

**ADDITIONAL PROBLEMS FOR CHAPTER 8**

- 8-28** **Supernormal growth stock valuation** A company currently pays a dividend of \$2 per share, $D_0 = \$2$. It is estimated that the company's dividend will grow at a rate of 20 percent per year for the next 2 years, then the dividend will grow at a constant rate of 7 percent thereafter. The company's stock has a beta equal to 1.2, the risk-free rate is 7.5 percent, and the market risk premium is 4 percent. What would you estimate is the stock's current price?
- 8-29** **Constant growth rate, g** A stock is trading at \$80 per share. The stock is expected to have a year-end dividend of \$4 per share ($D_1 = \4.00), which is expected to grow at some constant rate g throughout time. The stock's required rate of return is 14 percent. If you are an analyst who believes in efficient markets, what would be your forecast of g ?
- 8-30** **Supernormal growth stock valuation** Assume that the average firm in your company's industry is expected to grow at a constant rate of 6 percent and its dividend yield is 7 percent. Your company is about as risky as the average firm in the industry, but it has just successfully completed some R&D work that leads you to expect that its earnings and dividends will grow at a rate of 50 percent [$D_1 = D_0(1 + g) = D_0(1.50)$] this year and 25 percent the following year, after which growth should match the 6 percent industry average rate. The last dividend paid (D_0) was \$1.00. What is the value per share of your firm's stock?
- 8-31** **Return on common stock** You buy a share of The Ludwig Corporation stock for \$21.40. You expect it to pay dividends of \$1.07, \$1.1449, and \$1.2250 in Years 1, 2, and 3, respectively, and you expect to sell it at a price of \$26.22 at the end of 3 years.
- Calculate the growth rate in dividends.
 - Calculate the expected dividend yield.
 - Assuming that the calculated growth rate is expected to continue, you can add the dividend yield to the expected growth rate to get the expected total rate of return. What is this stock's expected total rate of return?

