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Capital Structure of Construction Enterprises in Vietnam

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Abstract

The purpose of the article is to evaluate the current state of capital structure of Vietnamese construction enterprises. The research sample is 93 listed construction enterprises in Vietnam, including enterprises listed on the Hanoi Stock Exchange and Ho Chi Minh Stock Exchange. With statistical, analytical and comparative methods, the article has evaluated some outstanding features of the capital structure of Vietnamese construction enterprises in the

period 2018-2022. The capital structure of businesses is evaluated according to capital ownership relationship and capital mobilization time. In addition, the article also evaluates the debt structure and equity structure in detail. Through analyzing actual data, the article also offers some recommendations to help businesses manage capital more effectively and avoid financial risks brought by capital structure.

Keywords: Capital Structure, Construction Enterprises, Financial Risks

1. Introduction

Capital structure planning will help businesses have a financial safety threshold and shape the organization of capital sources. If a business does not plan its capital structure, it will be passive in mobilizing capital, have to pay high interest rates if it exceeds the limit, or may not be able to borrow if the business does not plan in advance, so businesses Enterprises may fall into a situation of insufficient capital to ensure production and business activities, causing damage to production. Building an optimal capital structure is very important for businesses because it is related to financial risk and payment risk, helping businesses proactively mobilize capital to ensure safety. For construction enterprises, planning the capital structure is very important, because the capital structure of construction enterprises has a very high debt ratio, on average accounting for 70% - 80% of total capital, even Enterprises with debt ratios of more than 90%. Previously, when the real estate market boomed, businesses only needed to have a project to make a profit, but now in all segments of the construction market there are signs of oversupply. In such a context, the use of financial leverage becomes a burden for businesses.

In recent years, construction enterprises have had different capital structures and were mainly determined according to each enterprise's own capital needs without systematic research and construction. Furthermore, the research problem is only limited to a general theoretical scope or has been researched on the scope of all businesses in general or other businesses in other industries, but there have not been any in-depth research projects of this nature. system for building capital structure in construction industry enterprises. On the other hand, construction enterprises in recent years have had many successes, contributing well to socio-economic development, but the issue of capital structure management still has many shortcomings. Therefore, theoretical research, practical surveys, and assessment of the current state of capital structure to consider the financial risks of construction enterprises are necessary.

2. Literature review

Gentry (1994) ^[6] compared the leverage and dividend payout ratios of US joint ventures in the oil and gas industry and found that joint ventures were not subject to corporate income tax, so it has a higher dividend payout ratio and uses less debt. This is consistent with studies on the impact of taxes on the capital structure choice of US companies such as the M&M theoretical model and studies on the impact of a tax factor on the choice of capital structure. Graham (2003) ^[1] also conducted an investigation on the impact of taxes on the capital structure of US businesses in 2003.

Michaely *et al.* (1995) ^[4] found that contrary to optimal dividend payout theories, corporate managers base dividends on past earnings more than on future earnings. In 1995, Rajan and Zingales provided a case study on corporate capital structure. This

scientific work was conducted at companies in G7 countries to evaluate the influence of a number of factors on capital structure. of businesses in OECD countries. The research result is that the book value of shares and the company's financial leverage have a strong inverse relationship, meaning that the higher the book value of shares, the higher the debt ratio in the structure. more capital. This study also shows that the average long-term debt/total assets ratio of companies in G7 countries is 41%.

Baker and Wurgler (2002) [3] investigated the influence of past earnings per share ratio on corporate capital structure, but they only showed the influence of this earnings ratio on issuance decisions. company's shares and does not consider implicit changes.

Keister (2004) [2] researched corporate financial strategies in a transition economy, typically China, and proposed hypotheses about the trend of changing capital structure of Chinese state-owned enterprises. The test results show that: In the first decade of the reform process, the more profits state-owned enterprises retained, the more they borrowed from outside debt, and the debt of enterprises increased with the change. Changing geographical conditions, businesses in developed regions borrow more from banks and less from other sources than businesses in developed financial areas and most businesses all depend on banks for loans.

