## Market Research

## Debt crisis in real estate enterprises

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——Is the pre-sale system innocent?

#### **Abstract:**

The failure of businesses to foresee future trends and the tightening of policies regarding businesses' debt ratios were the main causes of the debt crisis that broke out in the Chinese real estate sector.

However, the pre-sale mechanism also contributed significantly to the disaster because it failed to fulfill its responsibility of regulation.

Real estate companies should plan their developments logically in order to avoid a debt problem, but the government should also modify the pre-sale system in order to make it more appropriate for the situation.

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### **Introduction: Debt Crisis in China Real Estate**

#### 1. Background

Since the end of June, the owners' loan suspension fiasco triggered by the property stoppage and rotting has erupted in many places in China: the owners of rotting buildings in many places recently stated that they temporarily stop repaying their loans until the relevant projects are fully resumed.

The incident involved Henan, Hunan, Hebei, Guangxi, Guangdong, and other provinces, a total of 13 listed banks responded to the rotten building stop loans, involving the mortgage amount of more than 3.2 billion RMB.

Some institutions estimate that defaulted housing enterprises accounted for about 25% of the industry's total capacity, a total amount of about 500 million square meters, according to 10,000- RMB square meter asset price, the corresponding asset value of 5 trillion RMB.

Kerry has issued a report saying that by the end of 2021, the total construction area of complex projects that have not yet been delivered in its 24 key monitoring cities is about 24.68 million square meters, which accounted for 10% of the total area of residential, commercial transactions in 2021. Among these cities, Zhengzhou, Changsha, Chongqing, and Wuhan are at greater risk of project delivery, with the total number of undelivered problematic projects exceeding 20,000 units.

This incident outbreak mirrors the flaws of the domestic real estate financing and lending system. In the next section, a detailed introduction and analysis of the impact of the incident, as well as the domestic home selling system (pre-sales, existing house sales), will be covered.

#### 2. Impact

This real estate crash involves many companies and has a wide range of impacts on the whole real estate industry, including the real estate cycle, front-end, sales, and investment.

The real estate thunderstorm event will affect the real estate cycle.

Take the Evergrande thunderstorm incident as an example. After the outbreak of the "Evergrande incident," the high turnover mode of "land acquisition-construction-construction-completion-sales" was changed, and the real estate industry's cycle was postponed.

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The real estate industry is a specific financial industry with high leverage and turnover. From history, the real estate industry has a cycle length of 3 years, which also constitutes the Chinese economic cycle.

From the perspective of the real estate cycle, after the "construction year" from the second half of 2020 to 2021, the rebound of sales growth may drive the real estate industry to continue acquiring new land and entering a new round of the real estate cycle. After the outbreak of the "Evergrande incident," the high-turnover model tends to be in its twilight, and the enthusiasm of real estate enterprises to take land and the willingness of new construction decreased. Many enterprises choose to extend the payment cycle, and then affect the payment progress of its upstream and downstream industries, therefore, causing the real estate cycle to be delayed after the year of construction growth in 2021.

Front-end real estate: Two rounds of the land auction in 2021 have seen an increase in the rate of the abortive auction and a decline in demand for land acquisition.

Under the effect of financing policy tightening, with the previous experience of Evergrande, Taihe, Huaxia Happiness, and other companies with high debt, high leverage, and high turnover thundering one after another, the risk event has a warming effect on the operation of high leverage enterprises. Real estate developers tend to be more conservative and cautious in their business strategies. In 2021, the enthusiasm of real estate developers to acquire land dropped significantly, with the land abortion rate jumping to 30% in a single month in August, the premium rate of land transactions also dropped significantly, and some cities even withdrew their land plots before the auction.

The weak growth rate of land acquisition and new construction have continued into 2022, and as a leading indicator of the real estate cycle, it will drag down the growth rate of construction and completion in the latter part of the year.

Real estate sales: the demand side of mortgage lending regulation led to "volume and price decline."

In the first half of 2021, macro-prudential policies guide the issuance of mortgage loans, and some banks have tight quotas. Even large state-owned banks in Shanghai no longer grant loans for the original construction of second homes in the 80s and 90s, extending the lending cycle

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from 3-4 months to more than six months before June, resulting in real estate sales "volume and price decline."

