Association between Capital Structure & Profitability: A Study of Real Estate Companies in India

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Abstract

Capital structure decision is an important decision in the domain of finance manager as it is supposed to affect the profitability of business undertaking. A wrong decision in this regards will not only affect the ability of the business to earn profit, but also the ability of the business to pay lender on time. Real estate of the country is in the midst of number of policies changes like demonetization, passage of RERA Act, implementation of GST and approval of the recommendation of 7th pay commission. Each of these policies has significant influence on the performance of real estate companies in India. The article attempts to study how debt equity mix affect the profitability of real estate companies in India by taking into account 8 sample companies for five financial years from 2011-12 to 2015-16. Profitability is measured by return on capital employed, return on equity and net profit margin ratios whereas capital is measured by debt equity and debt to total fund ratio.

Keywords: Profitability, capital structure, return on capital employed, return on equity, leverage etc.

Introduction

The Indian economy is currently going through a phase which can be termed as the "productive growth phase" characterized as a period of continuing growth while maintaining the macroeconomic stability. This sets the stage for a sustained growth cycle in the time to come. The real GDP growth is expected to rise to 7.9 per cent by December, 2017. This will be driven by favorable external demand, improving corporate balance sheets and private capex recovery. According to the research report of Morgan Stanley, growth is likely to remain higher, accelerating by almost 1 per cent point over the next three quarters. The implementation of GST is expected to lead to efficiency gains through better allocation of factors of production. The stock market is also expected to trend upwards as is already evident from the sensex movement.

Ministry of Finance estimates the growth rate of the industrial sector to be moderate to 5.2 per cent in 2016-17 as compared to 7.4 per cent in the previous fiscal year. The government's efforts to boost infrastructure and urban development, such as the addition of 25 million homes, 40 million dwelling units and 98 smart cities by 2022, has further enhanced the growth prospects of the real estate and related services sector.

Real estate companies have a very significant role to play in the midst of the opportunities available to the sector. The real estate sector is one of the most recognized sectors across world. This is the second largest employer after agriculture and is expected to grow at 30 per cent over the next 10 to 15 years. It consists of four sub sectors - housing, retail, hospitality, and commercial. The growth of the corporate environment and the demand for office space as well as urban and semi-urban accommodations provides boost to real estate sector. The construction industry currently ranks third among the 14 major sectors in terms of direct, indirect and induced effects on all the sectors of the economy. It is expected that Indian real estate market will touch US$ 180 billion by 2020. The housing sector alone contributes 5-6 per cent to the GDP of the country. The Indian real estate sector has registered high growth in recent years with the ever increasing rise in the demand for office as well as residential spaces.

Profitability of the firm is an important key success factor. When the growth potentials are high, it is obvious that real estate companies will have opportunities to earn higher profits and grow large. But profitability of firm is affected by number of factors. One of those important factors is the capital structure of the firm, i.e. how the long term capital requirements of the firm is financed. To meet long term capital requirement, firms rely on either owner's contribution or lender's money. Owner's contribution is capital owned capital and lender's contribution is called debt capital. Debt capital brings a fixed obligation to the firm in the form of payment of interest and repayment of capital. It increases the financial risk of the business. Owned capital does not have any such risk as it does not have fixed obligation to pay dividend. But the advantage with debt capital is that it will help firms to earn more profit by using lender's money which is comparatively cheaper. The study aims to find out the association between capital structure and profitability of real estate companies operating in India.

Literature Review

Lalith, P.S (1999), who investigated the capital structure of Srilankan companies, found that the use of long-term debt is relatively low in Srilankan companies. The average leverage in Sri Lanka is estimated as 13.5%, long term debt to equity ratio is 24% while the total debt to equity ratio is 104.1%. This evidence suggested that the use of debt financing in Sri Lanka is significantly low in comparison to G7 markets.

Capital structure means the composition of debt and equity which is required to finance assets of a firm. The capital structure decision is very important for a firm as it is related to the ability of the firm to meet the expectations of its various stakeholders. The management of a company should always try to develop a capital structure that would l beneficial to the equity shareholders in particular and to the other groups such as employees, customers, creditors and society in general (Pandey, 2009)

The works carried out by different researchers like Singh and Hamid (1992), Agarwal (1999), Majumdar (1996) and Kakani (1999) came out with the findings which are just opposite to the findings of the firms in the developed countries. These studies on Indian firms observed that firms depend more heavily on the external sources in India than on the internal sources. They are highly indebted because the capital market in India was not mature. So firms find it difficult to raise the funds from the capital market by issuing the equities. Therefore the debt equity ratio is very high.

