# Chapter 5—Valuing Stocks

**MULTIPLE CHOICE**

1. The first public sale of company stock to outside investors is called a/an
   a. seasoned equity offering.
   b. shareholders' meeting.
   c. initial public offering.
   d. proxy fight.

   ANS: C DIF: E REF: 5.2 Primary Markets and Issuing New Securities

2. Which statement about common shareholders is incorrect?
   a. Shareholders only have a residual claim.
   b. Shareholders have precedence over all other claimholders in the case of bankruptcy.
   c. Shareholders have a voting right.
   d. Shareholders are the ultimate owners of a corporation.

   ANS: B DIF: E
   REF: 5.1 The Essential Features of Preferred and Common Stock

3. What is the market capitalization of a company?
   a. The market value of all outstanding debt.
   b. The book value of the company's debt.
   c. The market value of all outstanding shares.
   d. The book value of the company's total equity.

   ANS: C DIF: E
   REF: 5.1 The Essential Features of Preferred and Common Stock

4. Which of the following is not a difficulty associated with valuing common stock?
   a. Common stock does not have a specific expiration date.
   b. The required rate of return is difficult to estimate.
   c. Common stock does not promise a fixed cash flow stream.
   **d.** All of the above are considered difficulties associated with valuing common stock.

   ANS: D DIF: E REF: 5.4 Stock Valuation

5. Which of the following stock exchanges has the most strict listing requirements?
   a. American Stock Exchange
   b. NASDAQ
   c. New York Stock Exchange
   d. Pacific Stock Exchange

   ANS: C DIF: E REF: 5.3 Secondary Markets for Equity Securities

6. Bavarian Sausage, Inc. has preferred stock outstanding. This stock pays a semiannual dividend of $1.25. If the next dividend is paid six months from now and the annual required return is 10%, what should be the value of the preferred stock?
   a. $6.25
   b. $25
   c. $12.50
   d. $50.00

ANS: B
1.25/(.10/2) = 25

DIF: M REF: 5.4 Stock Valuation

7. Bavarian Sausage just paid a $1.57 dividend and investors expect that dividend to grow by 5% each year forever. If the required return on the stock investment is 14%, what should be the price of the stock today.
   a. $11.21
   b. $18.32
   c. $17.44
   d. $25.37

   ANS: B
   1.57(1.05)/(.14-.05) = 18.32

   DIF: E REF: 5.4 Stock Valuation

8. Bavarian Sausage is expected to pay a $1.57 dividend next year and investors expect that dividend to grow by 5% each year forever. If the required return on the stock investment is 14%, what should be the price of the stock today.
   a. $18.32
   b. $17.44
   c. $11.21
   d. $25.37

   ANS: B
   1.57/(.14-.05) = 17.44

   DIF: E REF: 5.4 Stock Valuation

9. Bavarian Sausage just paid a $1.57 dividend and investors expect that dividend to grow by 5% each year forever. If the required return on the stock investment is 14%, what should be the price of the stock in 5 years?
   a. $18.32
   b. $23.33
   c. $17.44
   d. $22.26

   ANS: B
   D5 = 1.57^5 = 2.00
   P5 = 2.00(1.05)/(.14-.05) = 23.33

   DIF: M REF: 5.4 Stock Valuation

10. Bavarian Sausage is expected to pay a $1.57 dividend next year and investors expect that dividend to grow by 5% each year forever. If the required return on the stock investment is 14%, what should be the price of the stock in 5 years?
    a. $18.32
    b. $22.28
    c. $21.22
    d. $17.44

    ANS: B
    D5 = 1.57(1.05)^4 = 1.91

P5 = 1.91(1.05)/(.14-.05) = 22.28

DIF: M REF: 5.4 Stock Valuation

11. Smith Construction, Inc. just paid a $2.78 dividend. The dividend is expected to grow by 4% each year for the next three years. After that the company will never pay another dividend ever again. If your required return on the stock investment is 10%, what should the stock sell for today?
    a. $7.46
    b. $28.91
    c. $46.33
    d. $15.63

    ANS: A
    D1 = 2.78(1.04) = 2.89
    D2 = 2.89(1.04) = 3.01
    D3 = 3.01(1.04) = 3.13
    P = 2.89/1.1 + 3.01/1.1^2 + 3.13^3 = 7.46