According to the data released by the National Bureau of Statistics, the sales of commercial properties nationwide in August 2021 fell by 18.70% year-on-year. According to the latest sales data released by Kerry in September, the TOP 100 real estate enterprises achieved a full-caliber monthly sales amount of 844.34 billion RMB, down 36.6% year-on-year;

Tracing real estate sales in June 2021 through the inflection point, the growth rate of real estate sales of all calibers since the third quarter fell to negative values, in sharp contrast to the hot real estate transaction market in the first quarter of 2021.

Real estate investment: the real downward challenge may come after a big year of construction.

With real estate activity accounting for about a quarter of China's gross domestic product (GDP), a default by Evergrande would have a ripple effect not only on the Chinese economy but even on global growth. Fading investor confidence in the Chinese economy has led to a recent downturn in China's real estate market. From historical data, new construction starts are about three years ahead of completion. With the completion of the stock of construction in progress, the fourth quarter of 2021 to 2022 may be the end of the "completion year" for real estate investment, and the tenacity to support the growth rate of real estate investment may also fade.

#### 3. Remedy

To mitigate the impact of the real estate thunderstorm, many domestic enterprises are taking over the current destructive projects.

At the end of June 2021, the largest and longest-running rotten project in Fuzhou City, with the most significant number of petitioners, Shunhua Century Gouzhou, was taken over by Xiamen Asset Management Company with Blue City Group.

At the end of January 2022, a company under Oriental Assets took over Xi'an Gaoxin Saige Plaza for 549 million RMB, which was initially planned to be a landmark commercial complex in Xi'an. It had changed hands four times and halted for five years, and now it has fallen to Oriental Assets.

On February 15, 2022, the 15-year-long rotten Obesa Shopping Center in Fangzi District, Weifang, Shandong Province, was taken over by private asset management company Shandong Haofinancing Properties, which is expected to be completed by the end of 2022.

## Analysis on the Causes of Debt Crisis in Real Estate

#### 1. Liquidity risk -- Taking Evergrande as an example

#### Financial Analysis of Evergrande – High Leverage

In 2017, the net debt ratio of Evergrande reached a highpoint of 240%. Although the net debt ratio decreased from 240% to 118% later, the payable amount increased from 399.5 billion RMB to 951.1 billion RMB in the same period, which happened because of the transfer of the liabilities to the original financial institutions to the industrial chain partnership (the interest-bearing liabilities were converted into payable amounts). Evergrande's balance of Commercial Paper is far higher than other companies in 2020, nearly eight times the second largest.

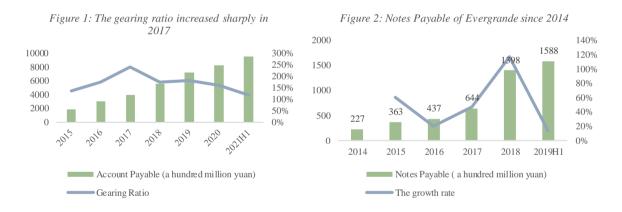
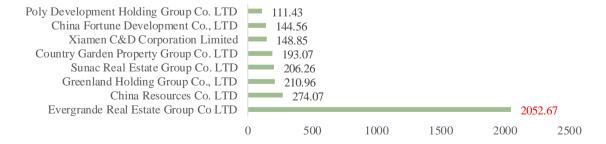


Figure 3: Real estate enterprise Commercial Paper balance in 2020 (a hundred million RMB)



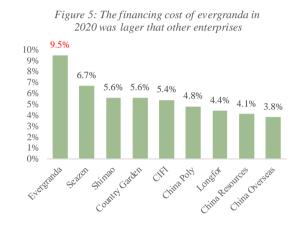
Source: Corporate Annual Report

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Therefore, when there is a liquidity crisis, the default of Commercial Paper will break out earlier than the financial liabilities.

Huge interest-bearing liabilities combined with high financing costs make Evergrande's interest expenditure (estimated based on interest-bearing liabilities \* financing costs) 593/551/719/68 billion RMB from 2017 to 2020, which erodes profit margin greatly every year.

