Self-Study Quiz 2

Equity Valuation - Finance 70610

1. **Leverage and Beta:**
You are performing a discounted cash flow valuation for a growing retail firm. Using data for the firm and a set of comparables, you estimate that the current equity Beta for the firm is 0.95. The firm's equity has a market value of $800 million and its debt has a market value of $200 million, giving it a debt-to-equity ratio of 0.25. The firm's marginal tax rate is 40%.

   a) Calculate the unlevered Beta for this firm (Note: use the formulas that incorporate the tax effects of debt).

   b) The firm has announced that it plans to increase its debt by $200 million over the next year. Calculate the revised equity Beta that will apply following this capital structure change (assume the market value of equity does not change during the year).

   c) Calculate the firm's weighted average cost of capital (WACC) after the capital structure change. Assume that the firm's cost of debt is 6.5%, the risk-free rate is 5%, and the market risk premium is 4.8%.

2. **Implied Equity Premium:**

The current level of the Dow Jones Industrial Average is 10,420. The aggregate dividend yield on the index during the past year was 2.56% of the current index value and the average long-term growth forecast for the Dow stocks is 4.89%. The yield on 10-year Treasury Bonds is 4.20%.

a) Based on the information above, calculate the implied equity risk premium for the U.S. market.

b) The combined payout on the Dow stocks, incorporating both dividends and repurchases, was approximately 3% of the current index value. Recalculate the implied equity risk premium including both dividends and repurchases.