Research on Financial Risk Management of Real Estate Enterprises in China

—taking Greenland Holdings as an example

Xuchen Ling

School of Accounting, Nanjing University of Science and Technology, Nanjing 210094, China

olivialingxuchen@outlook.com

Abstract: The real estate industry is one of China's landmark industries, and its rise and decline is directly related to the national economy. With the development of economy in recent years, China's real estate industry has developed very rapidly. However, as a capital-intensive industry, real estate has the characteristics of high risk, high investment, long payback period and slow capital turnover, which inevitably leads to high financial risks for real estate enterprises. In addition, recently the relevant government departments have implemented a series of regulation and control programs for real estate enterprises, which has increased the risk. Therefore, the analysis and prevention of financial risks of real estate enterprises have very important practical significance at this stage. Based on the analysis of the manifestation and reasons for the financial risks of real estate enterprises, this paper takes Greentown Holdings as an example and uses the Z-score model to calculate the probability of its financial risks. It aims to identify problems and solve it with prevention and control and to provide a valuable reference for corporate managers to control and prevent financial risks.

1. The related concepts and theories of financial risk

1.1. The concept of financial risk

At present, the concept of financial risk in academia has different comprehension. Some of them think the financial risk refers to the risk of raising funds, which also means the uncertainty of debt repayment caused by excessive borrowing. They think that there is no financial risk without debt. Some scholars think financial risk is the concentrated performance of various risks in the whole process of the enterprise. In the actual business process of the enterprise, any problem in the process of organizing and managing the financial activities will increase the possibility of occurring a crisis [1]. The financial risk in this paper refers to the risk of damage to the financial interests of the enterprise caused by the internal and external environmental changes.

1.2. Types of financial risks

Financial risks can be divided into the following four categories according to their occurrences: First, financing risks. It refers to the possibility of unreasonable borrowing. Second, investment risk. It refers to the risk that the actual income will not be as expected due to changes in demand. Third, the risk of capital recovery. It means the uncertainty of time and amount in the process of capital conversion. Fourth, the risk of income distribution. The risk of income distribution comes from two aspects. The first one is the risk of revenue recognition which means a high profit due to the existence of objective factors and errors in measurement methods. The second one is the in appropriate income distribution of the time, form, amount, etc.

1.3. Characteristics of financial risks

Understanding the characteristics of financial risk is a basic premise for financial management. In general, the characteristics of corporate financial risk can be roughly summarized as follows: First, the objectivity. Financial risk exists objectively in the market, runs through the whole process of management and does not shift with the will of managers. Second, the relevance. Financial risks

exist in the whole process of enterprise operation and affect each other. The third is uncertainty. Whether the financial risks are generated or not, when they are generated, the scale of the risk, and the magnitude of the impact are all uncertain. Fourth, controllability. Although financial risks can occur at any time, it can be predicted and prevented in advance [2].

2. Overview of Financial Risks of Real Estate Enterprises in China

2.1. Characteristics of real estate enterprises

Firstly, the liquidity is poor and the regionality is obvious. Houses are attached to the land in the form of fixed assets. Therefore, they have strong regional characteristics. The extremely uneven economic development between the vast territory and the huge differences in urbanization and market demand have led to great differences in the development progress and social needs of real estate in different regions.

Secondly, it is closely related to other industries. There are at least 40 industries related to the real estate industry, including cement, steel, flooring, furniture, home appliances, and decoration industries. Real estate plays a central role in this huge industry circle. If there is a problem in real estate, it will cause losses to all the relevant industries.

Thirdly, it takes a lot of money and lasts for a long time. The entire business process of the real estate industry relies on a large amount of funds. The process of investment to profit has to go through a long process [3]. Combined with complex market factors, high risks exist in many enterprises. At the same time, the long construction period makes the real estate industry uncertain and the financial risk level further improved.

Fourthly, it is greatly affected by macroeconomic policies. China's real estate is not only restricted by the market, but also has strong policy orientation. The introduction of various related policies has a greater impact on the real estate industry. The real estate industry is particularly sensitive to changes in national macro-level policies. In the case of real estate prices rising rapidly in recent years, the state continues to carry out macroeconomic regulation to make the industry develop on a given track. Any slight policy change will have a huge impact on the real estate industry.

2.2. The form of financial risk of real estate enterprises

The first is the abnormal financial indicators. The financial status of a company is closely related to its financial indicators. When the company's financial position is good, it can be reflected from its financial indicators; on the contrary, the indicators will be abnormal [5].

Second is the risk of debt repayment. The vast majority of funds for real estate companies come from bank loans. Excessive asset-liability ratios increase the financial risks of enterprises, resulting in insufficient cash flow, weak solvency, and the impossibility of repayment at maturity. Insolvency is a threat to the normal operation of the company.

There is also the difficulty of refinancing. When the financial situation of the company is not optimistic, it will become difficult to refinance, for example, the cost of refinancing may increase. Moreover, the refinancing channel will also be subject to some conditions, which will make financing difficult [4].

3. Application of Z-score model in financial risk assessment of real estate enterprises

3.1. Overview of the Z-score model

The Z-score model is a model created by Altman in 1968 to predict the bankruptcy. The model uses a variety of financial ratio indicators to weight and construct a multiple linear function formula to predict financial crisis, which is widely used in many countries.

Z-score model is as follows:

$Z = 1.2X1 + 1.4X2 + 3.3X3 + 0.6X4 + 0.999X5$.

$X1$ = working capital / total assets,

X2 = retained earnings / total assets,
X3 = profit before interest and taxes / total assets,
X4 = market capitalization / gross liabilities,
X5 = sales proceeds / total assets.

