ABSTRACT

This project examines the risk characteristics of firms with low book-value to market-value of equity. A number of empirical studies find that average equity returns for these firms decline as default risk increases. The empirical evidence is puzzling, since exposure to systematic risk increases as leverage increases. Thus expected returns should also increase if investors demand compensation for bearing greater systematic risk.

Using the equity pricing relation developed in Rolph (2008), we examine whether the value of limited liability protection drives the negative relation between average equity returns and default risk. Within this model, expected equity returns may decline as leverage increases. Limited liability provides a hedge against declines in losses, and the value of the hedge is largest for firms with the high covariance between asset cash flows and the investors’ wealth portfolio. We will use the equity pricing relation developed in Rolph (2008) to estimate firm asset risk, and examine how firm risk and equity returns vary with book-to-market ratios and the likelihood of financial distress.