    DIF: H REF: 5.4 Stock Valuation

12. Smith Construction, Inc. is expected to pay a $2.78 dividend next year. The dividend is expected to grow by 4% each year for the next three years. After that the company will never pay another dividend ever again. If your required return on the stock investment is 10%, what should the stock sell for today?
    a. $7.46
    b. $28.91
    c. $35.06
    d. $9.31

    ANS: D
    D1 = 2.78
    D2 = 2.78(1.04) = 2.89
    D3 = 2.89(1.04) = 3.01
    D4 = 3.01(1.04) = 3.13
    P = 2.78/1.1 + 2.89/1.1^2 + 3.01/1.1^3 + 3.13/1.1^4 = 9.31

    DIF: H REF: 5.4 Stock Valuation

13. Miller Juice, Inc. is not paying a dividend right now, but is expected to pay a $4.56 dividend two years from now. Investors expect that dividend to grow by 4% every year forever. If the required return on the stock investment is 14%, what should be the price of Miller Juice stock today?
    a. $53.69
    b. $36.49
    c. $47.42
    d. $43.84

    ANS: B
    P2 = 4.56(1.04)/(.14-.04) = 47.42
    P = (4.56+47.42)/1.14^2 = 36.49

    DIF: M REF: 5.4 Stock Valuation

14. Miller Juice, Inc. just paid a $3 dividend. The company is expected to pay a $3.50 dividend next year and a $4 dividend in two years. After that, dividends are expected to grow at 5% forever. If investors require a return of 12% on the investment, what should Miller Juice stock sell for today?

a. $54.15
b. $49.63
c. $57.15
d. $60.00

ANS: A
P2 = 4(1.05)/(.12-.05) = 60
P = 3.5/1.12 + (4+60)/1.12^2 = 54.15

DIF: M REF: 5.4 Stock Valuation

15. Miller Juice, Inc. is expected to pay a $3.00 dividend next year and a $4 dividend in two years. After that, dividends are expected to grow at 5% forever. If investors require a return of 12% on the investment, what should Miller Juice stock sell for today?
a. $60.00
b. $54.15
c. $49.39
d. $53.70

ANS: D
P2 = 4(1.05)/(.12-.05) = 60
P = 3/1.12 + (60+4)/1.12^2 = 53.70

DIF: M REF: 5.4 Stock Valuation

16. Miller Juice traditionally pays out 35% of its earnings as dividends. Last year Miller's earnings available for common stockholders were $256 million and the book value of its equity was $678 million. What is Miller's growth rate?
a. 24.54%
b. 35.00%
c. 37.76%
d. 13.22%

ANS: A
(256/678)(1-.35) = .2454

DIF: M REF: 5.4 Stock Valuation

17. Miller Juice traditionally retains 65% of its earnings for future investments. Last year Miller's return on equity was 15%. What is Miller's growth rate?
a. 15.00%
b. 9.75%
c. 5.25%
d. 18.38%

ANS: B
.15(.65) = .0975

DIF: E REF: 5.4 Stock Valuation

18. Bavarian Sausage free cash flow for the current year is $6,750,000 and investors believe that the company's free cash flow will grow by 5% annually forever. If Bavarian sausage's weighted average cost of capital is 15%, what is their enterprise value?
a. $67,500,000
b. $85,350,000

c. $56,780,000
d. $70,875,000

ANS: B
6750000(1.05)/(.15-.05) = 85350000

DIF: E REF: 5.5 Valuing the Enterprise - The Free Cash Flow Approach

19. Bavarian Sausage's enterprise value is $75,000,000, the market value of its debt is $23,000,000 and the company does not have any preferred stock outstanding. If the company has 3,500,000 shares outstanding, what should be Bavarian Sausage's stock price?
a. $21.43
b. $14.86
c. $28.00
d. $6.57

ANS: C
(75000000-23000000)/3500000 = 14.86

DIF: E REF: 5.5 Valuing the Enterprise - The Free Cash Flow Approach

20. Bavarian Sausage's enterprise value is $75,000,000, the market value of its debt is $23,000,000 and the market value of its preferred stock is $5,000,000. If the company has 3,500,000 shares outstanding, what should be Bavarian Sausage's stock price?
a. $14.86
b. $21.43
c. $13.43
d. $6.57

