

The Impact of Capital Structure and Financial Performance on Stock Returns “A Case of Pakistan Textile Industry”

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Abstract: Capital structure changes and financial performance are of central importance to judge the overall returns of the firms and more importantly to know whether stock returns are sensitive to change in capital structure. To quantify such impact, stock return has been taken as dependent variable and debt to equity, return on equity ratio, cash flow ratio, earning per share and time interest earned ratios have been used as independent variables. Using ordinary least square model, results has been drawn from the mentioned variables. Debt to equity ratio, return on equity ratio, cash flow ratio, earning per share and time interest earned ratio positively affect stock return. Based on the empirical findings it has been concluded that variation in capital structure and firm performance does affect the stock returns of Pakistani textile industry.

Key words: Capital Structure • Financial Performance • Stock Returns • Textile Industry • Pakistan

INTRODUCTION

Capital structure refers to the way that how firms finance its right hand side of the balance sheet. Most often firms level both side of balance sheet with optimal level of debt and equity mix to maximize the overall value of the firm [1] in their work on capital structure shows that the firm value concerns with, how the firm structures its capital in order to determine its earning and create value for its assets and it is independent of how the firm finance to invest, or to pay dividend to its shareholders [2]. Firms have different available financing opportunities; to borrow, to issue shares or to spend profit. Perspectives with regard to stock return and its impact analyzes that if the firm finances with debt or equity, it does not make any difference to the overall firm value. The other major contribution to the issue for example [3] “Pecking order theory” and Jensen and [4] the “Agency Theory” of debt are pivotal to the current study. The picking order theory origin is asymmetric information, which implies that firms’ manager have more information about the company

activities than the outsiders. In this regard, the theory explains that if a firm wants to finance a project through equity, they issue shares below the current market prices, while the management gives signal to the market that shares are undervalued and management is not confident to finance the project through debt. In this context, the shocking news is “issue of share” in the stock market. On the other hand, if external financing were used to finance a project, then management signals confidence of serving debt in future and hence debt is preferred over shares [5, 6].

The studies with regard to the issue of share and debt preferred over share i.e. [7] argue that cost is of central importance in financing decision, because there exists conflict of interest between shareholders and creditors. Suppose if firms want to finance two projects; one is risky and have low pay off and the other is high risky and have high pay off, the management will prefer high risky and high pay off project because if the project is successful, management will earn high residual cash flow after paying the debts. If the project fail the majority

of lose is entitled to the creditors because the shareholders have limited liability. Beside these theories, empirical studies highlight the major determinants of capital structure like tangibility, risk, size, growth and profitability.

Corporations are struggling to maximize the value of the firms, which is only possible by making optimal capital structure decisions [8]. The corporate body develops plans regarding the use of available capital in order to serve the interest of all the stakeholders including stockholders. The capital structure and cost of the capital have great importance while assessing the financial performance of the firms. Most of the equipment intensive firms prefer to have high debt to equity ratio in order to avail benefits of low capital cost. However, it works up to a certain level as the finance manager of the firm determines which level is optimum. Financial economists believe [9] that highly leveraged firms have higher earnings than low leveraged firms (due to low cost of capital). The firms that have more debt financing are considered more risky because investors avoid investing with such firms which will cause stock price decreasing and ultimately results in negative stock returns.

Share prices and capital structures affect Stock returns as the capital structure has direct impact on stock returns. Research shows that stock returns also have significant impact on overall financial performance of companies [10] while positive stock returns contribute in the value maximization of companies. Share price fluctuations adversely affect stock returns and companies have various corporate level strategies to deal with both recession and boom, that is, in recession, stock market offer lower returns and when there is bulk investment in the capital market, the stock returns tends to be positively affected due to appreciation in share prices [11].

Firms' financial performance is directly related to changes in share prices. Efficient management practices enhance share value, but now-a-days, companies skillfully manipulate the bottom figures of financial statements to report steady earnings per share and hence stock returns [12]. The Pakistan stock market is volatile and sensitive as noted by [13] and changes are occurring rapidly due to political upheavals. Besides, the world financial market movements are associated to significantly affect the overall capital market of Pakistan and the delay in payments made to the country in the 2009, of amounting 60 billion US dollar (only delayed for a month), causes

about 850 points decline in KSE-100 index [14]. To analyze such influences, the current has been carried out to analyze the impact of return variation on capital structures of public listed companies of Pakistan while focusing on textile industries. In this regard, it has been observed that capital structure decisions play an important role in the capital development of a company. The most important decisions made by company shareholders have direct concern with the value of the firm and therefore, affect are overt with stock returns. Many studies [15][16][17][18], suggest that those firms who change their leverage level, experience frequent changes in the stock prices. The results of the current study will benefit the investors to invest in textile sector, as capital structure affects share prices and firm value. Change in debt and equity affect stock price, i.e. if the dynamic Pecking order theory prevails [19] increase in profit depends on increased equity financing and cause increase in stock returns. On the other hand, increase in debt decreases stock price and hence stock returns. Trade-off theory states that a deviation from the optimal capital structure (either increase or decrease) would result in a lower stock returns. The specific objectives of the study are:

- To assists investors going for investment in textile sector of Pakistan
- Study and analyze the impact of debt to equity ratio, profitability and earnings per share on stock returns of Pakistan textile industry

Research Proposition: The increase in profit depends on increased equity financing and cause increase in stock returns while on the other hand, increase in debt decreases stock price and hence stock returns as well.

