Study Plan

Chapter 10

Learning Objectives

After studying this chapter you should be able to:

- Differentiate between operating and financial leverage, and the potential effect each of them has on a firm's cost of capital;
- Estimate the firm's weighted average cost of capital, both with and without the allowed tax-deductibility of interest payments to bondholders;
- Review the roles of breakeven analysis and sensitivity analysis in evaluating investment opportunities;
- Explain how scenario analysis, Monte Carlo simulation, and decision trees can be used to assess an investment's risk;
- Discuss the human aspects of capital budgeting

Summary and Conclusions

- All-equity firms can discount their "standard" investment projects at the cost of equity. Managers can estimate the cost of equity using the CAPM.
- The cost of equity is influenced by a firm's cost structure (operating leverage) as well as by its financial structure (financial leverage).
- Firms with both debt and equity in their capital structures can use the weighted-average cost of capital, or *WACC*, to discount the cash flows of investments that do not change the firm's cost structure or financial structure.
- The *WACC* equals the weighted average of the cost of each source of financing used by a firm, with the weights equal to the proportion of the market value of each source of financing.
- The *WACC* and the CAPM are connected in that the cost of debt and equity (and any other financing source) are driven by the betas of the firm's debt and equity. Rather than calculate betas for preference shares and debt, we can estimate their returns using dividend yield for preference shares and yield-to-maturity (YTM) for debt.
- The *WACC* can be calculated on both a pretax and an after-tax basis. Because typically interest payments to bondholders are tax deductible, we typically focus on the after-tax *WACC* formula.
- A variety of tools exist to assist managers in understanding the sources of uncertainty in a project's cash flows. These tools include breakeven analysis, sensitivity analysis, scenario analysis, Monte Carlo simulation, and decision trees.