ANS: C
(75000000-23000000-5000000)/3500000 = 13.43

DIF: M REF: 5.5 Valuing the Enterprise - The Free Cash Flow Approach

21. Bavarian Sausage is expected to pay a $1.57 dividend next year . If the required return on the stock investment is 14%, and the stock currently sells for $34.37, what is the implied dividend growth rate for this company?
a. 6.37%
b. 9.43%
c. 12.68%
d. 15.76%

ANS: B
34.37 = 1.57/(.14-g)

g = .0943

DIF: M REF: 5.4 Stock Valuation

22. Bavarian Sausage just paid a $1.57 dividend. If the required return on the stock investment is 14%, and the stock currently sells for $34.37, what is the implied dividend growth rate for this company?
a. 9.02%
b. 6.39%
c. 12.68%
d. 9.43%

ANS: A
34.37 = 1.57(1+g)/(.14-g)
g = .0902

DIF: M REF: 5.4 Stock Valuation

NARRBEGIN: Miller Juice
**Miller Juice**
Miller Juice is a young company that currently does not pay a dividend. The company retains all their earnings to finance their growth. However, ten years from now the company is expected to start paying a $1.50 dividend. According to research reports the dividend should then grow by 5% annually forever.
NARREND

23. If the required return on the stock investment is 13%, what should be Miller's stock price today?
    a. $19.69
    b. $6.24
    c. $15.62
    d. $10.37

    ANS: B
    P10 = 1.5(1.05)/(.13-.05) = 19.69

    P = (1.5+19.69)/(1.13)^10 = 6.24

    DIF: M REF: 5.4 Stock Valuation NAR: Miller Juice

24. If the required return on the stock investment is 13%, what should be Miller's stock price five years from today?
    a. $11.50
    b. $6.24
    c. $19.69
    d. $16.28

    ANS: A
    P10 = 1.50(1.05)/(.13-.05) = 19.69
    P5 = (1.5 + 19.69)/(1.13)^5 = 11.50

    DIF: H REF: 5.4 Stock Valuation NAR: Miller Juice

25. If the required return on the stock investment is 13%, what should be Miller's stock price immediately after the first dividend was paid?
    a. $6.24
    b. $19.69
    c. $16.28
    d. $21.19

    ANS: B
    P10 = 1.50(1.05)/(.13-.05) = 19.69

    DIF: H REF: 5.4 Stock Valuation NAR: Miller Juice

26. Which of the following investors can force a firm into bankruptcy court if the firm does not pay the expected cash flow to the investor?

a. common equity investor
b. preferred equity investor
c. debt investor
**d.** none of the above

ANS: C DIF: E
REF: 5.1 The Essential Features of Preferred and Common Stock

27. Which of the following securities poses the greatest financial risk for the investor?
a. common equity
b. preferred equity
c. debt
d. convertible debt

ANS: A DIF: E
REF: 5.1 The Essential Features of Preferred and Common Stock

28. MeFirst Corporation has a cumulative preferred share issue that is suppose to pay a quarterly dividend of $2. MeFirst failed to pay 3 consecutive dividends to investors and then managed to pay a common share dividend the very next quarter. How much cash must MeFirst have paid to each preferred share holder at that time?
a. $2 per share
b. $6 per share
c. $8 per share
d. $10 per share

ANS: C DIF: M
REF: 5.1 The Essential Features of Preferred and Common Stock

29. Retained earnings represents
a. a pool of cash that the firm can use should a need for cash arise.
b. the increased market value, due to managements efforts, of all of the firms equity securities issued.
c. earnings that a firm reinvested during the firm's history.
d. the cumulative amount of cash that the firm has paid out in dividends.

ANS: C DIF: M
REF: 5.1 The Essential Features of Preferred and Common Stock

30. Usually, only the riskiest type of firms will offer securities to the general public through
a. a firm-comitment offering.
b. a competitive offering.
c. a negotiated offering.
d. a best-efforts arrangement.

