

Empirical Research on the Impact of the Financial Structure on Corporate Performance of Real Estate Listed Firms in China

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Abstract: The industry of real estate soars so rapidly that has become pillar industry in China recently. It is common to operate with liabilities in real estate industry, so researching the relationship between financing structure and corporate performance of real estate firms is important to the long-term development of the industry. The paper uses 135 listed real estate companies as samples, conducts an empirical research on the link of financial structure and corporate performance by the date from 2009 to 2016. The result shows that the state-owned share proportion has positive impact on corporate performance, equity multiplier has negative influence and current liability rate promotes corporate performance. The real estate firms should choose appropriate debt ratio and term structure of liability by their own situation and pay attention to the risk to improve their future revenue. In addition, national departments concerned not only strengthen the supervision of the earnings of the capital belong to the state also implement the policy of reduction of state-owned shares energetically to make market play an active role.

1. Introduction

Capital is the basis for the company's production and operation activities, generally derived from the company's financing activities. Enterprise financing is nothing but debt and stock issuance. When making financing decisions, enterprises will definitely consider the choice of financing methods and the distribution of proportions, that is, the issue of financing structure. The financing structure determines the capital cost of the company to a certain extent, which is precisely the core indicator to measure the value of the company, so it will have an impact on the value of the company. At the same time, the direction of the company's capital is related to the financing structure, and the operation of funds is the basis of corporate profits, so the financing structure is of great significance to the company's operating performance.

In recent years, China's marketization process has been rapidly advanced, its capital market has shown great development potential, financing methods are also increasing, and thus the impact of financing decision-making on corporate development has become more and more significant. Studying the relationship between financing structure and operating performance of Listed Companies in China has guiding significance for the development of enterprises, it can help managers to choose the most suitable financing structure for the development mode of enterprises, use funds reasonably and efficiently, promote the development and growth of enterprises, and thus promote the better and faster development of China's economy. However, for different industries, their nature and development potential are different, and the financing structure has its own characteristics, correspondingly, the impact on business performance is not the same. This paper takes the real estate industry as the research object.

The real estate industry is closely related to the lives of residents. Nowadays, house prices continue to rise, and the proportion of home purchases in general household expenditures is growing. Attracted by huge profits, many developers have entered the real estate industry one after another, but the large amount of funds needed for the development of this industry is generally provided by financial institutions. If the company is unable to repay the debt, it will bring huge risks to the institutions providing capital. At the same time, the real estate industry has a great correlation

with the building materials industry, the decoration industry, the steel industry and the labor market. For example, the collapse of Japan's real estate economic bubble in the last century caused many years of depression and the global economic crisis triggered by US real estate subprime mortgages at the beginning of this century, all of these tell us that once the real estate industry is at risk, there will be a heavy blow to the national economy. The industry is necessary for research. At the same time, real estate companies that can be listed tend to be stronger and larger, and thus more representative. In the process of researching real estate listed companies, we can provide some reference opinions for relevant operators through empirical conclusions to promote the steady and orderly development of the real estate industry.

2. Introduction of References

Domestic and foreign scholars have carried out a sea of research on the relationship between the company's financing structure and its operating performance. Modigliani and Miller (1958) proposed the MM theory that does not consider income tax, and concluded that the value of a company is not affected by the financing structure under the assumption of perfect market. The revised MM theorem includes income tax, and believes that under the effect of tax shield, the company value is related to the financing structure. Yean Zhou (1999) explored the relationship between ownership structure and the return on net assets and concluded that legal person shares and state-owned shares both had significant positive effects on return on net assets. Jianguo liu (2009) used the return on total assets as an indicator to measure the performance of a company. He believed that the performance of listed companies in the real estate industry was negatively correlated with the equity financing rate, and the distribution of corporate debt financing was unreasonable, thus there was a large risk of debt repayment. Guanggui Ran (2011) used the ROE to represent the performance of the company and the panel data model demonstrated that the increase of the asset-liability ratio will lead to the decline of the company's performance, the higher the concentration of corporate equity, the more active participation of large shareholders in corporate governance, thus improving corporate performance. Jianghuai Ling (2011) used the data of listed companies in Guangdong Province and found that there is an inverted U-shaped relationship between debt level and business performance. Yanyan Zhang (2018) takes agricultural listed companies as the research object, and believes that the proportion of circulating shares is negatively correlated with business performance, and the simpler their main business composition, the better their operating performance.

3. Theoretical Analysis and Research Hypothesis

The revised MM theory holds that debt-operated enterprises can bring certain tax-saving effects and improve the value of the company because of interest expenses can reduce tax. The agency cost theory believes that the increase of liabilities will make the goal of shareholders and management tend to be the same, the conflict of interest between them will be alleviated to a certain extent, and the corresponding equity agency costs will also be reduced. However, with the increase of liabilities, the proportion of interest expenditure will become higher and higher, and enterprises will probably face greater bankruptcy risk because of the fact that they are likely to be unable to make ends meet, which may reduce the value of the company. Equity multiplier is the ratio of assets to equity, that is, how many assets can be leveraged by one unit of owner's equity, which reflects the level of financial leverage used by the company. The larger the value, the greater the role of debt in the development of the enterprise, the higher the dependence of the enterprise on it.