The study made by Singh and Hamid (1992) reported somewhat unexpected results. Their findings suggested that the companies in developing countries, in general, rely very heavily on external funds and on new issues of shares to finance their growth of net assets. These results are surprising as they are quite opposite to what most economists would accept. Hence, the theories of capital structure should be tested before we accept it in the context of developing countries like India. Similarly, Singh (1995) tried to compare systematically the pattern and structure of corporate finance found in developing countries with that of the advanced economies. He found that companies in small developed countries are unlikely to have access to the debt market either. He also observed that the degree of external financing as well as equity financing for the companies in top developing countries are very high.

It is argued by most that the stock market in well developed may be able to offer financial services of a different kind than given by the banking system and may therefore provide a different kind of impetus to investment and growth, again compared to what provided by the development of the banking systems . Agarwal (1996) observed that the stock market has come to play an important role in providing an alternative source of long-term finance to financially strong and better managed companies at a cheaper price and to diversify risk.

Myers (1984) segregated the contemporary views on capital structure into two theoretical parts, namely, Static Trade-off framework and Pecking Order framework. Under Static Trade-off theory, a firm sets up a target-debt ratio on the basis of the trade-off between interest tax shield and cost of financial distress. This theory also considers the agency conflicts. The Agency theory states that debt helps in solving problems due to the firm's excess cash flow. In the Pecking order theory, a firm's preference is always for internal to external financing and debt to equity, if it issues securities. There is no targeted debt-ratio in the pure pecking order. Myers and Majluf (1984) pointed out that a firm will be reluctant to new equity issues mainly due to asymmetric information between the management and the stockholders.

Harris and Rajiv (1991) argued that leverage increases with fixed assets, non-debt tax shield, investment opportunities and firm size, and decreases with volatility, advertising expenditure, profitability and uniqueness of the product. Kakani (1999) pointed out that profitability and capital intensity are negatively associated with leverage, but observed no significance of firms' diversification strategy and size in deciding the leverage level of the firm.

Tiwari, A. K., & Krishnankutty, R. (2014) observed that there is a negative and statistically significant relationship between non-debt tax shields and size and debt and there is a positive and statistically significant relationship between growth and ratio of fixed assets to total assets

Allen, D. E., Nilapornkul, N., & Powell, R. J. (2013) observed that for Thai banks, nonperforming loans and risk weighted assets are key factor on book leverage; while GDP growth is only a major factor for market leverage.

Objective

The study has following objectives:

- To find out the association that exists between capital structure and profitability.
- To find out an optimal capital for best financial performance
- To identify ways to increase profitability by adopting a better strategic capital structure framework

Research Methodology

Sample: The present study is descriptive and analytical in nature. The sample consists of eight real estate companies based on market capitalization. The sample companies are DLF, Delta Corporation, Obroi Realty, Godrej Property, Prestige Estate, Indiabulls Real, Phoenix Mills, and PNC Infratech

Key Variable: Profitability is measured by three important ratios, namely net profit ratio, return on capital employed and return on equity. Debt to Equity ratio and debit to total fund ratio are used as measure of capital structure.

Time Period: The period of study is from 2011-12 to 2015-16.

Source of Data: The data on key variables is compiled from the annual reports of the respective banks.

Hypotheses of The Study

H01: There is no significant association between debt to equity and net profit ratio

H02: There is no significant association between debt to equity and return on capital employed ratio.

H03: There is no significant association between debt to equity and return on equity ratio.

H04: There is no significant association between debt to total fund and net profit ratio

H05: There is no significant association between debt to total fund and return on capital employed ratio.

H06: There is no significant association between debt to total fund and return on equity ratio.

Statistical Tools: The quantitative analysis includes both descriptive and inferential statistics. Descriptive statistics are to describe and summarize the behavior of the variable in the study. Inferential statistics are used to generalize results based on the sample. In order to test research hypothesis, correction analysis is applied. The average of five years data is considered for the purpose of correctional analysis. It is applied to identify the strength of association between capital structure and profitability ratios and identify where the association is significance or not. If profitability is taken as a dependent variable and capital structure as independent variable, then the equation is as below:

$P = f(CS)$

Where,

P = Profitability measured by net profit ratio, return on capital employed and return on equity

CS = Capital Structure measured by Debt to Equity ratio and debit to total fund ratio.

Limitations of the study: The following are some of the limitations of the study:

- The study takes into account only 8 top real estate companies.
- The analysis of results is based on the data of 5 financial years only.
- Only few financial ratios are considered.

Research Implications: Profit is necessary not only for the growth of the business but also for its survival. There are a number of factors like ability to use fixed assets to optimum extent, efficiency of management team, economic growth, market demand, debt-equity mix etc. which influences the ability of the firms to earn profit. This paper attempts to examine one such factor namely debt-equity mix and examines how it is likely affect the earning capacity of the business of real estate companies in India.