In the national economy, the construction industry is considered a particularly important industry because it produces facilities for other industries to operate. Therefore, the capital scale of construction industry enterprises is very large, requiring businesses to mobilize all different sources of capital to serve production and business. This makes the capital structure of construction industry enterprises very diverse and flexible.

3. Research results

3.1 Capital structure according to capital ownership relationship

Table 1: Debt ratios of listed construction industry enterprises classified by business capital scale

	2018	2019	2020	2021	2022
Small business	0,67	0,65	0,64	0,62	0,61
Medium business	0,72	0,72	0,71	0,72	0,73
Large business	0,70	0,68	0,66	0,67	0,65
Average debt ratio	0,70	0,69	0,67	0,68	0,66

Source: Data processing by the author's team

Table 2: Regular and temporary capital sources for businesses listed construction industry

	2018	2019	2020	2021	2022
Liabilities and equity	113.135.342	113.716.723	123.265.592	144.879.295	161.783.091
Long term Liabilities and Owner's Equity	56.410.634	57.867.614	66.785.137	82.250.617	90.127.868
Current Liabilities	56.724.708	55.849.109	56.480.455	62.628.678	71.655.223

Unit: Million VND

Source: Data processing by the author's team

Based on data collected from reality, it can be seen that the asset structure of listed construction enterprises leans heavily towards short-term assets, the majority of enterprises have a proportion of short-term assets over total assets in about 80% - 85%, especially there are businesses with short-term assets that account for a very high proportion, up to 97.46%. There are only a small number of businesses with a low proportion of short-term assets. Although listed construction enterprises use short-term debt

Through the chart showing the level of debt use of construction enterprises classified by business capital size, we can see some of the following characteristics: (1) Average debt ratio of all enterprises studied at a high level, not much fluctuation and maintained at 0.61 - 0.72 in the period 2018 - 2022; (2) The debt ratio of small-sized enterprises is the lowest, the debt ratio of medium-sized enterprises is the highest, and in general, the debt ratio of the 3 groups tends to decrease in the period 2020 - 2022.

Among the three groups of enterprises classified by size, the group of small-sized enterprises has the lowest average debt ratio but there are many enterprises with the highest debt ratio. The increase in debt ratio is due to the company borrowing to expand its production and business scale. However, the company's business performance has declined, so the high debt ratio has a negative impact on the company's financial situation. Although the company's debt ratio tends to decrease gradually in the period 2018 - 2022, maintaining the debt ratio still at a high level makes the company's financial situation less healthy.

The loan amount is too large to meet the capital needs for investment projects, creating a financial burden for the company. Although the company's scale shrunk, the debt ratio increased, making the company's financial situation inevitably difficult. While the company's operating results decreased, the use of too much debt put the company in an even more difficult situation. However, in this group of businesses there are also businesses with debt ratios lower than the average. The company has an average debt ratio of 0.45 and not much fluctuation in debt ratio, demonstrating its potential and financial autonomy. The safe funding policy has given the company the stability to grow well in difficult economic conditions, reflected in the company's consistently growing business results in recent times.

3.2 Capital structure according to capital mobilization time

The structure of capital over time is mobilized by the enterprise based on the structure of the assets, through which it is possible to evaluate the temporal compatibility between the mobilization and use of capital by the enterprise. This is the basis for evaluating the impact of capital structure on enterprise risk through the financing model.

for a high proportion of total debt, they still use regular capital to finance a portion of short-term assets. In particular, there are businesses with a very high proportion of regular capital sources, an average of 93.24%, but in general, construction industry enterprises have a high proportion of capital sources. Regular capital on average total capital is over 50%. This proportion of businesses has fluctuated in the last 5 years but all ensure the principle of financial balance, no business uses short-term capital to

finance long-term assets. The use of regular capital to finance a portion of short-term assets shows that most listed construction enterprises have a safe capital structure, meeting funding needs.

In the past two years, a number of listed construction enterprises have tended to increase capital regularly. Although only a slight increase, this adjustment is appropriate, ensures greater safety, and creates conditions for businesses to invest in more long-term assets such as fixed assets, technology lines... to serve their products. do business better.

