

## **Myth vs. Fact; Influence of Financial Leverage on Shareholder's Return (An Empirical Study of Sugar Sector of Pakistan from Year 2005-2010)**

**Mr. Ahmed Muneeb Mehta<sup>1</sup>**

### **Abstract**

---

In this article the influence of financial leverage on shareholder's return is studied. Financial leverage describes how much amount of debt is used by a firm. Financial leverage increases with increase in debts. It increases the financial risk of the company as well as increases the opportunity for the firm to earn more by efficiently utilization of these resources. This high risk increases the expectation of the shareholder's to earn more return on equity. The present research paper explores the effect of financial leverage on shareholder's return. Financial leverage is taken as independent variable and Shareholders' Return as dependent variable. For this study, sugar industry of Pakistan is used. Data is used for the period of 2005-2010. All 35 listed companies of sugar industry are used for this study. Panel data procedure is used to see the influence of financial leverage on shareholder's return.

---

**Keywords:** Shareholder's Return., Financial Leverage

### **Introduction**

A company requires finance for fulfilling its short term as well as long term financial requirements. There are multiple options for the firm to finance these funds, it may be acquired through debts or equity. A successful mixing of different types of finance is suitable from the perspective of investor's, the lenders and the firm itself (DeMarzo & Fishman, 2007).

The prime purpose of a company is to increase investors' wealth and banking upon economical debt resources enables a company to increase shareholder's wealth.

---

<sup>1</sup> Lecturer, Hailey College of Banking & Finance, University of the Punjab, Lahore, Pakistan.

Market value of shares is the function of maximization of shareholder's return and it depends on EVA. If EVA is positive it will enhance owner's wealth so only investment at positive EVA will be desirable to maximize shareholder's wealth. The debts form of financing will increase earnings per share which will lead to increase the shareholder's wealth. The use of debts and equity funds is known as leverage (S & K, 2011).

Financial leverage shows the amount of debts representing in capital structure of the company. Keeping the other things the same, lower is borrowed amount, lower will be rate of interest and as interest provides the tax shield so the profit will also be lower. If greater will be amount borrowed, interest will be greater and tax shield increases the profit. As there is a fix payment of obligation of interest on debts so firm has great opportunity to earn a high amount of profit by efficiently utilization of these debts(Pachori & Totala, 2012).

Financial leverage describes firm uses how much amount of debts and equity to acquire its assets. Financial leverage increases with the increase in the percentage of debts which causes to increase the risk as well. Lower financial leverage carries lower risk. The risk averse management tends to avoid debts financing to reduce the risk (Evans, 2000).

Financial leverage measures the financial risk of the company. When there is a good economic condition financial leverage can increase EPS and it can decrease in bad economic conditions. In case of bad economic conditions with negative EBIT the result will be more dangerous in financial leverage negatively affect EPS. Financial leverage can increase both shareholder's return as well as their risk (Panday, 2007).

The efficiency of enterprise in all the activities such as commercial, operational and financial contribute to the return on equity (Niculescu, 1997). Shareholder's return (SR), is an idea used to associate the efficiency of different organization's shares over a specified period of time. The overall amount of the total shareholder's come back will differ with stock equity markets, but the comparative place shows the market understanding of total efficiency comparative to a referrals group (Pachori & Totala, 2012).

## **Problem Statement**

Finance is the blood of firms. There are various modes of financing, debts and equity. The choice of the optimal financing is the basic need of firms. Managements try to adopt that financial pattern which gives maximum benefits to shareholders. Financial leverage represents amounts of debts and equity owned by company. As the portion of debts is increased the financial leverage and financial risk are also increased. The expectation of shareholders with the increase in risk to earn on return on equity is also increased. The study previously has been done in India which showed that financial leverage does not influence shareholders return. In this study by taking the evidence from Sugar Sector of Pakistan tries to identify the relationship between financial leverage and shareholder's return.

## **Objective of the Study**

- To ascertain the impact of financial leverage on shareholder's return.

## **Literature Review**

Finance is required to acquire assets of the company. This finance is contributed through internal sources as well as external sources (investment made by the company in its own company and borrowed money from outsiders). The difference between the both required rate of return (earning on the investment and payment to outsiders) leads to financial leverage. Change in the leverage of the company due to the effect of prices of the bonds and stock change the risk of the company (Bhatti, Majeed, Rehman, & Khan, 2010).

It was known that in a risky debt company the shareholders of the company will invest their money into the company only when their required rate of return at least as high as the company agreed to pay to bondholders. Because in higher risk investors expect higher return; if their required rate of return is low the shareholders will not invest in the company or will not invest the proper amount which they want to invest. They only invest up to the level at which they yield return which forego this risk. The problem of this low or underinvestment will reduce the value of the firm (Myers, 1977).