Figure 4: The net profit ratio of Evergranda in 2020 was significantly lower that other enterprises 30% 25% 19% 18% 17% 17% 16% 20% 14% 14% 15% 12% 12% 10% 5% Country Chrisen VANKE CIFI Longfor Shirman



Source: Corporate Annual Report

Evergrande blindly invested in diversification business, forming an "eight-wheel drive". However, the return of diversification business is not up to its expectations, among which Evergrande Automobile incurred the biggest loss. Its diversified business included real estate, automobile, property, cultural and tourism, health, water, Internet and intermediary, etc., and has formed listing platforms such as Evergrande China, Evergrande Property, Evergrande Network and Evergrande Automobile. Since 2016, the diversified listing platform has suffered a cumulative loss of 13.9 billion RMB in net profit attributable to its parent.

40.0 26.5 19.4 20.0 1.03.11.15.1 1.2 2.4 0.00.00.50.50.0 2021H1 2016 2017 (20.0)(14.3)(10.7) (40.0)(34.1) (44.3)(47.3)(60.0)(80.0)■ Hengteng Network ■ Evergrande Auto ■ Evergrande Property

Figure 6: The profit attributable to shareholder of Diversified business platform

Source: Corporate Annual Report

#### The logic of debt crisis

Under the logic of high leverage and rapid expansion, Evergrande borrowed a mint of money and acquired large amounts of land in 2016 and 2017 with its net debt ratio reaching its peak in 2017, saddling itself with huge debts. However, while bearing high financing costs, Evergrande did not consider how much profit such a high interest rate could bring. As a result, Evergrande's net interest rate gradually dropped from 11.91% in 2017 to 6.19%.

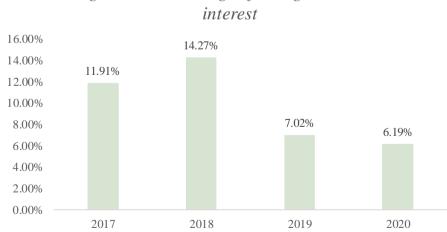


Figure 7: The change of Evergrande's net

Source: Corporate Annual Report

It is still a long cycle from the land auction to the completion of the payment collection. Evergrande is unable to timely convert the land reserves obtained from the auction into sales

collection, but it still needs to bear the pressure of high debt constantly which eventually leads to the inevitable debt crisis outcome.

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Figure 8: The cost of land acquisition and the value of land owned reached peak in 2017

■ Cost of land acquisition (a hundred million) ■ Value of land owned (a hundred million)

Source: Corporate Annual Report

#### 2. Policy supervision - the accelerator of real estate debt crisis

In 2018, the government put forward the policy of "houses are for living in, not for speculation", and implemented various restrictive and regulatory measures. On August 20, 2020, the Ministry of Housing and Urban-Rural Development and the People's Bank of China jointly held a symposium for key real estate enterprises, including 12 real estate enterprises including Country Garden, China Evergrande, Vanke, Sunac, Zhongliang Holdings, Poly Development, New City Holdings, China Overseas Holdings, Overseas Chinese Town Group, Greenland Holdings, China Resources Land and Yangguang City. On the basis of implementing the long-term real estate mechanism, it is proposed to form the capital monitoring and financing management rules for key real estate enterprises, and the specific standards cover the "three red lines".

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Figure 9: Three red lines regulations

Grade	The limit of the growth in interest-bearing liabilities	Criteria One	Criteria Two	Criteria Three
Red grade	No increase in interest-bearing liabilities	The asset-liability ratio after excluding the advance payment > 70%	Gearing ratio > 100%	Cash short-term liability ratio < 1
		The asset-liability ratio after excluding the advance payment > 70%	Gearing ratio > 100%	
Orange grade	Annual growth of interest- bearing liabilities <= 5%	The asset-liability ratio after excluding the advance payment > 70%		Cash short-term liability ratio < 1
			Gearing ratio > 100%	Cash short-term liability ratio < 1
X. II	Annual counts of interest	The asset-liability ratio after excluding the advance payment > 70%		
Yellow grade	Annual growth of interest- bearing liabilities <= 10%		Gearing ratio > 100%	
				Cash short-term liability ratio < 1
Green grade	Annual growth of interest- bearing liabilities <= 15%	The asset-liability ratio after excluding the advance payment <= 70%	Gearing ratio <= 100%	Cash short-term liability ratio >= 1

Source: Capital supervision and financing management rules of key real estate enterprises from the central bank and the Ministry of Housing

December 31, 2020, the central bank-imposed restrictions again on real estate, by setting "two red lines" of the scale of mortgage for banks.

