

DOES DEBT DIVERSIFICATION LEAD TO A DISCOUNT IN FIRM VALUE?

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Abstract: Corporate firms access multiple sources of debt simultaneously. This study analyses the impact of debt diversification on firm value. We argue that, when firms diversify their debt sources, the monitoring role played by debt holders decreases as a result of the free rider problem. Hence, such firms should experience a value discount in the capital markets. Our empirical analysis provides evidence for the existence of a value discount in the capital markets for firms accessing multiple sources of debt. Our results remain robust for alternative measures of debt diversification.

Keywords: Debt Diversification, Debt Specialization, Firm Value, Free Rider, Agency Costs

the phenomenon of debt diversification is yet to be thoroughly examined. One such pertinent area is the impact of debt diversification on firm value. Managers of a firm are expected to take decisions that increase shareholders' wealth. This then leads us to the question whether the managerial decision to go for multiple sources of debt is a value-adding decision or not. In other words, do firms with diversified sources of debt command a better value in the capital markets?

The theoretical rationale for a relationship between debt diversification and firm value can be traced to Jaffee and Russell (1976) and Stiglitz and Weiss (1981) who argue the existence of credit rationing in the financial markets. Credit rationing limits the ability of firms to raise the required amount of debt from a single source or lender which in turn could potentially restrict managers from undertaking worthwhile projects. In such settings, debt diversification becomes an optimal strategy that managers can implement to overcome the constraints levied by credit rationing. This facilitating nature of the debt diversification decision, therefore, suggests a positive association between debt diversification and firm value. This positive association finds further theoretical ground through Harris and Raviv (1990) and Rajan (1992) who argue that debt plays an essential disciplining role by reducing the agency costs of equity. In the presence of

sources of debt thus: we measure the concentration of debt, the Herfindahl-Hirschman scores, by summing the squared ratios of individual debt to total debt.

$$= \sum_{i=1}^n \left(\frac{d_i}{D} \right)^2 \quad (2)$$

The value obtained in (2) is then normalized using Eq. (3) to arrive at

results, shown in Table 3, based on the normalized HHI as the measure of debt diversification, support the findings in Table 2, based on *Debt Number*. Overall, the analyses offer substantial evidence that firms which use diversified debt sources experience a value discount in capital markets.

Table 2: Regression analysis using Debt Number

Table 3: Regression analysis using HHI

Dependent Variable: Tobin's Q is the ratio of the market value to the book value of the firm's total assets. The main independent variable is HHI which is the dispersion-adjusted measure of debt diversification. The control variables are: Firm Size is log of firm sales, ROA is the return on total assets, Tangibility is the ratio of net investments in plant and machinery to total assets, Asset growth rate is the change in total assets over lagged total assets, R&D Ratio is the ratio of research and development expenditure to total assets, DPR is the ratio of total dividends to total assets, and Leverage is the ratio of total debt to total assets. The coefficients are estimated using fixed effects estimator, and heteroscedasticity-adjusted standard errors, clustered at the firm level, are presented in parentheses. ***, ** and * denotes significance at 1%, 5% and 10% respectively.

	Full Sample	Small Firms	Large Firms
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financial constraints engendered by credit rationing might potentially erode shareholder wealth.

References

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-1.8 (j)d-3.6 (u)5.6 (rr(a)-157 (e)-0.6 (s)24.8(ci)-4.8 (n ra)-5.4 (t).3 (hS)4 (t)-4.4 (m)-1.8 5(c)-1.6 (.)1.8 (g)g)-0.6