be understood as a form of shadow banking, the collective tightening of financing support for real estate enterprises by traditional financial institutions, represented by banks, for various reasons over the past period, has essentially amounted to a run on the real estate industry. This has subjected all real estate enterprises to tremendous cash flow pressure in a short period, with the mismatch of terms and liquidity issues of some real estate enterprises rapidly surfacing, eventually leading to debt defaults seen in the market. Debt defaults further triggered concerns among homebuyers and the financial system about the sustainability of real estate enterprises, directly resulting in tightened cash flows and worsened financing conditions. There has been a noticeable negative feedback loop between real estate debt defaults, tightening financial institution financing, and people's declining willingness to purchase homes.

Second, baojiaolou (ensuring the delivery of homes) is similar to the specialized disposal of certain assets and liabilities of shadow banks. As mentioned earlier, baojiaolou involves only a portion of contractual liabilities and the corresponding inventory assets, not the entire balance sheet of real estate enterprises. If the cash flow of property enterprises cannot restore quickly, the structural contradictions in the balance sheet due to term mismatches and liquidity mismatches won't be eased, and there is no way to solve the debt problem of the real estate sector.

Thirdly, the territorial jurisdiction principle is similar to disposing of assets and liabilities of shadow banks based on regions. This principle is a conventional approach for dealing with the debts of general enterprises or risks of regional financial institutions, with a premise that the assets and liabilities of enterprises limit to some specific region. In reality, the operation of real estate enterprises inherently has systemic features, with large enterprises operating projects nationwide, and the assets and liabilities of each project may not strictly limit to one region. This requires higher-level departments to coordinate so as to recover the cash flow in the sector. Local governments do not have such capabilities, while relying solely on local resources or fiscal resources would be inadequate.

Fourth, it is suggested to adopt a more comprehensive, systematic, and applicable approach to dispose real estate enterprises, similar to the one for disposing of financial risks. Our analysis indicates that real estate enterprises have obvious financial attributes, so it is reasonable to consider the disposal of real estate enterprises by referring to the approaches for dealing with financial risks, rather than just following general enterprise risk disposal practices. Dealing with financial risks has its specific characteristics, and improper disposal may increase rather than reduce risks. After the 2008 global financial crisis, countries have accumulated a lot of experience and lessons in addressing and resolving financial risks, especially in dealing with problematic financial institutions and preventing the diffusion of financial risks. These experiences and lessons are worth consideration and borrowing.

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