ANS: D DIF: M REF: 5.2 Primary Markets and Issuing New Securities

31. Which of the following is not the responsibility of the lead underwriter for an equity issuance?
a. price stabilization of the issue
b. exercises discretion over the distribution of shares for sale among the syndicate and the selling group
c. must buy the shares in the green shoe option
d. many times serves as the market maker for trading in the issuers securities

ANS: C DIF: M REF: 5.2 Primary Markets and Issuing New Securities

32. Which of the following is not an important consideration when an underwriter is trying to establish the price for an initial public offering?
    a. the underwriter's reputation
    b. the value of the firm
    c. the demand for the securities of the issuer
    d. providing the absolute maximum price possible for the issuer of the shares

    ANS: D DIF: H REF: 5.2 Primary Markets and Issuing New Securities

33. The vast majority of initial public offerings have underwriting spreads that cost the firm what percentage of the net capital raised?
    a. 0.5%
    b. 7.0%
    c. 7.5%
    d. 8.0%

    ANS: C
    The firm will net 93 out of each 100 dollars raised. Therefore, the cost to the firm is 7/93 = .075

    DIF: H REF: 5.2 Primary Markets and Issuing New Securities

34. The Over-the-Counter Market for trading equity securities is located
    a. in New York City.
    b. in Chicago.
    c. in Boston.
    **d.** none of the above

    ANS: D DIF: E REF: 5.3 Secondary Markets for Equity Securities

35. The largest stock exchange in the world is
    a. the London Stock Exchange.
    b. the New York Stock Exchange.
    c. the NASDAQ.
    d. the Paris Bourse.

    ANS: B DIF: E REF: 5.3 Secondary Markets for Equity Securities

36. If viewing a stock quote from the Wall Street Journal, the columns labeled "HI" and "LO" refer to
    a. the highest and lowest prices at which the stock was sold in the last fifty-two weeks.
    b. the highest and lowest prices at which the stock was sold in the last six months.
    c. the highest and lowest prices at which the stock was sold in the last month.
    d. the highest and lowest prices at which the stock was purchased in the last month.

    ANS: A DIF: M
    REF: 5.3 Secondary Markets for Equity Securities, Market Reporting

37. When valuing a preferred stock, the type of security that we treat the preferred stock like, for valuation purposes, is
    a. a bond.
    b. a perpetuity.
    c. a common stock.
    **d.** none of the above.

    ANS: B DIF: E REF: 5.4 Stock Valuation

38. AlwaysAround Co. has just issued a prefered stock that pays an annual $4 dividend. The first dividend will be received one year from today. If the required rate of return on this stock is 5%, then what is the price of the stock?
    a. $3.81
    b. $4.20
    c. $80.00
    **d.** none of the above

    ANS: C DIF: E REF: 5.4 Stock Valuation

39. The Perp, Inc. has a preferred stock that will pay its next annual $5 dividend one year from now. The current price of the stock is $110. What is the required rate of return on the stock?
    a. 4.55%
    b. 4.00%
    c. 5.50%
    d. 22.00%

    ANS: A
    110 = 5/r ===> r = .04545

    DIF: E REF: 5.4 Stock Valuation

40. You are approached about purchasing a share of common stock in a company that will definitely go out of business exactly 2 years from today. The company is anticipated to pay a $10 dividend one year from now and a $15 dividend two years from now (immediately before it goes out of business). What price are you willing to pay for the stock if the required rate of return on the stock is 5%?
    a. $22.68
    b. $23.13
    c. $23.81
    d. $25.00

    ANS: B
    $10/1.05 + 15/ (1.05)^2 = 23.13$

    DIF: E REF: 5.4 Stock Valuation

41. Static Utility Company anticipates its revenues, and consequently its common stock dividends, will remain flat forever. It currently pays an annual dividend of $20 per year. If it pays the next dividend exactly one year from today, then what is the price of Static's common shares if the required rate of return is 12%?
    a. $24.00
    b. $40.00
    c. $166.67
    d. $200.00

    ANS: C
    20/.12 = 166.66666

    DIF: E REF: 5.4 Stock Valuation

42. ConsGrough, Inc. has increased its annual common dividend by 3% in each of the years that the company has existed. If you believe that the company can continue to do so indefinitely, then what price would you be will to pay for ConsGrough if the required rate of return is 6% and the dividend that it paid yesterday was $5?
    a. $85.83

b. $166.67
c. $171.67
d. $200.00

ANS: C
(5 x 1.03)/(.06 - .03)

DIF: M REF: 5.4 Stock Valuation

43. ConsGrough, Inc. has increased its annual common dividend by 3% in each of the years that the company has existed. If you believe that the company can continue to do so indefinitely, then what is the required rate of return if the price of ConsGrough is $171.67 and the dividend that it paid yesterday was $5?
a. .029
b. .03
c. .06
**d.** none of the above