The first red line is "the proportion of real estate loans". It is the ratio of the real estate loan balance of the banking financial institution to the RMB loan balance of the institution. The second line is "the proportion of individual housing loans". It is the ratio of personal housing loan balance of the banking financial institution to the RMB loan balance of the institution.

The "three lines and four grades" rules of capital monitoring and financing management of key real estate enterprises and the requirements of real estate loan concentration management are all aimed at reducing the debt of the real estate industry to prevent potential systemic risks imposed by the real estate industry on the banking and financial industry

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For real estate enterprises, to transfer from the past high leverage mode to stable development mode, large cash flow is needed to repay the existing debt. If a real estate enterprise wants to obtain cash flow, it can start from three aspects. For operational cash flow, it can use method like selling at a reduced price to convert the existing land storage into cash flow as soon as possible; For financing cash flow, it can obtain external funds by issuing bonds or borrowing from banks; For Investment cash flow, it can sell off land projects that are too late for development or sell off its diversified business assets.

The planning of real estate industry reduces the potential risk, but also make the financing of real estate enterprises become more difficult at the time, blocking the possibility of enterprises to repay debt through the financing of cash flow and accelerating the real estate enterprise debt crisis.

Above we have discussed the debit crisis phenomenon in China and explored its potential causes. Though the irrational high leverage is the main problem, the system is also to blame for its permission. To better understand the role of the system in the debit crisis, we'll briefly introduce the pre-sale system first in the following.

## **Chinese Pre-sale System**

#### **Definition and Process**

The Pre-sale System permits real estate development companies selling houses under construction to buyers before the buyers pay deposit or house payment, basically consisting of 4 stages:

- (1) Apply for pre-sale license
- (2) Sign a commercial housing sales contract
- (3) Carry out filing registration and advance notice registration
- (4) Delivery of the house

#### Why was the pre-sale system set up?

- (1) Developers can sell off-plan houses, which solves the two major problems: lack of funds and long development time periods for housing companies. Housing supply has accelerated.
- (2) Since then, the housing reform has been monetized in mainland China. The PBOC have quickly introduced relevant credit policies to support home buyers.

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#### Key Question: Where did the pre-sale regulatory funds go?

In 2004, the 'Administrative Measures for the Advance Sale of Urban Commercial Houses' clearly stipulated that the proceeds from the advance sale of commercial houses by the development enterprises should be used for related constructions and formulated by the real estate management department.

However, there has not been a unified pre-sale fund regulation across the country. The proportion of key supervision funds in Taiyuan, Kunming, Chongqing, Changsha and other cities is about 15-40% of the total pre-sale payment, while Zhengzhou, Fuzhou, Hefei and other cities are calculated by multiplying the construction and installation cost of the project by the construction area or the total project price quotation. Meanwhile, many house purchase funds have not entered the supervised account, or have been misappropriated after entering the supervised account, resulting in the lack of funds to continue the construction of the real estate. The monthly payment is forced to continue to repay without a deadline for repossessing.

Moreover, the high turnover rate has led to the 'hidden rule' to transfer funds from the pre-sale supervision account. For example, the general contractor of the project, in the name of the project construction, obtains funds from the supervision account and let money flow among the projects in various places, adding leverage in disguised form. This provides liquidity but risks have also been thrown to the home buyers:

#### What the resulted risks are?

- (1) During the waiting period for handover, which is generally two years, the buyers not only need to pay the bank interest, but also bear the risks of delayed handover, 'one house and two sales', house quality, extension of the real estate certificate and even failure to hand over the house.
- (2) If the developer defaults, the house buyer can only claim power from the developer according to the house purchase contract, but still, it is necessary to repay the loan to the bank on time according to the mortgage loan contract, so the home buyer bears a greater risk.
- (3) The pre-sale system promotes excessive borrowing and high-leverage expansion of some housing companies. If the capital encounters a downward cycle, it will lead to a series of risks such as the rupture of the capital chain and the shelving of projects, which will affect

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their own credit and the confidence of home buyers in the industry.

(4) As the lender of mortgage loans, once the real estate company has a series of problems and the buyer loses the ability to repay or cannot repay in the short term, the risk is entirely borne by the bank as the house has been paid from the bank. The bank will face greater pressure on bad debts.

