Impact of Capital Structure on the Profitibality of Petroleum Sectorin Pakistan

Dr. Syed Atif Ali[1]

[1] The University of Lahore

Received: 8 February 2012 Accepted: 29 February 2012 Published: 15 March 2012

Abstract

This study aims to analyze the impact of capital structure on the profitability of petroleum sector of Pakistan, while controlling the size of the company. A total of 12 companies were selected randomly for the study and take ten years data from 2001 to 2010. Regression analysis was conducted. The results show that there is a significant and positive impact of capital structure on the profitability of the petroleum sector; this study has potential for replication in other industries like cement, textile and pharmaceutical. In over all analysis capital structure has the significant analysis but the individual analysis of every company has not significant because every company has their own capital structure. Overall Profitability depend on the capital structure.

Index terms— profitability, capital structure.

Introduction i a

) Key Indicator at a Glance he location of Pakistan at the crossroad of the central Asia and the Arabian Sea has bought into spotlight its significance as an attractive market and a regional transit route for energy. Oil and Gas are two of the major components of energy mix contributing 80% share to the 64 million TOE of t energy requirement in the country. The government is formulating investor friendly policies to increase the share of indigenous resource in the country. As a result of these policies, the oil and gas sector has attracted foreign direct investment of over US$ 550million in 2010-11.

Up till now 791 well have been drill by various local and international exploration and production companies with over 250 oil and gas discoveries, bringing the gas reserves to 29 TCF. An investment of US$ 10million was spent in drilling activities with 30 new wells drilled in the last year. Whereas the crude oil recoverable reserves are estimated at 304 million barrels. The current oil production is 65,997 barrel per day, while gas production is at 4billion cubic feet per day.

Pakistan is one of the largest consumers of gas in the regain. It has well developed and intenerated infrastructure for transportation, distribution and utilization of natural gas with 9,480 km transmission and 104.449km of distribution network. The two gas distribution companies plan to invest over US $300 million to increase the capacity existing transmission and distribution network.

Presently, the two most important regional pipeline projects that are being planned include Iran-Pakistan (IP) pipeline and Turkmenistan-Afghanistan-Pakistan and India (TAPI)pipeline projects. The IP project will require total investment of US $ 7 billion and will provide around 750 MMCFD gas, whereas the TAPI project worth US $ 7.6 billion and will provide 1.365 billion cubic feet of natural gas per day to Pakistan.

Currently seven refineries are operating in the country with a refinery capacity13 million tonnes per year.

Pakistan is now the largest CNG user in the world. Presently there are 3,329 CNG stations operating with an investment of US $ 1 billion, serving 2.5 million vehicles in the country.

Oil: LPG is an environment friendly and economical fossil fuel available in Pakistan. People in remote area having no access to natural gas are the major user of LPG. The annual LPG consumption is 6000,000 tonnes out of which 20% is met through imports. An Investment US $ 10.5million has been made in the order to develop the LPG supply of infrastructure in the last year. The import of LPG for the current year is 55826.4MT.

1 Coal:

Pakistan has one of the largest coal reserves in the world. Which are estimated at over 185 billion tonnes. An investment of US $ 94 million was made for the development of Thar coal infrastructure during the last year. Thar coal project has immense potential to cater to the increase national energy requirement fordecade with a relativelylow unit cost.

Oil & Gas Pakistan will once again serve as an ideal showcase of the latest in technology, equipment and machinery. It will provide key player with a definite outlook of the regional oil gas sector to further enhance the investment and advancement in Pakistan energy's industry.

Capital structure refers to the way a corporation finances its assets through some combination of equity, debt, or hybrid securities. Consider a perfect capital market (no transaction or bankruptcy costs; perfect information) firms and individuals can borrow at the same interest rate, no taxes, and investment decisions are not affected by financing decisions. Modigliani and Miller made two findings under these conditions. Their first proposition was that the value of a company is independent of its capital structure. Their second proposition stated that the cost of equity for a leveraged firm is equal to the cost of equity for an unleveraged firm, plus an added premium for financial risk. That is as leverage increases, while the burden of individual risks is shifted between different investor classes, total risk is conserved and hence no extra value created. www.pogee.com.pk II.

