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Capital Structure and Business Performance of Real Estate Companies Listed on the Vietnam Stock Market

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Abstract
The real estate sector is an important economic sector with a strategic role in the country's development. However, in general, the business performance of real estate companies remains at a low level. There are many reasons for the low business performance, with the improper use of capital structure being one of the main factors. This paper aims to analyze the relationship between capital structure and business performance of real estate companies. The data used was collected from financial reports of 74 real estate companies listed on the Vietnam Stock Market from 2019 to 2023. The findings of this paper are valuable for business managers in general and financial managers in particular, helping them make decisions on capital structure that are suitable for their companies to improve business performance.

Keywords: Real Estate Companies, Capital Structure, Business Performance, Financial Risk, Liquidity

1. Introduction

Business performance plays a crucial role and has significant importance, which is why most countries around the world encourage and create favorable environments for companies to improve their business performance, thereby enhancing the overall effectiveness of the economy. In recent years, although Vietnam's economy has made significant progress, businesses still face many difficulties. The impact of the economic crisis and recession remains a threat to companies' survival. Real estate companies are no exception and are facing challenges such as a lack of competitiveness, limited financial resources, low sales revenue, and poor business performance. Some of the typical difficulties real estate companies face today include intense competition in the industry, imbalance between total debt and available capital, and a sharp rise in borrowing costs, which erode profits and reduce business performance. Additionally, high debt levels expose companies to greater financial risk. From 2015 to 2019, real estate companies experienced low growth rates, with significant declines in profits in 2019. Many factors influence a company's business performance, with capital structure being one of the most important factors that financial managers must pay close attention to. Financial managers need to understand whether to use high or low levels of debt, and in which contexts additional debt should be used in total capital, and vice versa.

Although there have been many studies on business performance worldwide, the results of these studies have not fully aligned with the current situation of real estate companies in Vietnam over the past period. Therefore, this paper aims to analyze the relationship between capital structure and business performance of companies. With the findings of this study, real estate company managers can develop appropriate capital structure strategies to gradually improve business performance.

2. Literature Review

There have been many studies on business performance both globally and in Vietnam.

Shuanglin & Wei (2005) [10] identified the factors determining the profitability of state-owned enterprises in China. Haitham *et al*. (2011) [6] studied the relationship between the cash conversion cycle and business performance of companies in Japan. The research results indicated that the cash conversion cycle is one of the important measures of operational capital management ability.

San & Heng (2011) [9] studied 49 real estate companies listed on the Malaysian stock market from 2005 to 2008, dividing them into three categories: Large, medium, and small-sized companies. The study found that for large companies, profit-to-equity ratio, debt-to-market-value-of-shares, and earnings per share with long-term debt on common stock had a positive relationship, while earnings per share with debt-to-equity ratio had a negative relationship. Only the operating profit margin with long-term debt on common stock had a positive relationship in medium-sized companies, and earnings per share with debt-to-equity ratio had a negative relationship in small companies.

The thesis by Chung (2003) [1] assessed the business performance of small and medium-sized enterprises in Vietnam and proposed solutions to improve the business performance of these companies.

Hoan's thesis (2017) [2] used econometric models to analyze the impact of various factors on the production and business performance of listed real estate companies and proposed solutions to enhance the production and business efficiency of these companies listed on the Vietnamese stock market.

Although there are many studies on business performance, there have been no studies on the relationship between capital structure and business performance of real estate companies from 2015 to the present. Real estate companies play a significant role in Vietnam's economy, and therefore, studying the relationship between capital structure and business performance of these companies to find solutions for optimizing their capital structure is essential.

3. Research results

The capital structure of a company reflects the proportion of different sources of capital within the company. Typically, the capital structure is represented by the debt ratio or the debt-to-equity ratio. Business performance can be measured using various indicators, such as Tobin's Q, the price-to-earnings (P/E) ratio, market value of the company (Phillips & Sipahioglu, 2004; Zeitun & Tian, 2007; Jiraporn & Liu, 2008) [8, 11, 7], or profitability indicators such as return on assets (ROA) and return on equity (ROE) (Abor, 2005 [3]; Cheng, Liu & Chien, 2010 [5]; Ahmad, 2012). However, in general, business performance reflects the relationship between the costs incurred and the profits obtained.

