MAF MN50324: Spring 2009

Capital Structure Exercise 2.

A firm is considering its capital structure, and the effect on firm value. Currently, its market value of debt as a percentage of total market value (debt plus equity) is 25%. It is planning to change this such that the market value of debt will be 40% of total market value. The firm has expected perpetual future cashflows of $\pounds100,000$.

The risk-free rate is 5%. The firm pays corporation tax of 30%. The expected return on the market is 15%, and the company's current leveraged beta is 0.8.

Required;

- a) Calculate the current cost of equity.
- b) Calculate the current WACC.
- c) Using a DCF model, calculate the current market value of the firm, the current value of debt, and value of equity.
- d) Calculate the new WACC, market value of the firm, and value of debt and equity, if the firm makes the proposed capital structure change.
- e) Draw diagrams showing the effect of the debt-equity ratio on cost of capital and firm value. Demonstrate where the answers in a) d) appear on your diagrams.
- f) Why do the WACC and firm value curves appear as they do?
- g) Compare and contrast the Jensen and Meckling (1976) and Myers and Majluf (1984) models.