

3. American Health Systems currently has 6,400,000 shares of stock outstanding and will report earnings of \$10 million in the current year. The company is considering the issuance of 1,700,000 additional shares that will net \$30 per share to the corporation.
- a.* What is the immediate dilution potential for this new stock issue?
 - b.* Assume that American Health Systems can earn 9 percent on the proceeds of the stock issue in time to include them in the current year's results. Calculate earnings per share. Should the new issue be undertaken based on earnings per share?

14. Winston Sporting Goods is considering a public offering of common stock. Its investment banker has informed the company that the retail price will be \$16.85 per share for 550,000 shares. The company will receive \$15.40 per share and will incur \$180,000 in registration, accounting, and printing fees.
- a.* What is the spread on this issue in percentage terms? What are the total expenses of the issue as a percentage of total value (at retail)?
 - b.* If the firm wanted to net \$15.99 million from this issue, how many shares must be sold?

3. Midland Corporation has a net income of \$19 million and 4 million shares outstanding. Its common stock is currently selling for \$48 per share. Midland plans to sell common stock to set up a major new production facility with a net cost of \$21,120,000. The production facility will not produce a profit for one year, and then it is expected to earn a 13 percent return on the investment. Stanley Morgan and Co., an investment banking firm, plans to sell the issue to the public for \$44 per share with a spread of 4 percent.

- a.* How many shares of stock must be sold to net \$21,120,000? (Note: No out-of-pocket costs must be considered in this problem.)
- b.* Why is the investment banker selling the stock at less than its current market price?
- c.* What are the earnings per share (EPS) and the price-earnings ratio before the issue (based on a stock price of \$48)? What will be the price per share immediately after the sale of stock if the P/E stays constant?
- d.* Compute the EPS and the price (P/E stays constant) after the new production facility begins to produce a profit.
- e.* Are the shareholders better off because of the sale of stock and the resultant investment? What other financing strategy could the company have tried to increase earnings per share?

1. The Pioneer Petroleum Corporation has a bond outstanding with an \$85 annual interest payment, a market price of \$800, and a maturity date in five years. Find the following:

- a. The coupon rate.
- b. The current rate.
- c. The yield to maturity.

11. A 17-year, \$1,000 par value zero-coupon rate bond is to be issued to yield 7 percent.
- What should be the initial price of the bond? (Take the present value of \$1,000 for 17 years at 7 percent.)
 - If immediately upon issue, interest rates dropped to 6 percent, what would be the value of the zero-coupon rate bond?
 - If immediately upon issue, interest rates increased to 9 percent, what would be the value of the zero-coupon rate bond?
12. A 10-year, \$1,000 par value zero-coupon rate bond is to be issued to yield 11 percent. The bond is currently selling for \$402 and will mature in 10 years.

15. A \$1,000 par value bond was issued 25 years ago at a 12 percent coupon rate. It currently has 15 years remaining to maturity. Interest rates on similar obligations are now 8 percent.
- What is the current price of the bond? (Look up the answer in Table 16-2.)
 - Assume Ms. Bright bought the bond three years ago when it had a price of \$1,050. What is her dollar profit based on the bond's current price?
 - Further assume Ms. Bright paid 30 percent of the purchase price in cash and borrowed the rest (known as buying on margin). She used the interest payments from the bond to cover the interest costs on the loan. How much of the purchase price of \$1,050 did Ms. Bright pay in cash?
 - What is Ms. Bright's percentage return on her cash investment? Divide the answer to part *b* by the answer to part *c*.
 - Explain why her return is so high.