## **Overseas Pre-sale System**

#### What highlights are there?

(1) Prepayment protection

For the prepaid funds of home buyers, there is generally a deposit or prepayment protection mechanism, such as the United Kingdom and Japan.

(2) Proportion of prepayment

The prepayment ratio required to be paid by home buyers is relatively low, and most of the house payments start to be paid after the house is delivered.

(3) Payment method of advance payment

Advance payment is generally paid in the form of a deposit or paid in installments according to the progress of the project, or both.

(4) Mortgage loan methods

Either pay according to the progress of the project or issue the mortgage loan after the house is delivered.

(5) Unfinished housing protection

Provide unfinished housing insurance for pre-sold commercial housing and protect the rights and interests of buyers when the commercial housing has major delays or major defects.

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Figure 10: The comparison of Pre-sale system in America, Germany, England, Japan, and Singapore

	US	UK_Case1	UK_Case2	Japan	Singapore
Deposit ratio	1%-5%	Around 2000 euros	10%	5%-20%	5%
Down payment ratio	Min: 3.5% Average: 12\$	Can be 0	10%-25%	Max: 20%	Around 15%
If the buyer defaults and the deposit is returned	Based on contract items	No Return	No Return	No Return	Return 1/4 of the 5% deposit (i.e, a deposit of 3.75% of the house payment)
If the developer defaults and the deposit is refunded	Get it back by applying for arbitration	-	Return 10%	If the deposit exceeds 5% or exceeds 10 million yen, it will be refunded	All return
When to payback remaining house payment	Pay after delivery	Based on construction process	A small part is paid according to the progress of the project, and most of them are paid when the house is handed over	Most of the payment is paid on delivery	Payment according to progress
Supervision of pre- sale funds	Third-party escrow fund account	-	Account managed by buyer and seller lawyers	Third-Party Fund Regulator	bank special fund account
Is there any off-plan housing insurance?	-	Yes	-	-	-
Is home inspection mandatory?	Yes	-	Yes	-	-
Is there a warranty period after delivery	-	5-year-warranty period	-	-	1-year-warranty period, and 15% final payment

Source: Tencent, government official websites, Zeping Macro

## Alternative Mechanism (Existing House System)

The existing house sale system is different from the pre-sale house system, which is also increasingly favored by local governments after the thunderstorm.

The existing house sales system is the real estate developers will be the entire district fully completed construction, including the district garden, landscape, landscaping, municipal roads, and commercial support, while the completion of the acceptance of the property transactions delivered to buyers to use.

Last March 7, Hainan issued a policy stipulating the construction of new land for commercial housing and the implementation of the existing home sales system. According to the new rules, the current house sales houses should pass the complete acceptance and water supply, power supply, gas, communications, and other supporting infrastructure with delivery conditions.

#### Impacts of the existing house sales system

#### Impacts on developers

Pre-sale houses from land auction to sale only take about six months, which is fast for developers to get back their capital, equivalent to building a house for you with your money. On the other hand, it takes 2 to 3 years to sell a home in phase, which is not conducive to capital turnover and is a big challenge for small housing developers.

#### Impacts on homebuyers

The existing house can be more intuitive for home buyers to see the house's structure, layout, lighting, etc. It can avoid some problems of the phase house system, such as bad buildings, contract disputes, inadequate community support, sales traps, housing quality problems, etc.

## Suggestions for Pre-sale System to improve

Though it is impractical to entirely change the pre-sale system, we can still get some inspirations about the improvement directions to prevent the recurrence of debt crisis after analyzing the cause of debt crisis, current Chinese and oversea pre-sale system and Existing House System.

#### In the deposit phase

To preserve the buyer's money in the event that the developer defaults, put in place a deposit protection system. One option is to freeze the paid deposit until house delivery.

#### In the contract signing process

Insurance providers are urged to step in and offer adequate protection against significant delays and significant structural flaws. To properly safeguard the rights and interests of home buyers, a payment mechanism based on the project's progress or a mortgage loan mechanism after the house is delivered must be devised for the payment of the remaining amount.

#### In the capital supervision link

To stop money from being misused, a third-party capital supervisory institution that is independent of developers and banks is introduced, or it is directly supervised by the appropriate government authorities.

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## In the delivery link

Create a mechanism for the duration of commercial housing warranties. The customer will pay the remaining balance once the warranty period has passed, and the developer should be completely accountable for the quality of the home during that time.