The relationship between capital structure and business performance of listed real estate companies is reflected through the connection between capital structure and return on equity (ROE), as well as the relationship between capital structure and financial risk. Therefore, this paper will explore these two relationships in the context of real estate companies listed on the Vietnamese stock market.

3.1 The Impact of Capital Structure on Return on Equity (ROE)

Based on actual data, it can be observed that listed real estate companies have high and stable debt ratios over the years. These companies can be grouped based on their average debt ratio (Hn) to examine the relationship between capital structure and return on equity (ROE).

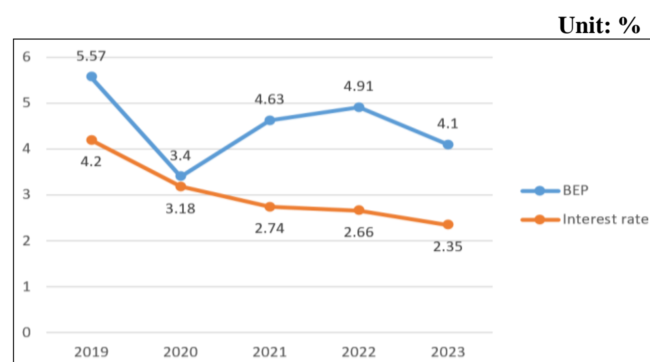
Table 1: Debt ratios and ROE of listed construction industry enterprises

Enterprises group	2019		2020		2021		2022		2023	
	Hn	ROE (%)	Hn	ROE (%)	Hn	ROE (%)	Hn	ROE (%)	Hn	ROE (%)
Group 1 0<Hn<0,3	0,25	3,39	0,28	-10,47	0,27	0,45	0,24	5,91	0,25	4,18
Group 2 0,3<Hn<0,5	0,43	8,64	0,36	12,23	0,39	9,26	0,46	6,93	0,48	3,61
Group 3 0,5<Hn<0,7	0,67	6,64	0,62	5,74	0,63	-1,77	0,72	5,44	0,66	6,82
Group 4 0,7<Hn<0,9	0,85	3,12	0,88	7,29	0,86	9,64	0,82	1,24	0,85	-24,28
Group 5 Hn>0,9	0,95	8,17	0,93	4,85	0,96	19,17	0,85	15,39	0,75	-0,18

Source: Data processing by the author

To study the impact of capital structure on ROE of listed real estate enterprises, we analyze the relationship between the economic return on assets (BEP) and the average loan interest rate of enterprises.

Unit: %



Source: Data processing by the author

Chart 1: Average BEP and average loan interest rate of the listed real estate enterprises

In the last 5 years, listed real estate enterprises have had a relatively low average BEP, the lowest BEP in 2020 is 3.18%. Because the average loan interest rate of businesses is calculated by interest expense on total debt (appropriated capital is considered as loan capital with zero interest rate), even though BEP is low, it is still higher than the average loan interest rate. Among businesses, only in 2020 is the average BEP smaller than the interest rate. In case the average BEP is greater than the average interest rate, the more debt businesses borrow, the more they will amplify the equity profit margin, but it also contains many risks for businesses. Therefore, in terms of using financial leverage to increase equity ratios, businesses have generally achieved their goals. However, chart 1 reflects the average BEP data and interest expenses on average total debt of all enterprises taken in the sample. In fact, there are some individual enterprises with very low BEP but using Using a lot of debt, the more debt you use, not only increases financial risk but also reduces the return on equity.

To see this relationship in more detail, we consider the economic profit rate of each group of businesses.

Table 2: Economic profitability ratios of listed real estate enterprises

Unit: %

Enterprises group	2019	2020	2021	2022	2023
Group 1	6,67	-8,12	2,65	7,29	8,44
Group 2	6,46	8,72	6,76	6,72	4,36
Group 3	6,82	6,83	3,81	4,73	5,35
Group 4	4,41	4,11	5,37	2,79	0,45
Group 5	2,73	1,92	3,77	3,82	1,28

Source: Data processing by the author

Among the groups, Group 2 (0.3 < debt ratio < 0.5) has the highest average economic profitability, while Group 5 (debt ratio > 0.9) has the lowest economic profitability, despite using the highest level of debt. The low operational efficiency makes it difficult for companies in this group to finance their capital needs with internally generated funds from retained earnings. As a result, these companies fall into a vicious cycle: High debt ratio – large financial leverage – declining return on equity – low retained earnings – high debt ratio...

