

A STUDY OF RELATIONSHIP BETWEEN FINANCIAL LEVERAGE AND PROFITABILITY IN INDIAN STEEL INDUSTRY

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ABSTRACT

Financial leverage refers to the use of debt capital in the total capital structure of a business concern. This study examined the relationship between financial leverage and profitability in Indian Steel Industry. Two leading steel manufacturing companies- Steel Authority of India Limited (SAIL) and Tata Steel Limited- were selected for the study purpose. This study used secondary sources of information such as Annual Reports of selected companies. It was found in this study that there was a highly negative correlation between financial leverage and profitability in Indian Steel Industry. Hence, Indian Steel Industry needs to reduce its debt capital in order to increase its profitability.

KEYWORDS: *Financial Leverage, Profitability, Debt-Equity Ratio, Earnings per Share*

INTRODUCTION

Financial leverage refers to the use of debt capital in the total capital structure in order to magnify the return on equity shares. Debt capital carries a fixed cost on it, called interest. So, financial leverage can be favorable only when the cost of debt capital is less than the return on investment for a company. As Indian Steel Industry is a capital intensive industry, so, it is very essential to study the relationship between financial leverage and profitability in this Industry.

Elangkumaran. P (2013) investigated the impact of leverage on earnings and share price of listed companies on Colombo Stock Exchange (CSE) in Sri Lanka. He found that the fixed operating expenses and the financing mix decisions of the firm are not significantly impact the earning capacity of the listed companies in CSE^[1]. In an another research paper, Franklin John.S (2011) found that the Indian pharmaceutical Companies employed substantial amount of debt as it was evident from debt-equity ratio as well as total debt to total assets ratio. He also indicated that the cash flow and interest coverage are negatively associated with leverage^[2]. Dr. E. B. Khedkar (2015) got the result that the degree of financial leverage was positively correlated with the Return on Investment and statistically not significant in Dr. Reddy's Laboratories^[3]. Syed Shah Fasih Ur Rehman (2013), in his paper, found that Listed Sugar Companies of Pakistan had the positive relationship between debt-equity ratio and return on asset and sales growth, and the negative relationship between debt-equity ratio and earnings per share, net profit margin and return on equity^[4]. V. A. Subramaniam (2013) analyzed the banking industry of Sri Lanka and found that of listed banks showed that debt equity ratio was positively associated with all profitability ratios such as Return on equity, Return on capitalemployed and Net interest margin. He also found that total debt was significant to determine the return on capital employed in the banking industry of Sri Lanka^[5].

The objective of this study is to find the association between financial leverage and profitability in Indian Steel Industry. For this purpose degree of correlation between Debt-Equity ratio and Earnings per share is found out for two leading steel manufacturing companies, i.e., SAIL and Tata Steel Limited.

The contribution of the paper is that, it will help the professionals, scholars, students and general readers to understand the relationship between financial leverage and profitability in Indian Steel Industry.

MATERIALS AND METHODS

This paper is a quantitative research based on secondary source of data. The study covers the period of 5 years starting from the financial year 2012-2013 to 2016-2017. For the study, two Indian steel companies have been selected - Steel Authority of India Limited (SAIL) and Tata Steel Limited. In this study, the correlation analysis has been used to analyze the association between selected variables.

Financial Leverage

Financial leverage refers to the use of debt capital in the total capital structure in order to magnify the return on equity shares. In this study, financial leverage has been defined as the Debt-Equity Ratio, i.e., total debt divided by shareholders' equity.

Earnings per Share (EPS)

EPS refers to the earnings available for each equity shareholder after meeting all expenses from the earnings. EPS is calculated as Net Income after Tax & Distribution on Hybrid Perpetual Securities divided by Average Outstanding Common shares in this study.

Indian Steel Industry

The Indian steel industry is very modern with state modernization and up-gradation of older plants and higher energy efficiency levels. In India, Steel Authority of India Limited (SAIL) and Tata Steel Ltd. are the first and the second largest steel-making companies respectively. Steel Authority of India Limited (SAIL) was incorporated on 24 January 1973, and is the largest steel-making company in India and one of the seven Maharatna's of the country's Central Public Sector Enterprises. On the other hand, Tata Steel Limited is a private sector company in India. Tata Iron and Steel Company were established by Dorabji Tata on 25 August 1907, as part of his father Jamsetji's Tata Group. The company changed its name from TISCO to Tata Steel in 2005. It is the second largest steel company in India (measured by domestic production) with an annual capacity of 9.7 million tonnes after SAIL.