ANS: C
$171.67 = (5 \times 1.03) / (r - .03)$ =======> r = .06

DIF: M REF: 5.4 Stock Valuation

44. Preditcable Corp has increased its annual dividend each year of its life by 2% (and will continue to do so indefinitely). If Predictable paid its annual dividend yesterday of $8 and the cost of capital is currently 4%, then by what amount will the stock price decrease by if the cost of capital increases to 5%?
a. $408.00
b. $272.00
c. $136.00
**d.** none of the above

ANS: C
Now: $(8 \times 1.02) / (.04-.02) = 408.00$

Later: $(8 \times 1.02) / (.05-.02) = 272.00$

Decrease = 408 - 272 = 136

DIF: H REF: 5.4 Stock Valuation

45. You are asked by the Chief Financial Officer of your firm to predict what the firm's stock price will be exactly 4 years from today. If your firm is expected to grow at 3% indefinitely and the cost of capital is 10% while the expected annual dividend one year from today is $10, then what should be the price of your firm's stock 4 years from today?
a. $142.86
b. $160.79
c. $112.55
**d.** none of the above

ANS: B
$P4 = (D_1 \times (1+g)^4) / (r - g)$

$P4 = (10 \times (1.03)^4) / (.1 - .03) = 160.79$

DIF: H REF: 5.4 Stock Valuation

46. Last year Sample Corp. had earnings of $3 a share based upon a common share book value of $25 per share. If Sample paid a dividend of $1.50 last year then estimate Samples growth rate.
a. 6%
b. 12%
c. 50%
**d.** none of the above

ANS: A
$g = rr \times ROE = (1.5/3) \times (3/25) = .06$

DIF: M REF: 5.4 Stock Valuation

47. Balance Corp. has a weighted average cost of capital equal to 5.5%. If the firm is financed with 25% equity and 75% debt and if the after-tax of that debt is 4%, then what is the cost of equity for the firm?
a. .025
b. .06
c. .1
**d.** none of the above

ANS: C
(.25)(cost of equity) + (.75)(.04) = .055 =====> cost of equity = .1

DIF: M REF: 5.5 Valuing the Enterprise - The Free Cash Flow Approach

48. Borrower Corp. has the ability to produce $4,000,000 of free cash flow next year and expects that to grow by 2% per year thereafter. If Borrowers weighted average cost of capital is 13%, then what is the value of Borrower?
a. $40,000,000.00
b. $30,769,230.77
c. $36,363,636.36
**d.** none of the above

ANS: C
4,000,000 / (.13 - .02) = 36,363,636.36

DIF: M REF: 5.5 Valuing the Enterprise - The Free Cash Flow Approach

49. Equal, Inc. is financed with equal portions of debt and equity. The after-tax cost of debt is 6% and the cost of equity is 8%. If Equal expects next year's free cash flow to be $25,000,000 with growth of 3% thereafter, what is the value of Equal, Inc. to the nearest dollar? Equal's marginal tax rate is 35%.
a. $357,142,857
b. $625,000,000
c. $833,333,333
**d.** none of the above

ANS: B
WACC: (.5)(.08) + (.5)(.06) = .07

Value = 25,000,000/(.07 - .03) = 625,000,000

DIF: M REF: 5.5 Valuing the Enterprise - The Free Cash Flow Approach

50. Undetermined Corporation currently has a 10% weighted average cost of capital. It is concerned that its after-tax cost of debt will increase in the near future by 2%. If Undetermined finances its projects with 30% debt, then what will the new weighted average cost of capital for Undetermined be?
    a. 12.0%
    b. 13. %
    c. 10.6%
    **d.** none of the above

    ANS: C
    .10 + (.3)(.02) = .106

    DIF: M REF: 5.5 Valuing the Enterprise - The Free Cash Flow Approach

51. Which is TRUE concerning preferred stock?
    a. Preferred stock is considered debt on the company balance sheet.
    b. Preferred stock holders have voting rights for the company board of directors.
    c. Preferred stock payments are variable like common stock.
    d. Preferred stock is viewed as less risky than a firm's common stock.

