# THE COST OF CAPITAL

## THE WEIGHTED AVERAGE COST OF CAPITAL (WACC)

- •What are the sources of capital?
- How do I calculate the WACC?

## THE COST OF DEBT

•What do I use for the cost of debt?

### THE COST OF PREFERRED STOCK

• How do I estimate the cost of preferred stock?

### THE COST OF COMMON STOCK

- •Is it costly to issue common stock?
- How do I estimate the cost of common stock?

  - 2. Dividend Yield Plus Growth Rate (DCF Model)

## **USING THE CAPM**

- •What is the risk-free rate?
- •What is the market risk premium?
- •Where does beta come from?

## **USING DIVIDEND YIELD PLUS GROWTH RATE (DCF MODEL)**

- How do I estimate the growth rate?
  - 1.
  - 2.
  - 3.

## THE WEIGHTED AVERAGE COST OF **CAPITAL (WACC)**

• The formula:

$$WACC = \left(\frac{\text{Common Equity}}{\text{Total Capital}}\right) \times R_E + \left(\frac{\text{Preferred Equity}}{\text{Total Capital}}\right) \times R_P + \left(\frac{\text{Debt}}{\text{Total Capital}}\right) \times R_D \left(1 - t\right)$$

- Keep in mind:
  - Capital StructureNOT Book Values

  - What does the WACC measure?

### WHAT AFFECTS THE WACC?

- Interest Rates
- Market Risk Premium
- Taxes
- Capital Structure
- Dividend Policy
- Investment Policy

## RISK AND THE APPROPRIATE DISCOUNT RATE

- What if the risk of a project or division is different than that of the firm?
- Using Betas
  - Pure Play Method
  - Accounting Beta Method
- Risk-Adjusted Cost of Capital

## **FLOTATION COSTS**

- •What are flotation costs?
- How do I estimate the costs of debt and equity including flotation costs?

## **FLOTATION COSTS**

#### WACC EXAMPLE

As CFO of Callipygian, Inc., you are trying to determine the firm's weighted average cost of capital (WACC). You have gathered the following information: The firm has 2,000 bonds, 35,000 preferred shares, and 100,000 common shares of stock outstanding. The bonds currently have a yield to maturity of 6.5881% and trade at 125% of par. The preferred stock pays a \$5.25 annual dividend and currently trades at \$70. The firm's common stock currently sells for \$32.10 and has a beta of 0.95. You know the yield on 10 year U.S. Treasuries is 5.3%, the historical market risk premium is 6 percent, and the firm has a marginal tax rate of 40 percent.

## **CHAPTER 13 SUGGESTED PROBLEMS**

- Concept Questions
  - 1, 2, 5, 6, and 7
- Questions and Problems
  - 1, 3, 5, 6, 11, 12, and 17