DATA ANALYSIS AND INTERPRETATION

In this section of the study, research data has been presented and interpreted using the tables and figures in the study. These are given as follows:

Table 1: Debt-Equity Ratio of SAIL and Tata Steel Limited

Financial Year	Steel Authority of India Limited (SAIL)			Tata Steel Limited		
	Total Debt (Rs. in Crore)	Shareholders Equity (Rs. in Crore)	Debt- Equity Ratio (times)	Total Debt (Rs. in Crore)	Shareholders Equity (Rs. in Crore)	Debt- Equity Ratio (times)
2012-2013	21,597	41,025	0.52	27,507.79	57,484.68	0.48
2013-2014	25,281	42,666	0.59	27,917.26	63,422.99	0.44
2014-2015	29,898	43,505	0.68	28,198.44	68,938.89	0.41
2015-2016	35,141	39,196	0.89	30,843.51	48,912.38	0.63
2016-2017	41,396	36,009	1.14	28,284.63	51,934.01	0.54

Source: Annual Reports of SAIL and Tata Steel Limited and Research Data

The above table indicates the Debt-Equity Ratio of SAIL and Tata Steel Limited. The Debt-Equity Ratio of SAIL shows an increasing trend up to 1.14 times (in FY 17), that is an aggressive use of debt by the company. On the other hand, Tata Steel Limited has a moderate use of debt capital where the Debt-Equity Ratio is increased up to 0.63 times (in FY16).

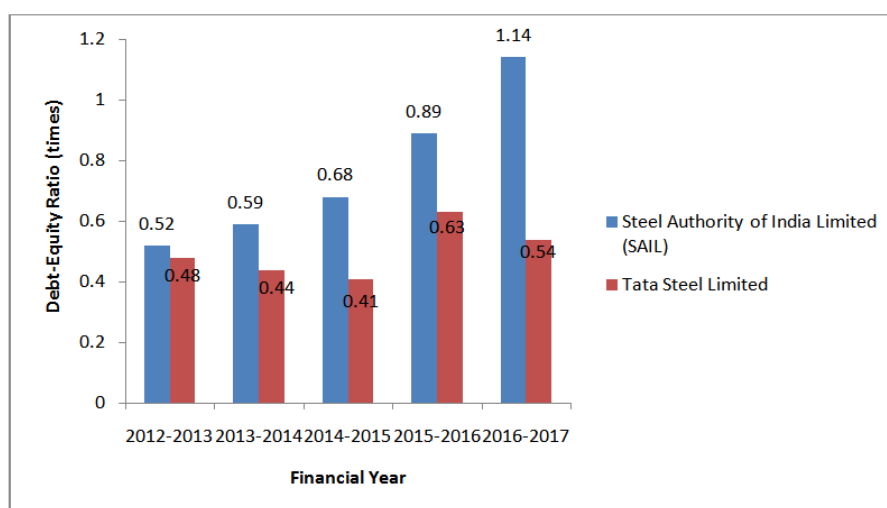


Figure 1: Debt-Equity Ratio of SAIL and Tata Steel Limited

Source: Annual Reports of SAIL and Tata Steel Limited and Research Data

Table 2: Earnings per Share (EPS) of SAIL and Tata Steel Limited

Financial Year	Steel Authority of India Limited (SAIL)			Tata Steel Limited		
	Net Income after Tax (Rs. in Crore)	Average Outstanding Common Shares (Number in crore)	Earnings Per Share of Rs. 10 each (EPS) (Rs.)	Net Income after Tax & Distribution on Hybrid Perpetual Securities (Rs. in Crore)	Average Outstanding Common shares	Earnings Per Share (EPS)
2012-2013	2,170	413.053	5.25	4,883.13	97,12,14,550	50.28
2013-2014	2,616	413.053	6.33	6,236.58	97,12,15,239	64.21
2014-2015	2,093	413.053	5.07	6,263.46	97,12,15,416	64.49
2015-2016	(4,021)	413.053	-9.73	781.59	97,12,15,439	8.05
2016-2017	(2,833)	413.053	-6.86	3,270.54	97,12,15,439	33.67

Source: Annual Reports of SAIL and Tata Steel Limited and Research Data

The above table indicates the Earnings Per Share (EPS) of SAIL and Tata Steel Limited. The Earnings Per Share (EPS) of SAIL was showing positive numbers till FY15, then the EPS went into negative number showing net loss for the company. On the other hand, Tata Steel Limited has the positive numbers for its EPS in all the study period. However, the company got a major decline in its EPS from Rs. 64.49 (in FY 15) to Rs. 8.05 (in FY 16).

