

The Effect of Capital Structure on Share Price On Listed Firms In Kenya. A Case of Energy Listed Firms

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Abstract

The focus of this study is to investigate the relationship between capital structure and share prices in the Nairobi Stock Exchange. The study assessed effect of debt, equity and gearing ratio on share price. The study was guided by Modigliani and Miller (MM). The study uses panel data pertaining to energy sector over the period 2006-2011 and employs multiple regression method. The results indicate that the variables debt, equity and gearing ratio are significant determinants of share prices for the sector under consideration. Further, gearing ratio and debt were found to positively affecting share prices, while equity negatively affected share prices

Keywords: Share Prices, Gearing Ratio, Equity, Debts

Introduction

Determining share prices is a complex and conflicting task. According to theory of economics, price of any asset is usually determined by the market forces. Similarly in case of shares prices, it emerges by trading between the investors in stock markets. Major forces working in this case include the firm's key performance indicators (fundamentals), market efficiency, investor's perception, and some macroeconomic variables like GDP, inflation and oil prices (Malik *et al.*, 2012).

Investors in the stock market put their money to earn return on their investment. Shares are sold by one investor to another. This sale purchase is based on the level of information possessed by each participant. According to rational choice theory (RCT) a shareholder who foresees declining performance by the company in future may sale shares. Similarly an investor with an improving performance prediction for a company may want to purchase shares of that company. In this way it depends on the level of information to some extent (Malik *et al.*, 2012)

Share price determination is a contradictory task, affected by lots of factors. However, some only few studies have conducted in developing countries like Kenya. The perspective of this paper is to determine the preferred sources of financing by Kenyan listed firms and in particular the energy sector. The energy sector is unique because of the huge demand for energy in the country and this is an opportunity to examine the sources of financing for Kenyan listed firms that are experiencing growth and huge capital investments

Literature Review

There are very many sources of long term finance but they can be classified in to Equity capital and Debt capital. Equity capital is the initial capital which the owners of the business provide to start a business. Private firms' source of equity capital is from the owners and family members. When owners want to grow their business further they can introduce investors such as angel investors, venture capitalists, private equity firms, institutional investors and corporate investors. Private companies can go public to introduce new investors to the company by first issuing preferred shares or issuing ordinary shares through an Initial Public Offering (IPO). When issuing shares to the public, managers and business owners have other concerns apart from loss of control of the company. These include the cost of issuing the shares, pricing of shares and the uncertainty of shares being fully subscribed. Retained profits are also considered as part of equity capital and long term financing if dividends are not paid.

Companies can also borrow from various potential sources and these include loan notes, debentures and bonds. The main concerns company owners have when issuing debt capital are effect of covenants on the activities of the business, obligation to pay interest and obligation to pay the principal amount. The benefit derived from issuing debt

finance is the tax deductible interest payments which make debt finance cheaper. A source of finance that has caused controversy and seems strange is leasing (McLaney, 2009). This is because leasing allows the lessor to retain ownership of the asset although at the end of the lease period the ownership may pass to the lessee. Leasing tends to be encouraged by tax implication, high interest rates and cash shortages (Hannagan, 2002). Leasing frees an organisation from having to find a large sum when purchasing or borrowing.

Theoretical framework

The theories on capital structure demonstrate the effect of capital gearing on WACC, the value of the business and shareholder's wealth. The traditional theory encourages companies to take on debt so as to reduce WACC, since at low levels of gearing the increased cost of equity is not important. At high levels of gearing the returns expected by both shareholders and lenders increases pushing WACC higher. However, just before shareholders' and lenders' returns begin to increase, shareholders' wealth is maximised and this is the point where WACC is at its minimum (McLaney, 2009). The Modigliani and Miller (MM) view on capital structure is that when debt is introduced, shareholders would require a higher return. However, the low cost of debt compensates for the high expectation of shareholder's returns therefore the effect on WACC is zero. MM is based on assumptions that a firm is not affected by the amount of debt a firm issues, has no corporate taxes nor does it face the possibility of going bankrupt (Scott, 1976). The MM theory was later revised to exclude tax as an assumption as this was seen as unrealistic. Building on the MM theory, the trade off theory suggests that there should be a balance struck between the tax shield (benefits of interest payments) and bankruptcy costs (Graham and Leary 2011). The argument put across by this theory is that the value of a firm is maximised when it is geared as the benefits from tax relief cancels or minimises the potential cost of bankruptcy.

The pecking order theory suggests that the optimal debt ratio is assumed to be second in order (Sunder, and Myers, 1999). Specifically, due to high adverse selection costs firms prefer internal funds. The reasons why managers are reluctant to issue shares is because of the high issue costs, shares being issued at a discount during the period of the share issue and the uncertainty over the subscription of shares during an IPO and Rights issue. When there is a financing deficit, firms prefer debt issues because of low information costs associated with debt (Frank and Goyal, 2003).