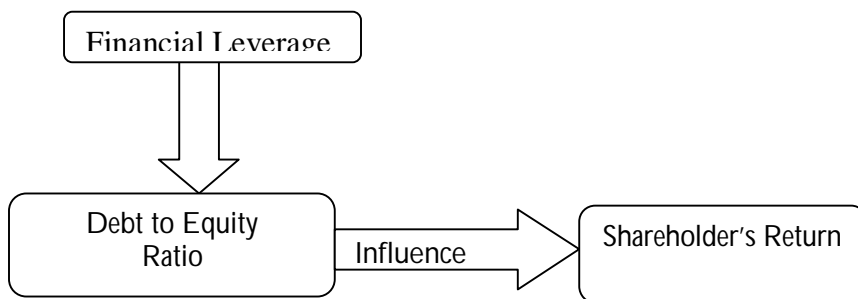
The profit of the company is divided into many parts. Some of this is retained for rainy day and some of this is distributed among shareholders. The part of the profit which is distributed among shareholders is known as dividend. Change in the policies regarding payment of the dividend will change the perception of the shareholders. In risky condition shareholders will claim for high dividend to compensate this risk. If financial leverage of the company is high, this will give a chance to shareholders to earn higher rate of return on equity and at the same time will increase chance of losses if there is a decrease in rate of return on asset. The external debts also affect the independency of the company(Nicoleta, 2010).

Jensen & Meckling (1976) Argued that there has been a pressure group who tried to change the determinant of financial leverage from the previous conventional tax- cost of bankruptcy toward a thought of agency costs. It was discovered that the policy of a firm' investment is changed with the change in risky debts outstanding.

### Theoretical Framework

According to literature review it is come to know that shareholder's return is related to financial leverage. According to the literature, many researchers found that it have a positive relationship between shareholder's return and financial leverage of the firm.

**Figure 1.Schematic Theoretical Framework**



## Research Methodology and Design

The purpose of this study is to see whether financial leverage influences shareholder's return of the firm or not. For this purpose debt to equity ratio which represents the financial leverage of the firm is taken as independent variable and return on equity ratio which represents the shareholder's return is used as a dependent variable. This is secondary based study. In this study, Sugar Sector of Pakistan is studied. All the listed Sugar companies at the Karachi Stock Exchange are taken in this study. Number of Sugar companies that are listed on Karachi Stock Exchange are 35. The study is conducted over the period of six years 2005-2010. Data for 35 companies is taken from the financial reports. Debt to equity ratio is calculated by Total Debts/Shareholder's Equity. This ratio measures the financial leverage of the firm; whereas return on equity is calculated by Net Profit/Shareholder's Equity. This ratio expresses the shareholder's return.

Panel data procedure is used to see the impact of financial leverage on specific shareholders' return of the firm. Fixed effect model and random effect model is also applied on the data. To analyze this data Eviews 6 version software is used. Following is the propose model of study:

$$SHR_{it} = \alpha + \beta DTE_{it} + \epsilon_{it}$$

Where;

SHR= Shareholders' Return

DTE= Debt to equity ratio

## Hypotheses of the Study

H1= Financial leverage influences the shareholders' return.

H0= Financial leverage does not influence the shareholders' return.

## Results and Findings

The data is run on Eviews6. Panel Least Squares, Fixed Effect Model and Random Effect Models are used one by one. The following are the results of the process;

**Table 1.Simple OLS**

Dependent Variable: ROE  
 Method: Panel Least Squares  
 Date: 06/05/12 Time: 15:58  
 Sample: 2005 2010  
 Periods included: 6  
 Cross-sections included: 35  
 Total panel (balanced) observations: 210

	Coefficient	Std. Error	t-Statistic	Prob.
C	6.850923	15.20689	0.450514	0.6528
DTE	-2.071051	0.395949	-5.230599	0.0000
R-squared	0.406244	Mean dependent var		12.71762
Adjusted R-squared	0.381996	S.D. dependent var		233.2158
S.E. of regression	219.7685	Akaike info criterion		13.63251
Sum squared resid	10046029	Schwarz criterion		13.66438
Log likelihood	-1429.413	Hannan-Quinn criter.		13.64539
F-statistic	27.35917	Durbin-Watson stat		2.655092
Prob(F-statistic)	0.000000			

**Table 2.Fixed Effect Model**

Dependent Variable: ROE  
 Method: Panel Least Squares  
 Date: 06/05/12 Time: 16:00  
 Sample: 2005 2010  
 Periods included: 6  
 Cross-sections included: 35  
 Total panel (balanced) observations: 210