3.3 Debt structure and equity structure

3.3.1 Debt structure

Typically, short-term loans will have a lower cost of capital than long-term loans because long-term loans expose the lender to higher risks. With the same loan term, businesses with different credit levels will also have different interest rates. For loan capital, most businesses mainly use short-term loans. In particular, there are businesses that use 100% short-term loans such as South Hanoi Housing and Urban Development Investment Corporation, Binh Duong Construction and Transport Joint Stock Company. Using debt on a large scale and favoring short-term debt helps construction businesses save a lot of capital costs.

Table 3: Liabilities of listed construction industry enterprises in the period 2018 – 2022

	Unit: Million VND				
	2018	2019	2020	2021	2022
Total assets	112.144.340	113.716.534	123.265.263	144.878.187	161.788.290
Liabilities	78.709.193	77.339.978	818.149.710	96.587.782	106.419.730
Current Liabilities	56.779.875	56.807.630	57.737.094	63.671.057	72.719.325
Long term Liabilities	21.929.318	20.532.348	760.412.616	32.916.725	33.700.405

Source: Data processing by the author's team

Construction industry enterprises generally have a high ratio of short-term debt to total average debt, ranging from 65.92% to 73.44% in the period 2018 - 2022. Although the proportion of short-term debt long-term debt tends to decrease, the proportion of long-term debt tends to increase, but the risk level is still quite high due to the small scale of long-term capital.

Actual data shows that the group of large-scale enterprises often has a higher level of long-term debt use than the other two groups of enterprises. Higher levels of long-term debt financing make large-scale businesses more secure. Of the construction industry enterprises listed on the Vietnam stock market, 55% of enterprises have a short-term debt proportion of over 80%, 34% of enterprises have a short-term debt proportion in the range of 70% - 80%, The remaining are businesses with short-term debt ratio below 70%. Businesses mobilize short-term loans from different channels, but mainly short-term bank loans.

The volume of short-term bank loans of listed construction enterprises accounts for a very large proportion of the total short-term loans and this proportion has not had major fluctuations over the years. Occupying the second proportion in the short-term loan structure are loans from individuals and other organizations. This loan often has a higher cost of capital than a bank loan because businesses do not need collateral. Borrowing from employees in the company is a loan with a much lower cost than the above

two forms of borrowing, however it accounts for a small proportion, because not all businesses can access this loan because only Only businesses with high business results and stable income can use this form of financing. Although the ratio of internal loan capital of businesses is very small, it also contributes to reducing capital costs and increasing mobilized capital for businesses.

Long-term capital mobilization channels for businesses are bank loans, credit institution loans (usually financial leases), bond issuance and other loans.

Table 4: Proportion of capital mobilization by long-term debt of enterprises listed construction industry

	Unit: %				
Mobilization channel	2018	2019	2020	2021	2022
Bonds	3,82	3,25	2,63	4,05	3,74
Financial leases	12,24	11,95	12,67	13,43	13,32
Bank loans	83,94	84,80	84,70	82,52	82,94

Source: Data processing by the author's team

In long-term capital mobilization channels, construction industry enterprises still mainly borrow from banks. There are a number of bond businesses that account for a fairly high proportion of long-term debt, but today's businesses only account for a small minority, most do not issue bonds, so in general, this form of bond issuance accounts for the smallest proportion.

Financial leasing is a form of long-term loan, accounting for the second proportion of total long-term loans of construction enterprises. Compared to other industries, this proportion in construction enterprises is higher. Although financial leasing costs more than bank loans, it has the advantage of not requiring collateral and is easier to access. Comparing the cost of using loan capital sources, bond issuance has the highest cost, followed by financial leasing and the lowest is bank borrowing. Construction industry enterprises generally have a reasonable long-term loan structure, helping businesses save capital costs.