According to the collected data, Group 1 exhibits the highest BEP fluctuation. In the 2019–2020 period, BEP decreased rapidly, reaching very low levels in 2020, but it increased significantly in the subsequent period. By 2023, BEP reached its highest level compared to the other groups. Despite having the highest BEP, this group also has the lowest debt ratio. The low use of debt in this context, while making the company safer, fails to fully leverage the benefits of financial leverage.

Most companies saw an increase in BEP during the 2021–2023 period, indicating that they had more opportunities to improve return on equity through the use of debt.

To assess the impact of capital structure on return on equity, we consider the effect of financial leverage on the groups of companies.

Table 3: Profit before interest and tax (EBIT) and impact level of financial leverage (DFL) of listed real estate companies

Enterprises group		2019	2020	2021	2022	2023
Group 1	EBIT (million VND)	16.211	5.923	13.734	20.195	21.745
	DFL	21,62	1,31	1,25	1,12	1,16
Group 2	EBIT (million VND)	203.514	242.652	271.208	240.419	298.519
	DFL	3,54	2,82	-0,03	5,29	0,67
Group 3	EBIT (million VND)	76.472	73.987	71.250	60.836	57.392
	DFL	11,12	1,78	3,02	4,24	2,22
Group 4	EBIT (million VND)	25.798	21.182	24.237	16.692	15.650
	DFL	2,11	2,83	2,24	5,27	18,95
Group 5	EBIT (million VND)	11.872	8.291	18.151	19.194	8.284
	DFL	4,06	19,18	3,39	5,03	0,92

Source: Data processing by the author

The degree of impact of financial leverage indicates how much the return on equity (ROE) will increase or decrease when earnings before interest and taxes (EBIT) increase or decrease by 1%. The use of financial leverage (DFL) among real estate companies is relatively high and shows significant fluctuations. All company groups, over the years, have a DFL greater than 1 (except for Group 2 in 2021, which had a DFL < 0), indicating that earnings before interest and taxes (EBIT) are higher than the interest expenses for the period. In general, EBIT for the company groups tends to decrease from 2019 to 2021 and increase from 2021 to 2023, except for Group 3, which showed opposite fluctuations compared to the other groups. The use of financial leverage is like a double-edged sword: When the leverage is high, if EBIT decreases, ROE declines sharply, but if EBIT increases, ROE also increases significantly. For example, Group 1 in 2019 had a very high DFL, but EBIT dropped in 2020, leading to a sharp decline in ROE. On the other hand, Group 5 in 2020 also had a high DFL, but after that, EBIT increased, and so did ROE. Therefore, most companies adjusting the level of financial leverage in 2020-2021 to increase ROE was a reasonable strategy.

3.2 The impact of capital structure on the financial risk of enterprises

The impact of capital structure on the financial risk of listed real estate enterprises is studied on the impact of capital structure on financial balance, financial autonomy and solvency of these companies. This enterprise.

- The impact of capital structure on financial balance.

Table 4: Net working capital sources of listed real estate enterprises

Unit: Million VND

Enterprises group	2019	2020	2021	2022	2023
Group 1	42.094	38.582	37.183	40.038	72.099
Group 2	343.702	276.501	329.673	332.156	301.682
Group 3	76.582	91.874	117.935	60.474	57.936
Group 4	80.685	81.586	57.945	85.495	36.964
Group 5	52.475	108.906	111.296	40.362	56.486

Source: Data processing by the author

Enterprises have net working capital (NWC) greater than 0, which means that enterprises use part of their long-term capital to finance short-term assets. This is a highly secure, low-risk financing model. Among them, group 2 enterprises have the highest NWC and tend to increase over the years, demonstrating high financial stability and low financial risk. Enterprises in group 5 have strong fluctuations in NWC, increasing and decreasing at a high speed but still ensuring the principle of financial balance. However, group 5 businesses need to be careful because if the rate of decrease is so high, it can lead to a negative NWC, which will put the business under short-term payment pressure, lose its ability to pay, and have a high risk of bankruptcy., high financial risk.

- The impact of capital structure on financial autonomy.