    ANS: D DIF: E
    REF: 5.1 The Essential Features of Preferred and Common Stock

    NARRBEGIN: Kramerica, Inc.
    **Kramerica, Inc.**
    Kramerica Inc. just paid its investors a dividend of $2.00. This growing company expects dividends to grow at 20% for the next 2 years. After year 2, dividends are expected to grow constantly at 5% per year. Investors require a 15% return on Kramerica stock.
    NARREND

52. What will be the dividend in two years for Kramerica?
    a. $2.21
    b. $2.40
    c. $2.52
    d. $2.88

    ANS: D
    Dividend in year 2 = $2.00*1.20*1.20= $2.88

    DIF: E REF: 5.4 Stock Valuation NAR: Kramerica, Inc.

53. What is the equation to price Kramerica stock?
    a. $P_0 = \frac{\$200}{1.15} + \frac{\$240}{1.15} + \frac{\$2.88}{1.15} + \frac{\$30.24}{1.15}$
    b. $P_0 = \frac{\$2.40}{(1.15)} + \frac{\$2.88}{(1.15)^2} + \frac{\$30.24}{(1.15)^3}$
    c. $P_0 = \$2.00 + \frac{\$2.40}{(1.15)} + \frac{\$33.12}{(1.15)^2}$
    d. $P_0 = \frac{\$2.40}{(1.15)} + \frac{\$33.12}{(1.15)^2}$

    ANS: D
    Selling price at year 2 = $2.00*(1.20)^2*(1.05)/(.15-.05)= $30.24

DIF: M REF: 5.4 Stock Valuation NAR: Kramerica, Inc.

NARRBEGIN: ABC Corp.
**ABC Corporation**
ABC Corporation just paid a dividend of $1.50 a share. The dividend is expected to grow at 10% a year for the next 2 years, and the 5% per year thereafter. The required return to invest in ABC stock is 12.50%.
NARREND

54. What is the expected dividend for ABC in year 2?
    a. $1.65
    b. $1.73
    c. $1.82
    d. $1.91

    ANS: C
    Dividend in year 2 = $1.50*1.10*1.10 = $1.82

    DIF: E REF: 5.4 Stock Valuation NAR: ABC Corp.

55. What is the intrinsic value (or current price) of ABC?
    a. $21.00
    b. $22.98
    c. $23.41
    d. $24.48

    ANS: B
    Dividend in year 2 = $1.50*1.10*1.10 = $1.82
    Selling price at year 2 = $1.82 * 1.05 / (.125 - .05) = $25.41

    Price = PV of cash flows = 1.65/1.125 + (1.82+25.41)/(1.125)^2

    DIF: H REF: 5.4 Stock Valuation NAR: ABC Corp.

56. Suppose you want to buy ABC and hold it for the next 4 years. What would the selling price be for ABC in 4 years, assuming that none of our assumptions change?
    a. $28.01
    b. $28.76
    c. $29.40
    d. $30.80

    ANS: A
    Dividend in year 2 = $1.50*1.10*1.10 = $1.82
    Dividend in year 4 = $1.50*1.10*1.10*1.05*1.05 =$2.00
    Selling price at year 4 = $2.00 * 1.05 / (.125 - .05) = $28.01

    DIF: H REF: 5.4 Stock Valuation NAR: ABC Corp.

57. A stock just paid a $2.00 dividend this morning. You believe that dividends will grow constantly starting today at a rate of 5% per year. If you require a 10% to own this stock, what is a fair price to pay for the stock?
    a. $40.00
    b. $41.00
    c. $42.00
    d. $43.00

ANS: C
=$2*1.05/(.1-.05) = $42.00

DIF: M REF: 5.4 Stock Valuation

58. Suppose that you estimate $D_1$=$0.72, $D_2$=$0.76, $D_3$=$0.84, and $D_4$=$0.88 for a stock. You also estimate that, beginning at year 4, dividends will grow continually at a rate of 2% per year. If the required return to hold the stock is 14.6%, what is the stock's current price?
a. $6.20
b. $6.25
c. $6.30
d. $6.40

ANS: D
Selling price at year 4 = $0.88*1.02/(.146-02) = $7.12

Price = $.72/1.146 + $.76/(1.146)^2 + $.84/(1.146)^3 + $8.00/(1.146)^4

DIF: M REF: 5.4 Stock Valuation

59. Suppose you plan on buying a stock today and holding it for one year. The stock will pay you a dividend EXACTLY in one year on the day you will sell. You believe the selling price in one year will be $27.10, while the stock will also pay a dividend of $2.40 in one year. If you require 16.60% return to invest in the stock, what is a fair price to pay today?
a. $25.50
b. $25.30
c. $23.24
d. $21.18