Generally speaking, when the calculated Z value is greater than 2.675, the company's financial situation is good. When the Z value is between 1.8 and 2.675, it usually indicates that the company's financial status is in a gray area and might face the financial risks. When the Z value is lower than 1.8, it indicates that the company There is already in a financial crisis.

3.2. The application of Z-score model——taking Greenland Holdings as an example

The core business of Greenland Holdings, known as Greenland Holdings Group Co., Ltd., is real estate development and operation. Its project covers 65 cities in 24 provinces including Shanghai, Beijing and Tianjin, and enters Jeju, Korea to implement overseas development strategy. The 2018 financial data of Greenland Holdings shows that in addition to the company's size, other financial indicators, valuation levels or market performance are not very good in the national real estate industry. The following is a calculation of the ratio of financial indicators in the Z-score model based on the data from Greenland Holdings' 2014-2018 annual report:

Table.1. 2014-2018 Financial Status Comprehensive Evaluation Index

	2014	2015	2016	2017	2018
X1	0.41	0.36	0.13	0.32	0.28
X2	0.18	0.18	0.1	0.05	0.05
X3	0.04	0.03	-0.03	0.02	0.02
X4	0.58	0.56	0.34	0.14	0.12
X5	0.07	0.14	0.01	0.35	0.34
Z	1.280351908	1.262035028	0.394998929	0.954892608	0.894052291

It can be seen from the table that the overall financial situation of Greenland Holdings is not good within five years. The value of Z is less than 1.8 in all the five years, indicating that the company has a financial crisis. The low value of Z is related to the real estate industry. Looking at the vertical comparison of five years, the overall financial situation composite index from 2014 to 2016 is significantly lower, the year of 2016 has reached a low point, and the financial risk level has reached the highest. But then the data of 2017 and 2018 has an improvement. The company has also expanded its scale from 2017 and increased its borrowing. Compared with the 16-year financial indicators, there is a decline in the year of 2018. This shows that the company's financial situation is unstable after the expansion, which is also consistent with the current unstable situation of the real estate industry. In this regard, enterprises should pay more attention to this situation and analyze the reasons and take targeted measures to strive to change the status quo, so that financial risks can be controlled to the maximum extent.

4. Control of financial risks of real estate enterprises

After identifying and evaluating the financial risks of Greenland Holdings, the next step is to control the identified financial risks. The following are the control measures proposed for the financial risks of Greenland Holdings.

4.1. Financing – deciding the right capital structure and developing diversified financing channels

In real estate companies, most of the funds come from commercial loans, that is, debt management. The asset-liability ratio of China's real estate enterprises is generally over 80%, and financial risks are generally large. In order to control the risk within the acceptable range of enterprises, enterprises should maintain a reasonable ratio of capital to debt by optimizing the capital structure, moderate debt, and control the ratio of assets to liabilities. At the same time, we must also seek diversified financing channels to improve the level of capital utilization.

4.2. Investment – Strengthening the Feasibility Analysis of Investment Projects

The real estate investment cycle is long and wide, and not easy to change. Any sudden incident may bring huge risks to the enterprise. Therefore, in order to reduce unnecessary risks and losses of enterprises, it is particularly important to strengthen the feasibility analysis and forecast of investment projects [6].

4.3. Operation - do a good job in sales of the project

An effective sales strategy is conducive to helping companies reduce inventory and enhance the liquidity of corporate funds, which in turn enables companies to operate better.

Therefore, real estate companies should conduct comprehensive market analysis to understand consumers' individualized purchase needs. At the same time, enterprises can work hard on sales methods and sales management to improve their ability to respond to different market environments and different levels of customer needs.

4.4. Cash Recycling – Strengthening Cash Recycling Management

Real estate enterprises involve a large amount of funds. Accelerating the withdrawal of funds, and improving the utilization of funds is a strong guarantee for the healthy operation of enterprises. Real estate enterprises should accurately assess the solvency of customers, establish a reasonable credit rating, and give different amounts of debts to different customers according to actual conditions [7]. At the same time, establish a system of responsibility for payment. Finally, coordinate the relationship between banks and enterprises to ensure the mortgages of customers and the loan can arrive in time.

4.5. Income distribution – reduce cash distribution and increase paid-in capital

When formulating income distribution policies, enterprises should fully combine the requirements of financing strategies and use the role of endogenous financing to reduce the distribution of cash. Enterprises may consider the use of stock dividends, stock options and other forms to increase the company's paid-in capital. Thereby expanding the scale of enterprise capital, optimizing the capital structure of enterprises, and reducing the risk of business operations, the cost of financing for real estate enterprises is reduced, and the profitability is enhanced.

References

[1] He Yumei, Zhang Tao, et al. 2011. Validity choice of financial crisis early warning model for listed companies. *Modern financial economy*, Vol. 31 (5).

[2] Li Jing. 2017. A summary of empirical research methods on financial risk early warning of realestate enterprises in China. *China Management Informationization*, Vol. 20 (13).

[3] Li Shuaihui. 2016. On the prevention of financial crisis in real estate enterprises. *Modern Economic Information*, Vol. 19.

[4] Sui juanjuan. 2017. Analysis of financial crisis prevention strategies for real estate enterprises. *Times Finance*, Vol. 17.

[5] Wang Wenhong, Yang Huilin, et al. 2015. Empirical Research on Z-Scoring Model of Financial Early Warning——New Evidence from Chinese Automobile Manufacturing Listed Companies. *Commercial Accounting*, Vol. 1.

[6] Wu Lin. 2016. Identification and early warning of financial crisis in small and medium-sized real estate industry. *Jiangxi Building Materials*, Vol. 11.

[7] Wu Xingze. 2011. Financial crisis early warning research: existing problems and framework reconstruction. *Accounting Research*, Vol. 2.