2 Literature Review

In this paper the relation between ownership structure and firm value across the across a sample of 5,284 firm years of China's partially privatized former state-owned enterprises (SOE) from 1991-2001. They find that state and institutional shares are significantly negatively related to Tobin's Q, and that significant convex relations exist between Q and state shares, as well as between Q and institutional shares. They also find that foreign ownership is significantly positively related to Tobin's Q. They test for potential endogeneity of ownership, and find that Q and state/foreign ownership are not jointly determined. They also test for time-series, industry, and geo-economic location effects, and find the results to be robust. Composition of Energy Mix and fixed effects models nevertheless. (Shoaib2, 4 March, 2011) This study proposes to examine the effect of profitability, tangibility, size and liquidity on capital structure decisions of the listed companies in oil and gas sector of Pakistan. The study attempts to provide information that may help in taking capital structure decisions in listed companies of oil and gas sector of Pakistan, which will ultimately support in maximization of the value of firms on the one side and the minimization of cost of capital on the other side. The results indicated that profitability is the only variable that showed negative relationship against the dependent variable leverage, whereas the other three variables, liquidity, size and tangibility have positive relationship with leverage. The study concludes that capital structure decisions in listed oil and gas sector companies are mostly determined by the factors studies. The study substantiates the findings of most of the researches conducted on capital structure, concluding that there is an optimal capital structure that is affected by a variety of internal and external factors. (Mahvish Sabir, FEBRUARY 2012) This study aims to analyze the impact of capital structure (i.e. short-term, long-term and total debts) on the profitability of companies in textile industry of Pakistan, while controlling the size of the company. A total of 17 companies (initially 7 and then another 10) were selected randomly for the study. Regression analysis was conducted on six different regression models. The results show that there is a significant and positive impact of short term debts on the profitability of the firm; however long-term debt has no impact on the profitability. It is shown that short-term debts are useful for companies having small sales and vice versa. This study has potential for replication in other industries like cement, petroleum and pharmaceutical (Wali ur Rehman, 2012)

This paper shows that mispriced deposit insurance and capital regulation were of second order importance in determining the capital structure of large U.S. and European banks during 1991 to 2004. Instead, standard cross-sectional determinants of non-financial firms' leverage carry over to banks, except for banks whose capital ratio is close to the regulatory minimum. Consistent with a reduced role of deposit insurance, they document a shift in banks' liability structure away from deposits towards nondeposit liabilities. They find that unobserved timeinvariant bank fixed effects are ultimately the most important determinant of banks' capital structures and that banks' leverage converges to bank specific, time invariant targets. (Heider, S EPTEMBER 2009) This paper examines the impact of capital structure on firm's financial performance using sample of thirty non-financial firms listed on the Nigerian Stock Exchange during the seven-year period, 2001-2007. Panel data for the selected firms are generated and Analyzed using Ordinary Least Squares (OLS) as a method of estimation. The result shows that a firm's capital structure surrogated by Debt Ratio, DR has a significantly negative impact on the firm's financial measures (Return on Asset, ROA and Return on Equity, ROE). The study by these findings, indicate consistency with prior empirical studies and provide evidence in support of Agency cost theory. (Onaolapo, 2010) The purpose of this paper is to investigate the effect of capital structure has had on corporate performance using a panel data sample representing of 167 Jordanian companies during 1989-2003. Results showed that a firm's capital structure had a significantly negative impact on the firm's performance measures, in both the accounting and market's measures. They also found that the short-term debt to total assets (STDTA) level has a significantly positive effect on the market performance measure (Tobin's Q). The Gulf Crisis 1990-1991 was found to have a positive impact on Jordanian corporate performance while the outbreak of Intifadah in theWest Bank and Gaza in September 2000 had a negative impact on corporate performance. **??**Tian, 1(4), 2007) In

this paper they examine the importance of firm-specific and country-specific factors in the leverage choice of firms from 42 countries around the world. The study yields two new results. First, they find that firmspecific determinants of leverage differ across countries, while prior studies implicitly assume equal impact of firm-specific factors. Second, although they agree with the conventional direct impact of country-specific factors on the capital structure of firms, they show that there is an indirect impact because country-specific factors also influence the roles of firm-specific determinants of leverage.(Abe de Jong, September 2007)

In this paper they analyze that capital structure choices of firms in 10 developing countries (Brazil, Mexico, India, South Korea, Jordan, Malaysia, Pakistan, Thailand, Turkey and Zimbabwe) and provide evidence that these decisions are affected by the same variables as in developed countries. However there are persistent differences across countries, including that specific country factors are at work. Finding suggest that although some of the insights from modern finance theory are portable across countries, much remains to be done to understand the impact of different institutional of capital structure choices. (LAURENCE BOOTH, FEBRUARY 2001) In this paper, they explore two of the most relevant theories that explain financial policy in small and medium enterprises (SMEs): pecking order theory and trade-off theory. Panel data methodology is used to test the empirical hypotheses over a sample of 6482 Spanish SMEs during the five-year period 1994-1998.

The results suggest that both theoretical approaches contribute to explain capital structure in SMEs. However, while find evidence that SMEs attempt to achieve a target or optimum leverage (trade-off model), there is less support for the view that SMEs adjust their leverage level to their financing requirements (pecking order model). (López-Gracia, 2003) III.

3 Objective of the Study

Impact of capital structure on the profitability How capital structure effect on profitability of overall petroleum sector IV.

4 Research Methodology

The purpose of the study is to evaluate the impact of capital structure on profitability. In overall analysis there is a significant relation between the capital structure and profit the analysis shows that the P value (0.00) which shows the significant relation and R 2 (.36) which is 36% which also good sign for the analysis. So the findings shows that the profit depend on the capital structure. Table 2 shows the 12 companies results which find form the regression analysis and the 2 companies have the significant relation 1 st one is oil and gas development corporation P value (0.00) R2 (0.72) both values shows the significant relation and the 2 nd is Pakistan petroleum limited P value (0.01) and R 2 (0.55) in that company the result shows the significant relation P value and R 2 is very fine so in these companies profit depend on the capital structure.