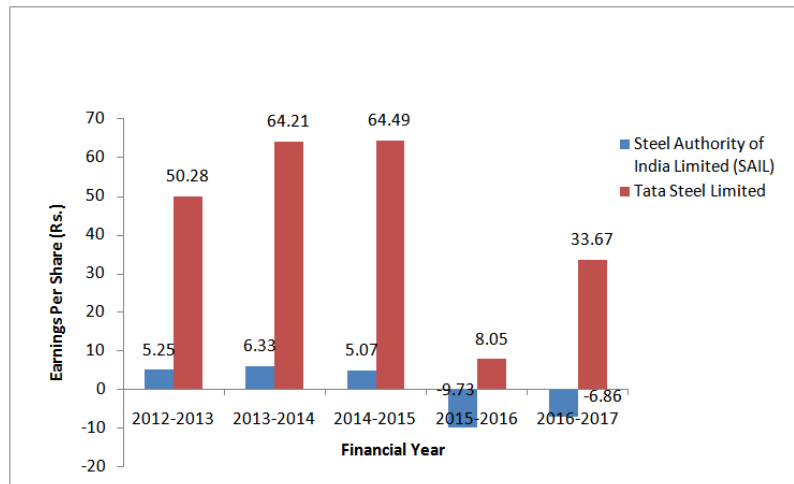


Figure 2: Earnings per Share (EPS) of SAIL and Tata Steel Limited

Source: Annual Reports of SAIL and Tata Steel Limited and Research Data

Table 3: Correlation between Debt-Equity Ratio and EPS

Financial Year	Steel Authority of India Limited (SAIL)			Tata Steel Limited		
	Debt-Equity Ratio (times)	Earnings Per Share (EPS) in Rs.	Correlation (between Debt-Equity Ratio and EPS)	Debt-Equity Ratio (times)	Earnings Per Share (EPS) in Rs.	Correlation (between Debt-Equity Ratio and EPS)
2012-2013	0.52	5.25	-0.85571	0.48	50.28	-0.99287
2013-2014	0.59	6.33		0.44	64.21	
2014-2015	0.68	5.07		0.41	64.49	
2015-2016	0.89	-9.73		0.63	8.05	
2016-2017	1.14	-6.86		0.54	33.67	

Source: Research Data

The above table indicates the Correlation between Debt-Equity Ratio and EPS of the Steel Authority of India Limited (SAIL) and the Tata Steel Limited using the software MS Excel 2010. The Correlation between Debt-Equity Ratio and EPS of the SAIL shows a high negative correlation, i.e., -0.85571 for the study period, it means that the use of debt has resulted in decreasing the EPS of the company. On the other hand, Tata Steel Limited has very high negative correlation between Debt-Equity Ratio and EPS, i.e., -0.99287 for the study period. Hence, Tata Steel Limited's shareholders earnings are reduced due increase in debt of the company for the study period.