	Coefficient	Std. Error	t-Statistic	Prob.
C	8.878217	15.21990	0.583330	0.5604
DTE	-1.355379	0.475920	-2.847917	0.0049
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.451231	Mean dependent var	12.71762	
Adjusted R-squared	0.392627	S.D. dependent var	233.2158	
S.E. of regression	219.6903	Akaike info criterion	13.37712	
Sum squared resid	8397909.	Schwarz criterion	13.35091	
Log likelihood	-1410.598	Hannan-Quinn criter.	13.20908	
F-statistic	17.57908	Durbin-Watson stat	2.290346	
Prob(F-statistic)	0.000008			

**Table 3. Random Effect Model**

Dependent Variable: ROE

Method: Panel EGLS (Cross-section random effects)

Date: 06/05/12 Time: 16:01

Sample: 2005 2010

Periods included: 6

Cross-sections included: 35

Total panel (balanced) observations: 210

Swamy and Arora estimator of component variances

	Coefficient	Std. Error	t-Statistic	Prob.
C	6.850923	15.20148	0.450675	0.6527
DTE	-2.071051	0.395808	-5.232462	0.0000
Effects Specification				
			S.D.	Rho
Cross-section random			0.000000	0.0000
Idiosyncratic random			219.6903	1.0000
Weighted Statistics				
R-squared	0.406244	Mean dependent var		12.71762
Adjusted R-squared	0.381996	S.D. dependent var		233.2158
S.E. of regression	219.7685	Sum squared resid		10046029
F-statistic	27.35917	Durbin-Watson stat		2.655092
Prob(F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.406244	Mean dependent var		12.71762
Sum squared resid	10046029	Durbin-Watson stat		2.655092



**Table4. Analysis Results Summary**

Models	Pooled Regression	FEM	REM
Constant (Prob.)	6.850923 (0.6528)	8.878217 (0.5604)	6.850923 (0.6527)
DTE (Prob.)	-2.071051 (0.0000)	-1.355379 (0.0049)	-2.071051 (0.0000)
R2	0.406244	0.451231	0.406244
Adj R2	0.381996	0.392627	0.381996
F-stat (Prob.)	27.35917 (0.000000)	17.57908 (0.000008)	27.35917 (0.000000)
Akaike Criterion	13.63251	13.37712	-
Schwarz Criterion	13.66438	13.35091	-
Durbin Watson	2.655092	2.290346	2.655092

As the results showed that Fixed Effect model is the best among them. The model shows that there is a negative significant impact of debt to equity ratio on return on equity. The value of B1 is -1.355379 which shows that 1% change in debt to equity ratio the return on equity will negatively change by 1.355%. R2 is 0.451231 which shows that 45.12 % variation in return on equity is explained by the debt to equity ratio. Value of F significant shows that overall model is good fit. The value of Durbin Watson is 2.290346 which shows that problem of heteroscedasticity does not exist. The value of Akaike and Schwarz are also less in this model.

Best Model  $SHR_{it} = 8.878217 - 1.355379DTE_{it}$ .

## Conclusion

Following is the conclusion that researcher concludes from the study: As values of the model are significant and it explains only 45.12% variation so we reject the  $H_0$  that the Financial leverage does not influence the shareholder's return. The debt to equity ratio (financial leverage) influences the return on equity shareholder's return and this is match with literatures.

## References

- Bhatti, A. M., Majeed, K., Rehman, I. u., & Khan, W. A. (2010). Affect of Leverage on Risk and Stock Returns: Evidence from Pakistani Companies. *International Research Journal of Finance and Economics* , 32-49.
- DeMarzo, P. M., & Fishman, M. J. (2007). Optimal Long-term Financial Contracting. *The Review of Financial Studies*, 20 (5).
- Evans, M. H. (2000). *Excellence in Financial Management*.
- Jensen, M., & Meckling, W. (1976). Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure. *Journal of Financial Economics* , 305-360.
- Myers, S. (1977). Determinants of Corporate Borrowing. *Journal of Financial Economics* 147-175.
- Nicoleta, B.-M. (2010). *Financial Risk Analysis in the Building Sector: A Case Study of Romania*. Department of Finance and Economic Efficiency .
- Niculescu, M. (1997). *Strategic Global Diagnosis*. Economic Publishing House.
- Pachori, C. S., & Totala, D. N. (2012). Influence of Financial Leverage on Shareholders Return and Market Capitalization: A Study of Automotive Cluster Companies of Pithampur,(M.P.), India. 2nd International Conference on Humanities, Geography and Economics (ICHGE'2012) Singapore, (pp. 23-26). Singapore.
- Panday, I. (2007). *Financial Managment*. Dehli: Vikas Publishing.
- S, F. J., & K, M. (2011). Determinants of Financial leverage in Indian Pharmaceutical Industry. *ASIAN JOURNAL OF MANAGEMENT RESEARCH*, 2 (1), 380-389.