

CHAPTER 5 STOCKS AND THEIR VALUATION

Multiple Choice: Conceptual**Efficient markets hypothesis**

1. Which of the following statements is most correct?
 - a. If a market is strong-form efficient this implies that the returns on bonds and stocks should be identical.
 - b. If a market is weak-form efficient this implies that all public information is rapidly incorporated into market prices.
 - c. If your uncle earns a return higher than the overall stock market, this means the stock market is inefficient.
 - d. Statements a and b are correct.
 - e. None of the above statements is correct.

Efficient markets hypothesis

2. Which of the following statements is most correct?
 - a. Semistrong-form market efficiency implies that all private and public information is rapidly incorporated into stock prices.
 - b. Market efficiency implies that all stocks should have the same expected return.
 - c. Weak-form market efficiency implies that recent trends in stock prices would be of no use in selecting stocks.
 - d. All of the statements above are correct.
 - e. None of the statements above is correct.

Constant dividend

3. A share of common stock has just paid a dividend of \$3.00. If the dividend is expected to be constant, and if investors require an 11 percent rate of return, what is the price of the stock?
4. A share of common stock has just paid a dividend of \$3.00. If the price of the stock is \$33, what is the required rate of return?
5. A share of common stock sells for \$50. If the dividend is expected to be constant, and if investors require an 10 percent rate of return, what is the dividend on this stock?

Constant growth

6. A share of common stock has just paid a dividend of \$3.00. If the expected long-run growth rate for this stock is 5 percent, and if investors require an 11 percent rate of return, what is the price of the stock?
7. A share of common stock has just paid a dividend of \$2.00. If the expected long-run growth rate for this stock is 15 percent, and if investors require a 19 percent rate of return, what is the price of the stock?
8. A share of common stock is expected to pay a dividend of \$2.10 (i.e., $D_1 = \$2.10$) next year. If the expected long-run growth rate for this stock is 15 percent, and if investors require a 20 percent rate of return, what is the price of the stock?
9. Thames Inc.'s most recent dividend was \$2.40 per share (i.e., $D_0 = \$2.40$). The dividend is expected to grow at a rate of 6 percent per year. The risk-free rate is 5 percent and the return on the market is 9 percent. If the company's beta is 1.3, what is the price of the stock today?

10. Assume that you plan to buy a share of XYZ stock today and to hold it for 2 years. Your expectations are that you will not receive a dividend at the end of Year 1, but you will receive a dividend of \$9.25 at the end of Year 2. In addition, you expect to sell the stock for \$150 at the end of Year 2. If your expected rate of return is 16 percent, how much should you be willing to pay for this stock today?
11. Albright Motors is expected to pay a year-end dividend of \$3.00 a share ($D_1 = \3.00). The stock currently sells for \$30 a share. The required (and expected) rate of return on the stock is 16 percent. If the dividend is expected to grow at a constant rate, g , what is g ?
12. Albright Motors is expected to pay a year-end dividend of \$4.00 a share ($D_1 = \4.00). The stock currently sells for \$40 a share. The required (and expected) rate of return on the stock is 15 percent. If the dividend is expected to grow at a constant rate, g , what is g ?
13. Cartwright Brothers' stock is currently selling for \$40 a share. The stock is expected to pay a \$2 dividend at the end of the year. The stock's dividend is expected to grow at a constant rate of 7 percent a year forever. The risk-free rate (r_{RF}) is 6 percent and the market risk premium ($r_M - r_{RF}$) is also 6 percent. What is the stock's beta?

Non-constant growth

14. The last dividend paid by Klein Company was \$1.00. Klein's growth rate is expected to be a constant 5 percent for 2 years, after which dividends are expected to grow at a rate of 10 percent forever. Klein's required rate of return on equity (r_s) is 12 percent. What is the current price of Klein's common stock?
15. The last dividend paid by a company was \$2.20. Klein's growth rate is expected to be 10 percent for one year, after which dividends are expected to grow at a rate of 6 percent forever. The company's stockholders require a rate of return on equity (r_s) of 11 percent. What is the current price of the stock?
16. Stewart Industries expects to pay a \$3.00 per share dividend on its common stock at the end of the year ($D_1 = \$3.00$). The dividend is expected to grow 25 percent a year until $t = 3$, after which time the dividend is expected to grow at a constant rate of 5 percent a year (i.e., $D_3 = \$4.6875$ and $D_4 = \$4.9219$). The stock's beta is 1.2, the risk-free rate of interest is 6 percent, and the rate of return on the market is 11 percent. What is the company's current stock price?
17. Waters Corporation has a stock price of \$20 a share. The stock's year-end dividend is expected to be \$2 a share ($D_1 = \2.00). The stock's required rate of return is 15 percent and the stock's dividend is expected to grow at the same constant rate forever. What is the expected price of the stock seven years from now?