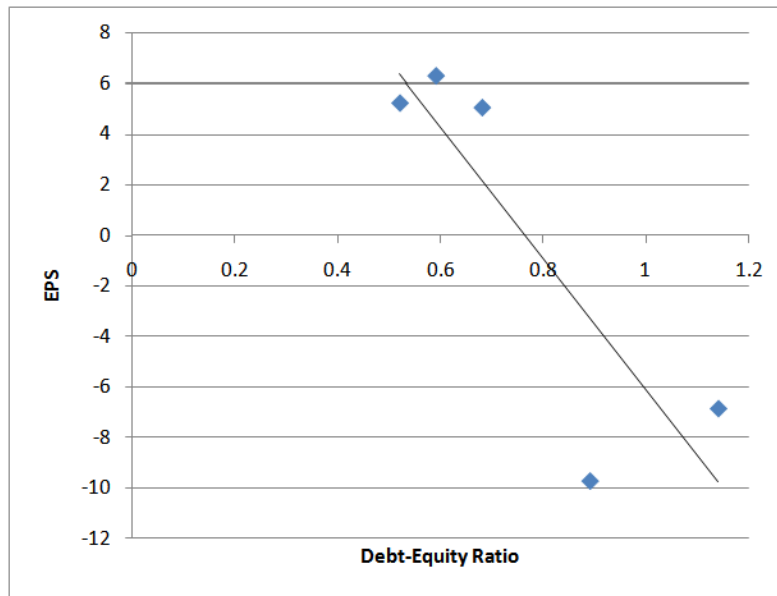


Figure 3: Correlation between Debt-Equity Ratio and EPS of SAIL

Source: *Research Data*

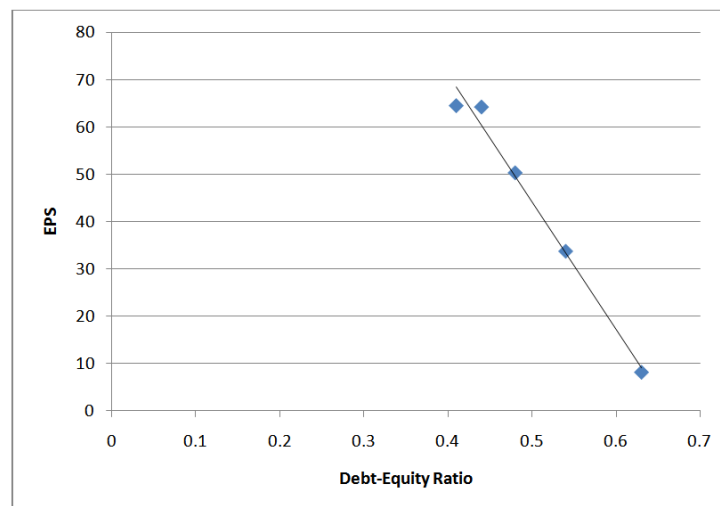


Figure 4: Correlation between Debt- Equity Ratio and EPS of Tata Steel Limited

Source: *Research Data*

FINDINGS

It is found in the study that there is a high correlation between the Debt-Equity Ratio and the EPS of the Steel Authority of India Limited (SAIL), i.e., -0.85571. On the other hand, Tata Steel Limited has very high negative correlation between Debt-Equity Ratio and EPS, i.e., -0.99287 for the study period.

CONCLUSIONS

In this study, the relationship between Financial Leverage and Profitability in Indian Steel Industry has been examined. For this purpose, the correlation analysis between the Debt-Equity Ratio and the EPS of the Steel Authority of India Limited (SAIL) and the Tata Steel Limited has been carried using the software MS Excel 2010. In this study, a high negative correlation is found between the Financial Leverage and the Profitability in Indian Steel Industry. Hence, it is suggested that the steel companies should avoid using debt capital in their future financing requirements in order to improve their profitability for their shareholders.

REFERENCES

1. E. P. (2013). *Leverage and its Impact on Earnings and Share Price A Special Reference to listed Companies of Colombo Stock Exchange (CSE) in Sri Lanka. International Journal of Technological Exploration and Learning (IJTEL), 02(04), 166-171.*
2. S, F. J. (2011). *Determinants of Financial leverage in Indian Pharmaceutical Industry. Asian Journal of Management Research, 02(01), 380-389.*
3. D. (2015). *A Study of Leverage analysis and Profitability for Dr. Reddy's Laboratories. International Journal of Research in Engineering and Social Sciences, 5(5), 17-31.*
4. Fasih Ur Rehman, S. S. (2013). *Relationship between Financial Leverage and Financial Performance: Empirical Evidence of Listed Sugar Companies of Pakistan. Global Journal of Management and Business Research Finance, 13(08), 34-40.*
5. Fasih Ur Rehman, S. S. (2013). *Relationship between Financial Leverage and Financial Performance: Empirical Evidence of Listed Sugar Companies of Pakistan. Global Journal of Management and Business Research Finance, 13(08), 34-40.*