According to Nirmala (2011) that more debt content in the capital structure of a firm decreases, its share price rise and vice versa. This indicates that investors prefer firms with lower debt content, since increased use of debt by a firm lowers the earnings available for equity shareholders and investors become apprehensive about their returns

In developing countries control on the prices in the security markets along with government directed credit programmes to preferred sectors could have a significant impact on corporate financing patterns (Booth, et al. 2001). Since the energy is one of the most crucial sectors of the economy we find out if there are any financial constraints facing Kenyan firms and find out if firms have taken out debt to carry out the strategic objectives. Most importantly we find out if firms in this crucial sector have significant debt in their capital structure and if it has any effect on share performance and thus we hypothesise

H0₁: Debt has no significant effect on the share prices in Kenyan firms

Baker and Wurgler (2003) as cited in Bayar et al (2009) found that the probability of a firm issuing equity rather than debt is increasing in both the level of optimism of outside investors and the dispersion in outsider beliefs. Callao, Jarne & Lainez (2007); and Gaston, et al. (2010) commented that both earnings and book value of equity are best to check the share price determination power among fundamentals.

In their study of microstructure elements of the bond structure in Kenya, Ngugi and Agoti (2007) they found that the corporate bond market is not operating optimally and is not vibrant. Booth, et al. 2001, argued that as equity markets become more developed they become a viable option for corporate financing and firms make less use of debt financing.. Therefore we hypothesis

H0₂: equity has no significant effect on the share prices in Kenyan firms

Gearing ratio

Theoretical finance has always regarded leverage as one of the basic sources of financial risk. In the real world of finance, capital structure decisions are critical as a shift in leverage could increase or decrease the financial strains on companies (Muradoglu and Sivaprasad, 2008)

Nirmala et al, 2011, revealed that gearing ratio is possible determinants of share prices and their study employed employs the fully modified ordinary least squares method to identify the share price determinants. The results indicate that the variables dividend, price earnings ratio and gearing ratio are significant determinants of share prices for all the sectors under consideration. Dimitrov and Jain (2005) report negative relation between leverage and share price. They study changes in leverage levels and show that they are negatively related to contemporaneous and future adjusted returns (as cited in Muradoglu and Sivaprasad, 2008). George and Hwang (2006) found a negative relation between returns and book leverage. They explain that firms that suffer most (least) in financial distress maintain low (high) leverage. Thus, the return premium to low leverage firms relative high leverage firms appear to be a form of compensation for the financial distress costs.

The negative effect of leverage change on stock prices appears to be consistent with the debt overhang theory of Myers (1977). This theory predicts that higher leverage increases the probability of a firm forgoing positive NPV projects in the future, because in some states, the payoff from these investments to shareholder, after fulfilling debt obligations, is lower than the initial investment shareholders have to outlay. This under-investment reduces the growth option value of a firm. Thus, an increase in the leverage ratio can result in a lower stock price, all other factors equal (Cai and Zhang, 2011)

H0₃: gearing ratio has no significant effect on the share prices in Kenyan firms

Research Methodology

The sample data was obtained from various sources and include the Nairobi Securities Exchange (NSE), company audited financial statements and investment banks which analyse financial statements of companies. The forms of long term finance include leasing, retained earnings, borrowings and share capital. The data was collected and summarised as presented in financial statements and no alterations were made. Share capital included capital revaluation reserves and capital premium as this is an estimate of capital gained. Borrowings and leasing were taken as presented in the financial statements under non-current assets.

In support of the study, secondary sources of data were used and they were obtained from organisations that had published their research on the internet, which had relation to the study. Other sources of data include the Capital Markets Authority website that has periodic reports on the performance of the Kenyan financial markets. The periodic reports mainly have performance of equity and debt markets for both government and private organisations. Multiple regression statistical techniques are used to draw conclusions and test the empirical relationships in data. At first descriptive statistics is used to check the features of variables. Secondly, Pearson's coefficient of correlation is used to check the causal relationship between the variables. At third multiple regressions is used to test the collective relationship as elaborated in hypotheses

Empirical Findings and Conclusion

In this section we present the findings, Table 1 presents the descriptive statistics for the three independent variables, namely, Equity, Debt and Gearing Ratio and dependent variable namely, Share Price used in this study. Equity was measured as ratio of equity to asset, debt was proxy of debt divided by total asset, while gearing was measured as equity to debt ratio. all variables were calculated from monthly data. The sample's mean of equity was 0.8912 which was highest than debt (0.36760) with less standard deviations of 1.2 and 0.3 respectively. The mean of the gearing ratio was 0.67. The standard deviation is 61.5% with a range between zero and 149%. We consider the properties of the sample later in empirical estimations and use multiple regressions Model to carry out the cross-sectional regressions that include all variables in our study.