According to the sample companies we collected, the average asset-liability ratio is 64%, and the largest is even more than 100%. These data show that the debt ratio of China's real estate listed companies is generally high. According to the trade-off theory and agency cost theory, we think that such a high debt ratio will bring greater bankruptcy risk to the company, which is not conducive to the improvement of the company's business performance. Therefore, the equity multiplier has a negative correlation with it. Based on this, we present the first research hypothesis of this paper.

H1: The equity multiplier is negatively correlated with the company's operating performance, and an increase in the equity multiplier will result in a decline in performance.

The main purpose of a company's operations is to make profits and raise its stock price, but the state-owned enterprises are not only that. Its existence is not only for profit, but more importantly, it bears the corresponding social responsibilities, perfects the development pattern of China's industry, and enables those areas that private enterprises do not want or have the ability to enter, even if they are losing money.

For the state-owned enterprises, in addition to the existence of equity and debt agency costs, there are conflicts of interest between government officials and shareholders, which makes the principal-agent relationship more complicated. On the one hand, some government officials will assign political tasks to enterprises in order to ensure the good operation of regional economy during their term of office or to complete the work assigned by their superiors. While these projects often require a large amount of capital at beginning and the return is slow, which is not conducive to the company's profit. On the other hand, the State-owned Assets Administration, as the agent of state equity, can not cover all aspects of all the companies in which it holds shares, and its supervisory ability is much lower than that of the general shareholders. Therefore, this paper proposes the second hypothesis.

H2: There is a negative correlation between the proportion of state-owned shares and the company's operating performance. The increase of the proportion of state-owned shares will lead to the decline of the company's operating performance.

Current liabilities have a short maturity and generally cannot be renewed. They must be repaid at maturity, which will bring certain liquidity risks to the company. Based on risk awareness, shareholders generally do not take a radical approach (putting short-term funds into high-risk projects for excess returns); liquidity liabilities also increase the pressure on executives to restrain them from using the company's free cash flow at will. The goal of managers and shareholders converge and the cost of equity agency is reduced. While for the long-term liabilities, shareholders can invest in projects with higher risk or longer maturity, as long as they can repay them in the long future; even if they cannot repay them at maturity, they can choose to extend, which is less stressful for companies than short-term liabilities. Therefore, due to the pressure of short-term interest payment, current liabilities make strong constraints on the shareholders and operators of the company, which can prevent risks and improve the efficiency of capital and thus promote company's operating performance. Based on the above analysis, the third hypothesis of this paper is proposed.

H3: There is a positive correlation between the current debt ratio and the company's operating performance. The company's operating performance increases as the current debt ratio increases.

4. Research and Design

4.1. Samples and Data Sources.

This paper selects real estate listed companies in the Shanghai and Shenzhen markets, excludes ST and missing data companies, we finally gets 135 samples and the time ranges from 2009 to 2016, all the data come from CSMAR, a database of listed companies in China.

4.2. Variable Selections.

4.2.1. Explained variable.

According to previous studies, this paper selects the company's ROE, the rate of return on common stockholders' equity, as the explanatory variable of the model. Investors generally measure business performance by examining the company's profitability, and the most important profit indicator is undoubtedly the core indicator of DuPont's analysis system - ROE, which is even set as the standard for assessing managers' performance by shareholders. According to Dupont's identity, ROE is the product of equity multiplier reflecting the level of corporate liabilities, profit margin

reflecting profitability and total asset turnover reflecting asset management ability. It can be seen that ROE is comprehensive and can roughly measure the operating performance of enterprises.

4.2.2. Explanatory variables.

This paper selects the proportion of state-owned shares, equity multiplier and current liability ratio as the main factors affecting the company's financing structure. The proportion of state-owned shares reflects the company's ownership structure. The equity multiplier represents the extent to which the company uses financial leverage, while the current debt ratio reflects the maturity structure of the company's liabilities.

4.2.3. Control variable.

In addition to the above explanatory variables, there are other factors that affect the company's operating performance. To better explain the relationship between financing structure and business performance, we choose the company size as the control variable of this model. Variable definitions are shown in Table 1.

