

- Using the discounted cash flow approach, what is its cost of equity?
- If the firm's beta is 1.6, the risk-free rate is 9%, and the expected return on the market is 13%, then what would be the firm's cost of equity based on the CAPM approach?
- If the firm's bonds earn a return of 12%, then what would be your estimate of r_s using the over-own-bond-yield-plus-judgmental-risk-premium approach?
(Hint: Use the midpoint of the risk premium range.)
- On the basis of the results of parts a through c, what would be your estimate of Shelby's cost of equity?

(9-11) Radon Homes' current EPS is \$6.50. It was \$4.42 five years ago. The company pays out 40% of its earnings as dividends, and the stock sells for \$36.

Cost of Equity

- Calculate the historical growth rate in earnings. (Hint: This is a 5-year growth period.)
- Calculate the *next* expected dividend per share, D_1 . (Hint: $D_0 = 0.4(\$6.50) = \2.60 .) Assume that the past growth rate will continue.
- What is Radon Homes' cost of equity, r_s ?

(9-12) Spencer Supplies' stock is currently selling for \$60 a share. The firm is expected to earn \$5.40 per share this year and to pay a year-end dividend of \$3.60.

Calculation of g and EPS

- If investors require a 9% return, what rate of growth must be expected for Spencer?
- If Spencer reinvests earnings in projects with average returns equal to the stock's expected rate of return, then what will be next year's EPS?
(Hint: $g = \text{ROE} \times \text{Retention ratio}$.)

(9-13)
The Cost of Equity and Flotation Costs

Messman Manufacturing will issue common stock to the public for \$30. The expected dividend and the growth in dividends are \$3.00 per share and 5%, respectively. If the flotation cost is 10% of the issue's gross proceeds, what is the cost of external equity, r_e ?

(9-14)
The Cost of Debt and Flotation Costs

Suppose a company will issue new 20-year debt with a par value of \$1,000 and a coupon rate of 9%, paid annually. The tax rate is 40%. If the flotation cost is 2% of the issue proceeds, then what is the after-tax cost of debt? Disregard the tax shield from the amortization of flotation costs.

CHALLENGING
PROBLEMS 15-17

(9-15)
WACC Estimation

On January 1, the total market value of the Tysseland Company was \$60 million. During the year, the company plans to raise and invest \$30 million in new projects. The firm's present market value capital structure, shown below, is considered to be optimal. There is no short-term debt.

Debt	\$30,000,000
Common equity	<u>30,000,000</u>
Total capital	<u>\$60,000,000</u>

New bonds will have an 8% coupon rate, and they will be sold at par. Common stock is currently selling at \$30 a share. The stockholders' required rate of return is estimated to be 12%, consisting of a dividend yield of 4% and an expected constant growth rate of 8%. (The next expected dividend is \$1.20, so the dividend yield is $\$1.20/\$30 = 4\%$.) The marginal tax rate is 40%.