This paper has been framed under various sections including introduction, related literature, data collection and methodology, discussion over the empirical results and finally conclusion, findings and recommendations.

Literature Review: While studying the impacts of stock return [20], in his work in MM proposition II "The Abnormal Stock Returns and Leverage" by testing 2673 listed companies on London Stock Exchange. The findings indicate that leverage has negatively and significantly affect the stock returns and affect remain negative and significant even if other risk factors like tax rate and industry concentration were added. In this

regard, [21] analyzed the US stock market returns for a period of (1928 to 1997) and the analysis was based upon equity and debt as the prime parameters that determine the market returns. The general market experiences shows that issuing comparatively more equity than debt just before period of low market returns. Equity shares have reliable predictive power of explaining the market returns. The results were not in accordance with efficient market hypothesis because sometimes equity return predicts market returns negatively; which shows market inefficiency. It was preferable that firms tend to prefer equity finance before period of low returns and debt before period of high returns. Numerous researchers had worked on the capital structure dynamics and their impact on stock returns as [22] augments that stock returns were positively correlated to debt to equity ratio. In this regard, [23] is on the opinion that leverage ratio and abnormal returns are not significantly correlated by investigating the relationship between abnormal returns and leverage ratio in Hong Kong stock market. Similarly, [24] concluded that world emerging markets are highly significant to cash flow ratio by incorporating the fixed effect model. Pakistan stock markets are volatile but potentially attractive to bulk investments [25]. Stocks having high earning per share have higher positive future returns and vice versa [26].

Studies on the stock return as conducted by [27] while studying 425 European firms indicates that that stock returns involves a high degree of volatility due to many reasons such as the change in leverage ratio, which is mainly determined through stock price movements. Larger variations in leverage ratios can be explained by stock returns effect. In the similar context, [28] in their study examined the US listed firms from 1960 to 2000 and augmented that stock returns was negatively correlated to debt ratios when firms were inactive and do not rebalance their debt ratios in periods of increasing or decreasing stock prices. Firms were not enough active to new activities, the counter act largely influences the stock returns. If the debt ratio changes occur with same proportions with their returns, capital structure and stock returns remain balanced. He concluded that stock returns are the primary determinants of capital structure changes.

MATERIALS AND METHODS

Generally, most of the capital structure theories predict negative or positive relationship between leverage and stock returns; which conclude that with the probability of generating high returns, the risk of financial

distress is also high. The current study was carried to test empirically the impact of capital structure on stock returns of Pakistan Textile Industry. For this purpose, 69 listed companies were taken from textile industry as a sample from 189 listed companies for a period (2003-2009). These firms were selected on the basis of their share price information availability for eight years. Data were collected from annual financial statements of the companies i.e. Basic balance sheet analysis published by state bank of Pakistan, profit and loss account and business recorder.

Ordinary Least Square Regressions: Equation-01 represents the functional form of the Simple Regression (OLS) model for the study;

$$Sr_{it} = \beta_0 + \beta_1 DTER_{it} + \beta_2 ROE_{it} + \beta_3 CFR_{it} + \beta_4 EPS_{it} + \beta_5 TIE_{it} + \epsilon_{it} \quad (01)$$

In the above equation,

β_0 stand for the intercept term

β_i stand for slope coefficients where $i = 1, \dots, 5$

“ $_{it}$ ” = $_{i}$ th cross section = $_{t}$ th time period.

SR_{it} stands for Stock returns of the i^{th} firm for the t^{th} time period.

$DTER_{it}$ stand for Debt to equity ratio of the i^{th} firm for the t^{th} time period.

ROE_{it} stand for Return on equity of the i^{th} firm for the t^{th} time period

CFR_{it} stand for Cash flow ratio of the i^{th} firm for the t^{th} time period.

EPS_{it} stands for Earning per share of the i^{th} firm for the t^{th} time period.

TIE_{it} stand or time interest earned of the i^{th} firm for the t^{th} time period.

ϵ_{it} is the error term the i^{th} firm for the t^{th} time period.