Table 1 Variable Definitions Table

Variables	Name	Symbol	Formula
Explained variable	Rate of return on common stockholders' equity	ROE	Net profit / equity
Explanatory variables	Equity multiplier	EM	Total assets/equity
	proportion of state-owned shares	POS	State-owned shares / total shares of the company
	Current liability ratio	CLR	current liabilities / liabilities
Control variables	company size	SIZE	ln(Total assets)

4.3. Model Design.

In this paper, a multiple linear regression model is used as (1), where α is a constant term, β_1 、 β_2 、 β_3 、 β_4 are partial regression coefficients, $\varepsilon_{i,t}$ is a random error term; i represents each different individual while t represents time.

$$ROE = \alpha + \beta_1 EM_{i,t} + \beta_2 POS_{i,t} + \beta_3 CLR_{i,t} + \beta_4 SIZE_{i,t} + \varepsilon_{i,t} \quad (1)$$

5. Empirical Analysis

5.1. Descriptive Statistics of Variables.

According to Table 2, we can learn that the listed real estate companies are large in scale, with high profitability and low proportion of state-owned shares; the equity multiplier is large, which reflects the industry depend more on debt; and the current liabilities ratio is high, so there is a greater risk of repayment.

Table 2 Descriptive statistics of variables

Variable	Obs	Mean	Std.Dev.	Min	Max
ROE	1080	0.819514	0.1266503	-1.364905	1.895834
EM	1080	3.53055	2.145418	-10.26823	24.59078
POS	1080	0.0606366	0.1618532	0	0.7500507
CLR	1080	0.7428397	0.182454	0.10293	1
SIZE	1080	23.01004	1.482995	19.7818933	27.96173

5.2. Analysis of Regression Results.

The regression results show that there is a highly negative correlation between equity multiplier and ROE, which is consistent with the hypothesis 1 of this paper. That is to say, with the increase of

the equity multiplier, the company's financial leverage is getting bigger and bigger, ROE of the company is falling, which means the company's performance is getting worse.

However, the proportion of state-owned shares is highly positively correlated with the return on net assets, which is inconsistent with the hypothesis 2 of this paper. The main reason may be that China's capital market is still not perfect enough, and some non-market factors are likely to determine the success of a company, which is particularly significant in the real estate industry. In China, land is owned by the state, if the real estate listed companies have the background of state-owned, they may use land at a lower price, while others can only get land at a higher price through competitive bidding. With the continuous warming of China's real estate economy, there are more and more real estate developers, and the desire to develop commercial housing is intensifying, which makes the demand for land growing more quickly. However, as a non-renewable resources, the price of land will only continue to rise. Once given preferential policies, real estate listed companies can save a lot of costs, improve revenue and increase its operating performance. In addition, most of funds of real estate companies come from banks that trust real estate companies with state capital more, which will help them get financial support, seize investment opportunities timely and improve economic efficiency. But if in the perfect capital market, where the market play a main role in resource allocation, every real estate listed company must obtain land through free competition, which may reduce this positive effect.

The ratio of current liabilities is highly positively correlated with ROE, which is consistent with the hypothesis 3. That is to say, with the increasing ratio of current liabilities, it is more and more binding on the company to use funds, which makes the shareholders and managers more cautious in making investment decisions, thus improving the company's operating performance.

Table 3 Regression results

	Coef.	Robust Std.Err.	t	P> t
EM	-0.0141586	0.0069476	-2.04	0.044
POS	0.048156	0.022031	2.19	0.031
CLR	0.0526989	0.0262431	2.01	0.047
SIZE	0.0239967	0.004286	5.60	0.000
_CONS	-0.4622937	0.0895635	-5.16	0.000

6. Conclusions and Suggestions

Through the multiple regression analysis of panel data, the paper concludes that the proportion of state-owned shares and the current debt ratio are both positively related to the company's operating performance, while the effect of equity multiplier is negative. Through the above conclusions, this paper proposes the following suggestions:

Firstly, the empirical results show that there is a negative relationship between corporate performance and liabilities; for the real estate industry with a high asset-liability ratio, the stability of its capital chain is easily affected by the national macro-policy regulation. Once the policy is tightened and the market interest rate rises, if some enterprises need to borrow new debt to repay old debt, the cost they face will rise sharply. Excessive debt will also cause more interest expenditure, if the company use most of its cash flow to repay interest, they may lose a lot of good investment opportunities, which is not conducive to the sustained development of a enterprise. Therefore, entrepreneurs should carefully choose the form of financing according to the specific use of the capital, maintain a reasonable debt ratio, and effectively control risks.

Secondly, the increase of current liabilities ratio will augment the pressure of short-term repayment and increase the liquidity risk of enterprises, which may make enterprises getting into trouble easier. To a certain extent, current debts will restrain the behaviors of shareholders and managers, prompt them to make prudent decisions, use funds scientifically and efficiently, thereby improving management performance; but improving the current debt ratio blindly will increase the risk of bankruptcy. Therefore, managers should maintain a reasonable current debt ratio and exert

its positive effects as far as possible. At the same time, the executive should decide the term structure of liability carefully and make the mismatch of the time limits.

Finally, the company with large size can improve the company's ability to withstand risks, therefore, real estate listed companies should continue to expand their scale while developing steadily. At the same time, the government should reduce the holding of shares of real estate listed companies, give a full play of the market, create a relatively free market economy, and thus promote the healthy development of the industry.

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