ANS: B
Price = (27.10+2.40)/(1.166) = $25.30

DIF: E REF: 5.4 Stock Valuation

NARRBEGIN: Bulldog Industries
**Bulldog Industries**
An analyst seeks to determine the value of Bulldog Industries. After careful research, the analyst believes that free cash flows for the firm will be $80 million in 2004 and will grow at 10% for 2005 and 2006. The free cash flows will grow at a rate of 5% after 2006.
NARREND

60. If Bulldog Industries has a weighted average cost of capital of 10%, find the market value of the firm. (assume that we are at January 1, 2004)
a. $2,085.26
b. $1,946.52
c. $1,745.45
d. $1,665.45

ANS: C
FCF 2005 = $80*1.10 = $88
FCF 2006 = $88 * 1.10 = $96.80
TV = $96.80 * 1.05 / (.1-.05) = $2,032.80

MV of FIRM = $80/1.10 + $88/(1.10)^2 + ($96.80+$2,032.80)/(1.10)^3

DIF: H REF: 5.5 Valuing the Enterprise - The Free Cash Flow Approach
NAR: Bulldog Industries

61. The market value of Bulldog Industries debt and preferred stock is $934 million. If the firm has a weighted average cost of capital of 10%, find the equity value of the firm's stock. The firm has 50 million shares of stock outstanding. (assume that we are at January 1, 2004…)
    a. $14.63
    b. $16.23
    c. $17.03
    d. $22.63

    ANS: B
    FCF 2005 = $80*1.10 = $88
    FCF 2006 = $88 * 1.10 = $96.80
    TV = $96.80 * 1.05 / (.1-.05) = $2,032.80

    MV of FIRM = $80/1.10 + $88/(1.10)^2 + ($96.80+$2,032.80)/(1.10)^3 = $1,745.45

    Equity value = $1,745.45 - $934 = $811.45
    Per share = $811.45/50 =$16.23

    DIF: H REF: 5.5 Valuing the Enterprise - The Free Cash Flow Approach
    NAR: Bulldog Industries

62. A firm plans on paying a constant dividend of $2 per share into the foreseeable future. If investors seek a 12% return to hold the firm's stock, what is fair value for the company's stock?
    a. $13.67
    b. $15.67
    c. $16.67
    d. $18.67

    ANS: C
    =$2/.12

    DIF: M REF: 5.4 Stock Valuation

63. Which is NOT a feature of common stock?
    a. Voting rights
    b. Priority over debt holders for liquidation rights
    c. Rights to dividends and other distributions
    d. Majority voting system

    ANS: B DIF: E
    REF: 5.1 The Essential Features of Preferred and Common Stock

64. After careful research, you find the present value of the free cash flows of a firm to be $100 million. The market value of the firm's preferred stock is $15 million, while the market value of the firm's debt is $40 million. If the firm has 2 million shares of stock outstanding, what is the equity value per share?
    a. $20.00
    b. $22.50
    c. $27.50
    d. $30.00

ANS: B
Equity value per share = ($100 - $15 - $40)/2 =$22.5

DIF: E REF: 5.5 Valuing the Enterprise - The Free Cash Flow Approach

65. You estimate the following cash flows for Nick's Incorporated: $D_1$=$0.83, $D_2$=$0.87, $D_3$=$0.96, and $P_3$=$27.40. If the required return to hold Nick's stock is 15.1%, what is the price today for Nick's stock?
    a. $18.31
    b. $18.85
    c. $19.98
    d. $20.35

    ANS: C
    Price = $.83/1.151 + $.87/(1.151)^2 + ($0.96+$27.40)/(1.151)^3

    DIF: M REF: 5.4 Stock Valuation

66. What term refers to the number of shares issued by a firm multiplied by the current price of the shares on the secondary market?
    a. Financial leverage
    b. Market capitalization
    c. Additional paid-in capital
    d. Liquidation value