Table 5: Average debt coverage ratio of listed real estate enterprises

Enterprises group	2019	2020	2021	2022	2023
Group 1	3,47	3,39	3,23	3,44	2,83
Group 2	1,86	1,65	1,42	1,23	1,25
Group 3	0,80	0,33	0,35	0,47	0,45
Group 4	0,24	0,20	0,21	0,22	0,18
Group 5	0,09	0,10	0,09	0,18	0,29

Source: Data processing by the author

Through the debt security ratio, it can be seen that in general, the debt security level of businesses is low, showing a high level of risk. However, it is necessary to consider the solvency ratio to have a clearer view of the business's risks.

Table 6: Solvency ratio of listed real estate enterprises

Enterprises group		2019	2020	2021	2022	2023
Group 1	Cash ratio	0,08	0,12	0,13	0,12	0,14
	Quick ratio	0,82	0,89	0,94	1,03	1,29
	Current Ratio	2,01	2,05	1,37	1,44	2,95
	Interest coverage ratio	346,74	451,03	431,05	425,29	423,34
Group 2	Cash ratio	0,12	0,11	0,09	0,08	0,14
	Quick ratio	0,79	1,03	1,03	1,01	1,07
	Current Ratio	1,73	1,85	1,94	1,51	1,15
	Interest coverage ratio	11,46	31,92	20,90	32,57	38,20
Group 3	Cash ratio	0,13	0,12	0,17	0,15	0,13
	Quick ratio	1,05	1,01	1,18	0,94	0,78
	Current Ratio	1,21	1,27	1,29	1,14	1,17
	Interest coverage ratio	1,48	1,77	1,29	1,78	2,15
Group 4	Cash ratio	0,06	0,07	0,13	0,08	0,11
	Quick ratio	0,76	0,75	0,67	0,67	0,89
	Current Ratio	1,11	1,08	1,16	1,17	1,12
	Interest coverage ratio	1,36	1,78	2,84	1,13	1,07
Group 5	Cash ratio	0,12	0,13	0,14	0,13	0,12
	Quick ratio	0,84	0,92	0,92	0,88	0,90
	Current Ratio	1,26	1,39	1,44	1,10	1,18
	Interest coverage ratio	33,24	5,57	7,09	4,98	2,62

Source: Data processing by the author

The quick ratio of companies is at a safe level, with all companies having a quick ratio greater than 1, and there are not significant fluctuations over the years. Companies in Group 1 have a gradually decreasing ability to pay but remain at a high level. Their ability to pay interest is also high, especially for Group 1 companies, which borrow less, resulting in lower interest payments. These companies have a very high ability to pay interest. The other groups still have a debt-to-interest coverage ratio greater than 1, but lower than Group 1. A high ability to pay interest is an advantage, facilitating real estate companies in borrowing funds from banks and other financial institutions.

Among the five groups, only Group 4 has a quick ratio of less than 1, while the quick ratios of the other groups are mostly greater than 1 or close to 1, indicating that real estate companies generally have the ability to pay off short-term debts quickly.

However, cash ratio of real estate companies is relatively low, with the average quick ratio of companies over the years ranging from 0,06 to 0,14. Some companies have very low quick ratios, with one company in 2020 having a cash ratio of only 0,005. Maintaining little cash exposes these companies to high risks for immediate payments.

4. Conclusion and Recommendations

Based on the analysis above, several recommendations can be made to help real estate companies improve their capital structure as follows:

Real estate companies need to increase profitability. Statistical data shows that companies with lower earnings before interest and taxes (EBIT) tend to use more debt. If a company allows its average interest rate on borrowed funds to exceed its profitability before interest and taxes, it will not be able to fully leverage financial leverage. In this case, excessive borrowing not only increases financial risk but also reduces the profitability of equity.

Companies need to focus on financial risk management. Especially when the debt-to-equity ratio of real estate companies is very high, effective risk management is essential. If a company does not achieve the expected profit levels, the interest and principal payments on the debt will become a heavy burden.

Enhance payment capacity. To prevent the risk of insolvency due to a high debt-to-equity ratio, companies need to regularly analyze their financial situation to identify the risks of insolvency, create detailed short-term cash flow plans, and increase their ability to generate cash to ensure payment capacity.

Thus, although business performance is always the goal for companies in general, and real estate companies in particular, in recent years, real estate companies have not paid enough attention to capital structure management to control financial risks and enhance business performance. This paper provides useful information for real estate companies to pay more attention to capital structure planning, helping companies make informed decisions about capital structure in their specific conditions.

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