Data Analysis and Discussion

The data on five key variables under consideration for the purpose of study is collected for the last five financial years from 2011-12 to 2015-16 and average values are presented as below:

Table 1

Sample Companies	Average of five years (2011-12-2015-16)				
	Debt Equity Ratio	Debt to total Fund ratio	RoCE	NP Ratio	RoE
DLF	0.65	0.36	3.14	29.23	4.93
Delta Corporation	0.06	0.05	3.46	16.04	3.73
Obroi Realty	0.02	0.02	11.42	50.29	11.65
Godrej Property	0.10	0.08	5.99	7.34	7.06
Prestige Estate	0.63	0.11	8.33	16.71	9.39
Indiabulls Real	0.28	0.17	1.54	59.09	1.75
Phoenix Mills	0.23	0.19	5.18	43.28	6.39
PNC Infratech	0.35	0.21	10.93	7.26	13.98

From the above table, it can be seen that average debit equity ratio is highest in case of DLF. The company borrows 0.65 times of owner's money whereas the least debt equity ratio is found in case of Obroi Realty. It borrows only 2% of owned capital. Similarly, when it comes to use of highest debt capital in relation to total fund invested in the business, it is the DLF which is ahead of other sample companies. So, DLF makes maximum use of borrowed money among the sample companies. Now, when it comes to earnings of the companies, return on capital employed, net profit margins are highest in case of Obroi Realty which has least amount of debt capital. But return on equity is second highest for Obroi Realty only after PNC Infratech. RoCE and ROE are on lower side for DLF. Net profit margins are good for the company. As loan capital is cheaper for the firms, they help to earn higher return for equity shareholders. But it is observed that firm with higher usage of loan capital has generated lower return for equity shareholders whereas firms with lesser usage of loan capital fetched higher return. Now to assess what kind of influence capital structure has on the profitability of the firms, the following correlation analysis can be referred:

Table 2

Correlations						
Variables		**Debt Equity Ratio**	**Debt to total Fund ratio**	**RoCE**	**NP Ratio**	**RoE**
Debt Equity Ratio	Pearson Correlation	1	.724*	-.116	-.152	.009
	Sig. (2-tailed)		.042	.784	.719	.984
	N	8	8	8	8	8
Debt to total Fund ratio	Pearson Correlation	.724*	1	-.347	.029	-.166
	Sig. (2-tailed)	.042		.400	.945	.695
	N	8	8	8	8	8
RoCE	Pearson Correlation	-.116	-.347	1	-.259	.976**
	Sig. (2-tailed)	.784	.400		.536	.000
	N	8	8	8	8	8
NP Ratio	Pearson Correlation	-.152	.029	-.259	1	-.359
	Sig. (2-tailed)	.719	.945	.536		.382
	N	8	8	8	8	8
RoE	Pearson Correlation	.009	-.166	.976**	-.359	1
	Sig. (2-tailed)	.984	.695	.000	.382	
	N	8	8	8	8	8
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

From the above table, it can be seen that debt to equity is negatively correlated with RoCE and NP margin and positively correlated with return on equity. This means with the increase in the proportion of debt in relation to equity, return on capital employed as well as net profit margin reduced but there will be an increase return to equity shareholders. But the correlation was not found statistically significant at both 1% and 5%. Hence the null Hypothesis H01, H02 and H03 are accepted. Similarly, debt to total fund also found to have negative correlation with RoCE and RoE but positively correlated with NP margin. In this case also, the correlation was not found statistically significant. Hence, null hypothesis H04, H05 and H06 are accepted.

Now the question comes to the mind is whether there exist anything called optimum or best capital structure for companies. From a company's point of view, if any particular combination of debt and equity can increase return for equity shareholder, then it is desirable. Hence, there certainly exists something called optimum capital structure. If firms have profitable projects to explore, then the strategy should be make more use of loan capital and earn higher return for equity shareholders. But this will increase the financial risk of the firms to a great extent. Financial risk of the firms is measured by the firm's fixed obligation to service debt. Higher the uses of debt capital, higher would be the obligation on part of the companies. Hence balancing between the two components i.e, financial risk and profitability is something which needs careful attention of the management.

Conclusion

Our analysis of date of sample companies for last five financial years have shown that though there exist a association between capital structure and profitability of real estate companies in India, both positive and negative, it was not found to be statically significant. It indicates that there are other more important factors other than capital structure which has greater influence on the profit earning capacity of the business enterprises. There are various factors which influences the optimum debt-equity mix for firms. Profitability has not found to be the one of the most significant factors. So, the optimum capital structure depends on other factors like ability to borrow, willingness to take financial risk, tax implications, reputation of the firms in market etc. Now, to improve profitability, capital structure may have some role, but not very significant one.

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