    ANS: B DIF: E
    REF: 5.1 The Essential Features of Preferred and Common Stock

67. What is the term applied to several investment banks joining together to bring an IPO to market to limit risk exposure?
    a. Selling group
    b. Underwriting portfolio
    c. Investment bank portfolio
    d. Underwriting syndicate

    ANS: D DIF: E REF: 5.2 Primary Markets and Issuing New Securities

68. What is the largest (trading volume) over-the-counter (OTC) market in the United States?
    a. AMEX
    b. NYSE
    c. Nasdaq
    d. Chicago Board of Trade

    ANS: C DIF: E REF: 5.3 Secondary Markets for Equity Securities

69. An investor bought a stock this morning for $50, and plans to sell the stock one year from today. The investor believes the stock will pay a $1 dividend during the next year, and that the stock can be sold for $53 in one year. Given the investor's beliefs, what is the return from investing in this stock for the next year?
    a. 4%
    b. 6%
    c. 8%
    d. 10%

    ANS: C

Return = ($53-$50 + $1)/ $50

DIF: E REF: 5.4 Stock Valuation

70. A share of preferred stock pays a $2 annual dividend, but pays the dividend in four equal quarterly installments. Investors seek a 12% annual percentage return on the investment. What price should the preferred stock trade?
a. $4.17
b. $6.67
c. $8.50
d. $16.67

ANS: D
=$0.50/3%

DIF: E REF: 5.4 Stock Valuation

71. Stone Cold Incorporated reported net income of $10 million for 2003. In addition, shareholder equity for the firm was $80 million at the end of 2003. The company was able to pay $3 million out as dividends to the shareholders for 2003. After 2003, excess paid-in-capital was $60 million. Given this information, what is the growth rate available for Stone Cold?
a. 3.75%
b. 5.00%
c. 7.50%
d. 8.75%

ANS: D
ROE = $10/$80 = .125
rr = 1 - ($3/$10) = .70

Growth = .7*.125

DIF: M REF: 5.4 Stock Valuation

72. For a stock pricing model, an analyst selects 10% as the sustainable growth rate in dividends for a firm. Given that the firm pays out 40% of net income as dividends each year, what is the return on shareholder equity for this firm?
a. 2.50%
b. 4.00%
c. 10.00%
d. 16.67%

ANS: D
g = .10
rr = .60
g = rr*ROE
ROE = .1/.6

DIF: E REF: 5.4 Stock Valuation

73. A stock is expected to pay a dividend of $3.00 in one year. To purchase the stock, investors seek a 15% annual return. If the stock is currently trading at $60, what is the implied constant growth rate in dividends for the future?
a. 5%
b. 10%

c. 15%
d. 20%

ANS: B
$60 = $3/(.15-g)
.15-g = $3/$60

DIF: M REF: 5.4 Stock Valuation

NARRBEGIN: Normaltown Corporation
**Normaltown Corporation**
An analyst has predicted the free cash flows for Normaltown Corporation for the next four years:

| YEAR | FCF |
|---|---|
| 2004 | $10 million |
| 2005 | $15 million |
| 2006 | $22 million |
| 2007 | $29 million |

NARREND

74. After 2007, the free cash flows are expected to grow at an annual rate of 5%. If the weighted average cost of capital is 12% for Normaltown, find the enterprise value of the firm.
a. $54.98 million
b. $301.81 million
c. $313.00 million
d. $331.43 million

ANS: D
Terminal value = $29*1.05/(.12-.05) = $435
PV of cash flows = $10/1.12 + $15/(1.12)^2 + $22/(1.12)^3 + $464/(1.12)^3 = $331.43

DIF: H REF: 5.5 Valuing the Enterprise - The Free Cash Flow Approach
NAR: Normaltown Corporation

75. After 2007, the free cash flows are expected to grow at an annual rate of 5%. The weighted average cost of capital for Normaltown is 12%. If the market value of the firm's debt is $100 million, find the value of the firm's equity.
a. $201.81 million
b. $213.00 million
c. $231.43 million
d. $271.20 million

ANS: C
Terminal value = $29*1.05/(.12-.05) = $435
PV of cash flows = $10/1.12 + $15/(1.12)^2 + $22/(1.12)^3 + $464/(1.12)^3 = $331.43

Equity value = $331.43 - $100

DIF: H REF: 5.5 Valuing the Enterprise - The Free Cash Flow Approach
NAR: Normaltown Corporation