Most listed construction enterprises have a relatively stable capital structure, although the long-term debt ratio of the enterprises is very low but fluctuates little. The long-term debt ratio of most businesses fluctuates below 0.1 over the years, showing that construction industry businesses manage and operate capital mobilization policies with high consistency and stability. The main debt of these businesses is credit debt, which must pay interest.

3.3.2 Equity structure

Equity in listed construction enterprises is made up of two main parts: undistributed profits and capital from issuing new shares. With a large capital scale, in recent years, business results have not been very positive, so the retained profits of listed construction enterprises only account for a very small proportion of the capital needs of businesses. Capital from retained profits depends not only on business results but also on the dividend payment policy of businesses. During the period 2018 - 2020, the average dividend payout ratio of listed construction enterprises was in the range of 30% - 40%. Businesses with loss-making business results have difficulty mobilizing internal capital, but there are businesses that spend most of their income to pay dividends to shareholders while still retaining a large amount of profit to On the other hand, Coteccons

Construction Joint Stock Company spent 64.3% of the profits earned in 2020 to pay dividends.

Using internal capital sources brings many advantages, but this capital source cannot meet the capital needs of listed construction enterprises as their scale increasingly expands. Businesses must mobilize additional capital from outside by borrowing and issuing new shares.

Issue new common stock: Mobilizing capital from these two channels depends on the stock market, the conditions of each enterprise and the supply and demand situation of the debt market. The average proportion of debt in the last 5 years of construction enterprises is very large, on average 70% - 80%, mainly short-term loans. There are businesses that only use short-term loans without long-term loans.

Mobilizing capital by issuing shares is a mobilization channel whose proportion fluctuates unevenly over the years for listed construction enterprises.

Among the construction industry enterprises listed on the Vietnamese stock market, there are 54 enterprises that issued shares in the period 2020 - 2022. In the period 2018 - 2020, the stock issuance situation of listed construction enterprises slowed down compared to previous years. Due to less efficient operations, the need to increase the scale of enterprises decreased, less demand for capital mobilization. However, during this period, some companies especially issued shares with a large amount of capital mobilized. This helps the stock market, especially in the construction industry, become less gloomy during the crisis period and changes the capital structure of businesses.

By 2021, the construction and real estate market situation was more positive, so the number of businesses issuing new shares increased.

Raising capital through issuing shares of construction enterprises affects the capital structure, causing the equity ratio to increase, increasing the financial autonomy and solvency of the enterprise. Capital raised from issuing shares to raise more capital is not easy because it depends on many factors. Actual market operations and fluctuations have a great influence on a business's decision to choose capital sources. Depending on different stages, the business's goals for determining a reasonable capital structure are also different.

4. Conclusion and Recommendations

Through analyzing the current situation of construction enterprise capital structure above, it can be seen that construction enterprises have very high debt ratios and high financial risks. Therefore, businesses need to pay attention to business efficiency and consider adjusting their capital structure. The authors offer the following solutions for Vietnamese construction businesses:

- Make investment decisions suitable for the business: A correct investment decision will contribute to increasing the value of the business, thereby increasing asset value for the owner. On the contrary, a wrong investment decision will cause loss of business value, thereby causing property damage to the business owner. A mistake in investment decisions will lead to mistakes in financing decisions, causing the capital structure to be affected and business results to suffer losses. In particular, for construction industry enterprises, investment decisions are long-term and large-scale, so choosing investment options is even more important.

- Plan capital structure in the direction of increasing equity and financing capacity of the business: The use of high levels of debt is one of the shortcomings in the capital structure of construction industry enterprises, it brings businesses many financial risks.
- Increase long-term debt to ensure the safety and stability of the business's funding source: Short-term debt accounts for a very high proportion in construction enterprises, reflecting a very high level of risk in the enterprises' financing decisions, so businesses need to increase long-term debt.
- Apply bankruptcy risk detection tools to adjust debt usage to a safe level: How to detect early signs of bankruptcy risk in order to take timely measures to adjust the use of debt is an important issue for corporate financial administrators when planning capital structure. Many tools have been developed to detect warning signs of bankruptcy, of which the Z-score is the most recognized and widely used tool in the world.

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