Other 10 companies have not the significant relation between the capital structure and profitability because the P value and the R 2 are not good but Attock Refinery and National Refinery limited P value is (0.07) and (0.08) respectively. If see the all findings then the almost all companies have not significant relation. So finally in these 10 companies profitability did not depend on the capital structure.

5 VI.

6 Conclusion

The results show that there is a significant and positive impact of capital structure on the profitability of the petroleum sector only in overall analysis but in individual analysis the analysis has no significant. Only two companies oil and gas development and Pakistan petroleum has the significant relation between the capital structure and the profitability. Overall profitability depends on the capital structure but due to [1] [2] [3]

[1] © 2012 Global Journals Inc. (US)

[2] ©2012 Global Journals Inc. (US)

[3] ©2012 Global Journals Inc. (US) Impact of Capital Structure on the Profitibality of Petroleum Sectorin Pakistan

Figure 1:

Figure 2:

1

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.60							
R Square	0.36							
Adjusted R Square	0.35							
Standard Error	14.30							
Observations	120.00							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	1	13569.43	13569.43	66.32	0.00			
Residual	118	24145.24	204.62					
Total	119	37714.67						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	9.39	1.48	6.35	0.00	6.46	12.32	6.46	12.32
Capital Structure	0.00	0.00	8.14	0.00	0.00	0.00	0.00	0.00

Figure 3: Table 1 :

2

C Company Name	Intercept	Regression	P-Value	R 2
Mari Gas Company Ltd.	10.84	0.00	0.64	0.03
Attock Petroleum Ltd.	9.71	0.00	0.07	0.34
Attock Refinery Ltd.	8.27	0.00	0.21	18.16
Bosicor Pakistan Limited.	-2.52	0.00	0.73	0.01
National Refinery Ltd.	14.27	0.00	0.8	0.01
Pakistan Refinery Ltd.	4.12	0.00	0.38	0.09
Pakistan State Oil Company Ltd.	15	-2.9	0.84	0.0025
Shell Gas Lpg (Pakistan) Ltd.	5.11	0.00	0.95	0.000508
Shell Pakistan Ltd.	-0.37	0.00	0.65	0.026
Oil & Gas Development Corp. (OGDC)	7.51	0.00	0.00	0.72
Pakistan Oilfields Ltd.	37.88	-9.4	0.21	0.18
Pakistan Petroleum Ltd.	11.12	0.00	0.01	0.55

Figure 4: Table 2 :

.1 This page is intentionally left blank

[Australasian Accounting Business and Finance Journal] , *Australasian Accounting Business and Finance Journal* p. .

[Tian ()] *Capital structure and corporate performance evidence from Jordan*, R Z Tian . 2007. 1.

[Onaolapo ()] 'Capital Structure and Firm Performance Evidence from Nigeria'. A A Onaolapo . *Finance and Administrative Sciences* 1450-2275 Issue 25. 2010. 2010. (European Journal of Economics)

[De (2007)] 'Capital structure around the world The roles of firm-and country-specific determinants'. Abe De , Jong , RK . *Journal of Economic Literature* September 2007. p. 41.

[Sabir ()] 'Determinants of Capital Structure -A Study of Oil and Gas'. Mahvish Sabir , QA . *INTERNATIONAL JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS* FEBRUARY 2012. 3 (10) .

[Wali Ur Rehman ()] 'IMPACT OF DEBT STRUCTURE ON PROFITABILITY IN TEXTILE INDUSTRY OF PAKISTAN'. G F Wali Ur Rehman . *Int. J. Eco. Res* 2229-6158. 2012. 3 (2) p. .

[Laurence and Booth ()] Laurence , V A Booth , -K . *CAPITAL STRUCTURE IN DEVELOPING COUNTRIES*, FEBRUARY 2001. LVI.

[Shoaib2 (2011)] 'Measuring performance through capital structure: Evidence from banking sector of Pakistan'. M A Shoaib2 . *African Journal of Business Management* 4 March, 2011. 5 (5) p. .

[López-Gracia ()] *PECKING ORDER VERSUS TRADE-OFF: AN EMPIRICAL APPROACH TO THE SMALL AND MEDIUM ENTERPRISE CAPITAL STRUCTURE*, F S López-Gracia , .-M . 2003. (IVIE working papers EC JEL: C34, G32, G33., V-2871)

[Wei (2005)] 'Qwnership Structure and Firm Value in China's Privatized Firms: 1991-2001'. Zuobao Wei , FX . *Journal of Financial and Quantitative Analysis* March 2005. 40.

[Heider and (s Eptember ()] 'THE DETERMINANTS OF BANK CAPITAL STRUCTURE'. R G Heider , (s Eptember . *WORKING PAPER SERIES* 2009. 1096.