Stock Return: Stock Returns was calculated by ending value of the stock, divided by beginning value of the stock. If any dividend is received, we add it to the final results. It is the compensation that an investor demands either giving the use of his resources to a person or firms or increase in value of the wealth of an individual or firms due to a profitable operation. To calculate stock returns we take natural log of returns to bring them in random form, because the random data give reliable results.

Model Specification

$$R_t = \ln(P_t) / \ln(P_{t-1})$$

where

R_t = Returns for stock on day t

P_t = Yearly closing price of stock on day t

P_{t-1} = Yearly closing price of stock on previous day (t-1)

\ln = Natural logarithm

RESULTS AND DISCUSSION

In Pakistan, the investor's demands above average returns on their investments, reasoning various potential uncertainties of interest rate variation, frequent exchange rate movements. The government gives attractive incentives to foreign investors to strengthen the economy and decrease the trade deficit. Pakistan markets are high volatile but predictable. The dominance of investor group, which trade heavily and infrequently, affects the stock price movements [29]. The study predict a positive trend in the stock returns of textile industry of Pakistan because majority of the companies are family owned and the directors run the company in the interest of majority shareholders instead of all stakeholders.

Descriptive Statistics: Descriptive statistics show means, standard deviation, skewness and kurtosis of all variables. The analysis shows, there exist abnormal variations between means and standard deviation of all variables.

The descriptive statistics was carried out to explain the combined effects of the entire sample. Karachi stock exchange was ranked among the top stock markets and best performing stock market of the world in 2002. Despite these, the sequence of currency devaluation from (1995 to 1997) and nuclear test in (1998), the foreign investors withdrew their investment on short notices which, seriously affect Pakistani economy. The presence of potential risk increased the demand for high-risk premium, the overall returns on investment increased [30]. Pakistani stock market experienced frequent changes in the last decade. The stock price declined that affected flow of funds to finance and the debt financing ultimately due to which the brokers defaulted, which lead vulnerability in share prices both in short run and long run [31]. The means and standard deviation for the dependant variable stock returns and (debt to equity ratio, return on equity ratio, cash flow ratio, earning per share

and time interest earned ratio) independent variables didn't follow their means indicating high volatility in the stock market of Pakistan.

The table show the Pearson correlation for independent variable (debt to equity ratio, return on equity ratio, cash flow ratio, earning per share and time interest earned ratio) and dependent variable (stock returns). The value of less than 0.80 of correlation matrix shows that variables were not strongly correlated and no multicollinearity were found.

Regression Results: In this approach, the researchers assume that all coefficients are constant across time (time invariant) and individual (firms do not differ in any characteristics in any skill such as technology or managerial skills etc.). The given table shows the regression results of fixed effect model.

Significance of Slope Coefficients: The t-statistics shows that individual slope coefficient significance and p-value shows the exact level of significance. The t-value of debt to equity ratio is 2.21 and p value is.0347, which shows that debt to equity ratio, is statistically significant. The slope coefficient of debt to equity ratio (DTER) is positive and p-value 0.004, which confirms that one time increase in DTER leads to 0.004 time increase in the dependent variable stock returns. The results are with conformity with the findings of [32] that increases in leverage, increase expected stock returns. Similarly, [33] studied that increase in the debt to equity ratio increases the risk of common stock holder and demand for high returns.

The t-value of return on equity ratio is 3.051 and p-value is 0.0047, which shows that return on equity ratio is significant. The slope coefficient of return on equity ratio (ROER) is positive and 0.47, which indicates that one time increase in ROER leads to 0.47 time increase in stock returns. Similarly, [34] explains that there is a weak relationship exists between stock returns and equity investment and the results are positively significant. It also confirms a picking order suggestion. The t-value of cash flow ratio is 2.65 and p-value is 0.01 showed that the cash flow ratio is significant. In the beginning, we explained that in Pakistan there is a practice of skillful manipulation in bottom line digits of financial statements. The world emerging markets are highly significant to cash flow ratio by incorporating the fixed effect model [35]. The t-value of earning per share is 2.643 and p-value is 0.008, which show that earning per share is significant.

Table 1: Variables Description and Their Measurement

Variable	Abbreviations	Measurement
Stock return	SR	Stock return was calculated by Log of ending value of the stock divided by beginning value of the stock.
Debt to equity ratio	DTER	This ratio was calculated by total liabilities as a percent of total shareholder equity.
Return on equity ratio	ROER	Return on equity ratio was calculated by dividing net profit before taxes as a percent of shareholder equity.
Cash flow ratio	CFR	Cash flow ratio was measure by depreciation plus retention in business as a percent of depreciation for the year plus changes in the capital employed.
Earnings per share	EPS	This Ratio was measure by profit minus dividend divided by number of share outstanding
Time interest earned ratio	TIER	This ratio was measure by dividing the net income by interest expenses