Table 1 Descriptive statistics

	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Equity	0.00	4.8	0.8912	1.22819	1.922	3.128
Debt	0.00	1.43	0.3676	0.37463	1.265	0.788
Gearing Ratio	0.04	3.14	0.6728	0.61542	2.323	6.809
Share Price	0.04	1.49	0.6271	0.43051	0.8	-0.56

After descriptive statistics correlation analysis is conducted. Pearson's coefficients of correlation in table 2 show that there is high causal relationship between the variables of study. Gearing ratio and share price reported highest degree of positive correlation (85.3%). Then equity had the negative correlation of 35.7% with share price. Nevertheless, the correlation between the debt and share price was not significant. However study is not dependent on these results only.

Table 2 Correlation statistics

	Share Price	Equity	Debt	Gearing Ratio
Share Price	1			
	0			
Equity	-.357** (0.005)	1		
		0		
Debt	0.034 (0.797)	.838** (0.000)	1	
			0	
Gearing Ratio	.853** (0.000)	-.312* (0.014)	0.022 (0.868)	1
				0

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

In Spite of these significant values and one to one relationship between the variables, we also conducted the regression analysis to check the explanatory power for equity, debt and gearing ratio in shape of valuation models expressed in table 3. Multicollinearity diagnostic test was conducted using variance inflation factor (VIF). The values for VIF were less than 4 indicating that there was no Multicollinearity among the variables.

Further, we conducted the test three hypotheses. It resulted in rejection of null hypotheses (p-value less than 1%). Results indicated that R square is 78.6%. Adjusted R square is also pretty much close to R square. All the variables are significant in model.

Hypothesis 1 stipulated that debt has no significant effect on the share prices in Kenyan firms. Findings in table 3 indicated that debt had beta value of 0.484 with p value $0.001 < 0.05$. Thus, hypothesis 1 was rejected. We therefore infer that debt had positive effect on share price. This finding contradicts Nirmala (2011) findings that increase in the debt content in the capital structure of a firm decreases, its share price rise and vice versa.

Hypothesis 2 assumes that equity has no significant effect on the share prices in Kenyan firms. Results in table 3 showed that equity had beta value -0.554, p value $0.000 < 0.001$, hence hypothesis 2 is rejected inferring that equity had negative effect on share price. The findings does not support Baker and Wurgler (2003) findings that the probability of a firm issuing equity rather than debt is increasing in both the level of optimism of outside investors and the dispersion in outsider beliefs.

Finally, hypothesis 3 postulate that gearing ratio has no significant effect on the share prices in Kenyan firms. Empirical results indicated 0.670 beta value for gearing ratio which was significant at 0.05 level of significance, hence hypothesis 3 was rejected. This implies that share price was positively affected determined by gearing ratio. the study findings contradicts with Dimitrov and Jain (2005) findings that leverage had negative relation with share price, George et al (2006) finding that book leverage had a negative relation with stock returns/share price. The positive effect of leverage change on stock prices appears to be inconsistent with the debt overhang theory of Myers (1977). This theory predicts that higher leverage increases the probability of a firm forgoing positive NPV projects in the future, because in some states, the payoff from these investments to shareholder, after fulfilling debt obligations, is lower than the initial investment shareholders have to outlay

Table 3 Multiple Regression Results

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	0.281	0.049		5.73	0.000		
Equity	-0.194	0.05	-0.554	-3.92	0.000	0.788	1.322
Debt	0.556	0.154	0.484	3.601	0.001	0.808	1.806
Gearing Ratio	0.469	0.054	0.670	8.700	0.000	0.632	1.581
R Square		0.786					
Adjusted R Square		0.775					
F		69.849					
Sig.		0					

Dependent Variable: Share Price

Recommendations

On overall basis some implications can be inferred from this study. Share Price determination models used in this study is relevant for NSE. The evidence presented in this paper provides a implications that leverage has an crucial role to play in explaining share price. Firms may find it paramount to increase their leverage with implications to the increase in share price, thus encouraging more investors. Increase in debts would results in increase in share price possible reason for this could be economic, where the availability of cheap debt has enabled firms to take advantage of cheap credit for expansion and profitable investments. This may have led to firms in the portfolios to experience high share prices. In contrast, the results indicate that equity have a negative relation with share price in the model used for the estimation. The results indicate that equity decrease in share price.

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