Table 2: Descriptive Statistics

	SR	DTER	ROER	CFR	EPS	TIE
Mean	-0.002541	295.1774	9.881624	44.49071	4.558440	15.66169
Std. Dev.	0.650020	659.2644	209.2253	751.8179	17.75306	149.6936
Kurtosis	6.024973	144.8843	157.7476	217.8567	28.64304	167.2322
Skewness	-0.238862	10.44744	8.918564	-13.25011	4.085745	10.71774
Minimum	-2.744418	0.000000	-1420.000	-13000.00	-49.40000	-495.000
Maximum	2.801743	10642.10	3369.000	2244.400	155.5000	2495.000

Table 3: Correlation Matrix

	SR	DTER	ROER	CFR	EPS	TIE
SR	1.000000					
DTER	0.082004	1.000000				
ROER	-0.000919	-0.175853	1.000000			
CFR	0.004304	0.009180	0.085684	1.000000		
EPS	0.122482	-0.074157	0.193258	0.051543	1.000000	
TIE	0.034052	-0.044036	0.022593	0.052214	0.218048	1.000000

Table 4:

Variables	Coefficient	Std. Error	t-Statistic	Prob.
Intercept	0.967454	1.202194	0.804741	0.4273
DTER	0.004481	0.002025	2.212285	0.0347
ROER	0.471523	0.154517	3.051594	0.0047
CFR	0.001663	0.000627	2.651697	0.0127
EPS	0.005997	0.002235	2.643772	0.0081
TIER	0.399856	0.159864	2.501222	0.0181

After controlling for systematic risk and size of the firm stock having high earning per share have higher positive future returns and vice versa [36]. The slope coefficients of time interest earned ratio (TIER) is 0.399 and positive, which indicate that one time increase in TIER leads to about 0.39 time increase in the dependent variable stock returns, explains that timely interest payments appreciate the stock returns. The results conforms our expectation.

CONCLUSION

The study findings and the application of statistical and empirical analysis conclude that firms' profitability is judged by positive upward trend in their stock values. However, it will be possible only when the market operates in a normal way. In the literature, it has been

discussed that all the financial ratios used in this study, directly or indirectly affects stock returns. The size and effect of ratio vary because organization uses it according to their effective contribution to the overall value of the companies. From the results, it has been concluded that the abnormal variations are the evidences of instability that exists in the capital market of Pakistan.

The current study suggested that Pakistan equity market behavior is predictable but dynamic. The findings on the equity and earnings per share positively affect the stock return. The current affect is because of domestic investment in the industry, the government must give certain incentives to the local investors i.e. reduction in taxes and lenient credit terms in order to encourage the local investors to invest in the home country. The domestic investor profits will be certainly increased and will affect the capital market of Pakistan positively.

- The current study suggested that Pakistan equity market behavior is predictable but dynamic. If government does not take precautionary actions in present, defiantly it ultimate affects will be on the long run growth of textile industry. It will not only cause decline in market capitalization of textile industry but also affect the overall equity market of Pakistan.
- The consistent devaluation of Pakistani currency against US dollar has twofold affect on the textile industry i.e. positive and negative; the positive affect is that Pakistan textile product becomes cheap in the international market and the negative affect is that, the textile industry needs latest machinery for spanning and weaving (two main manufacturing process), which cost them heavily in form of increase in their fixed cost. The government must provide subsidies to the textile sector in latest technology adoption and will enable this sector to achieve the economy of scale position. And can compete globally.
- In recent years, the law and order situation in the country was uncertain, which restricts the foreign investors to expand their investment in the capital market of Pakistan. Political leadership must take necessary actions to stabilize the law and order situation of the country. This step will not only secure the economic growth but also restore the foreign investors' confidence and can help in stabilization of the equity market of the country.
- The foreign firms face serious problems while investing in Pakistan. First, they cannot borrow funds from the local market due to high interest rates. Secondly, the cash outflow in form of heavy taxes. Asian financial crises also restrict the country GDP growth rate to 2.1% (2011). The government must take initiative to reduce the indirect taxes to encourage the live long existence of multinationals in the country, whose ultimate positive affects will be seen in the long run on the country's overall capital market.
- From the findings of equity and earnings per share positively affects the stock return. The current affect was because of domestic investment in the industry, the government must give certain incentives to the local investors i.e. reduction in taxes and lenient credit terms in order to encourage the local investors to invest in the home country. The domestic investor profits will be certainly increased and will affect the capital market of Pakistan positively.
- Inflation harms the overall economic growth of Pakistan equity market since the last decade. To control inflation, the government increase the interest rates, which in short run is effective but in long run, the increase in interest rates not only discourage local investor but also the foreign investors because they cannot afford expensive debt. The government, instead of increasing interest rate, can control the inflation by assisting (giving subsidy) to the firms in energy usage, which leads to decrease the core cost of industries and ultimately lowers the general price level. It enables the firms to retain good amounts for future expansions and stock return remains smoothen.

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