

Chapter 03

Financial Statements Analysis and Long-Term Planning

Multiple Choice Questions

1. One key reason a long-term financial plan is developed is because:
 - A. the plan determines your financial policy.
 - B. the plan determines your investment policy.
 - C. there are direct connections between achievable corporate growth and the financial policy.
 - D. there is unlimited growth possible in a well-developed financial plan.
 - E. None of the above.

2. Projected future financial statements are called:
 - A. plug statements.
 - B. pro forma statements.
 - C. reconciled statements.
 - D. aggregated statements.
 - E. none of the above.

3. The percentage of sales method:
 - A. requires that all accounts grow at the same rate.
 - B. separates accounts that vary with sales and those that do not vary with sales.
 - C. allows the analyst to calculate how much financing the firm will need to support the predicted sales level.
 - D. Both A and B.
 - E. Both B and C.

4. A _____ standardizes items on the income statement and balance sheet as a percentage of total sales and total assets, respectively.
 - A. tax reconciliation statement
 - B. statement of standardization
 - C. statement of cash flows
 - D. common-base year statement
 - E. common-size statement

5. Relationships determined from a firm's financial information and used for comparison purposes are known as:

- A. financial ratios.
- B. comparison statements.
- C. dimensional analysis.
- D. scenario analysis.
- E. solvency analysis.

6. Financial ratios that measure a firm's ability to pay its bills over the short run without undue stress are known as _____ ratios.

- A. asset management
- B. long-term solvency
- C. short-term solvency
- D. profitability
- E. market value

7. The current ratio is measured as:

- A. current assets minus current liabilities.
- B. current assets divided by current liabilities.
- C. current liabilities minus inventory, divided by current assets.
- D. cash on hand divided by current liabilities.
- E. current liabilities divided by current assets.

8. The quick ratio is measured as:

- A. current assets divided by current liabilities.
- B. cash on hand plus current liabilities, divided by current assets.
- C. current liabilities divided by current assets, plus inventory.
- D. current assets minus inventory, divided by current liabilities.
- E. current assets minus inventory minus current liabilities.

9. The cash ratio is measured as:

- A. current assets divided by current liabilities.
- B. current assets minus cash on hand, divided by current liabilities.
- C. current liabilities plus current assets, divided by cash on hand.
- D. cash on hand plus inventory, divided by current liabilities.
- E. cash on hand divided by current liabilities.

10. Ratios that measure a firm's financial leverage are known as _____ ratios.

- A. asset management
- B. long-term solvency
- C. short-term solvency
- D. profitability
- E. market value

11. The financial ratio measured as total assets minus total equity, divided by total assets, is the:

- A. total debt ratio.
- B. equity multiplier.
- C. debt-equity ratio.
- D. current ratio.
- E. times interest earned ratio.

12. The debt-equity ratio is measured as total:

- A. equity minus total debt.
- B. equity divided by total debt.
- C. debt divided by total equity.
- D. debt plus total equity.
- E. debt minus total assets, divided by total equity.

13. The equity multiplier ratio is measured as total:

- A. equity divided by total assets.
- B. equity plus total debt.
- C. assets minus total equity, divided by total assets.
- D. assets plus total equity, divided by total debt.
- E. assets divided by total equity.

14. The financial ratio measured as earnings before interest and taxes, divided by interest expense is the:

- A. cash coverage ratio.
- B. debt-equity ratio.
- C. times interest earned ratio.
- D. gross margin.
- E. total debt ratio.

15. The financial ratio measured as earnings before interest and taxes, plus depreciation, divided by interest expense, is the:

- A. cash coverage ratio.
- B. debt-equity ratio.
- C. times interest earned ratio.
- D. gross margin.
- E. total debt ratio.

16. Ratios that measure how efficiently a firm uses its assets to generate sales are known as _____ ratios.

- A. asset management
- B. long-term solvency
- C. short-term solvency
- D. profitability
- E. market value

17. The inventory turnover ratio is measured as:

- A. total sales minus inventory.
- B. inventory times total sales.
- C. cost of goods sold divided by inventory.
- D. inventory times cost of goods sold.
- E. inventory plus cost of goods sold.

18. The financial ratio days' sales in inventory is measured as:

- A. inventory turnover plus 365 days.
- B. inventory times 365 days.
- C. inventory plus cost of goods sold, divided by 365 days.
- D. 365 days divided by the inventory.
- E. 365 days divided by the inventory turnover.

19. The receivables turnover ratio is measured as:

- A. sales plus accounts receivable.
- B. sales divided by accounts receivable.
- C. sales minus accounts receivable, divided by sales.
- D. accounts receivable times sales.
- E. accounts receivable divided by sales.

20. The financial ratio days' sales in receivables is measured as:

- A. receivables turnover plus 365 days.
- B. accounts receivable times 365 days.
- C. accounts receivable plus sales, divided by 365 days.
- D. 365 days divided by the receivables turnover.
- E. 365 days divided by the accounts receivable.

21. The total asset turnover ratio is measured as:

- A. sales minus total assets.
- B. sales divided by total assets.
- C. sales times total assets.
- D. total assets divided by sales.
- E. total assets plus sales.

22. Ratios that measure how efficiently a firm's management uses its assets and equity to generate bottom line net income are known as _____ ratios.

- A. asset management
- B. long-term solvency
- C. short-term solvency
- D. profitability
- E. market value

23. The financial ratio measured as net income divided by sales is known as the firm's:

- A. profit margin.
- B. return on assets.
- C. return on equity.
- D. asset turnover.
- E. earnings before interest and taxes.

24. The financial ratio measured as net income divided by total assets is known as the firm's:

- A. profit margin.
- B. return on assets.
- C. return on equity.
- D. asset turnover.
- E. earnings before interest and taxes.

25. The financial ratio measured as net income divided by total equity is known as the firm's:

- A. profit margin.
- B. return on assets.
- C. return on equity.
- D. asset turnover.
- E. earnings before interest and taxes.

26. The financial ratio measured as the price per share of stock divided by earnings per share is known as the:

- A. return on assets.
- B. return on equity.
- C. debt-equity ratio.
- D. price-earnings ratio.
- E. Du Pont identity.

27. The market-to-book ratio is measured as:

- A. total equity divided by total assets.
- B. net income times market price per share of stock.
- C. net income divided by market price per share of stock.
- D. market price per share of stock divided by earnings per share.
- E. market value of equity per share divided by book value of equity per share.

28. The _____ breaks down return on equity into three component parts.

- A. Du Pont identity
- B. return on assets
- C. statement of cash flows
- D. asset turnover ratio
- E. equity multiplier

29. The External Funds Needed (EFN) equation does not measure the:

- A. additional asset requirements given a change in sales.
- B. additional total liabilities raised given the change in sales.
- C. rate of return to shareholders given the change in sales.
- D. net income expected to be earned given the change in sales.
- E. None of the above.

30. To calculate sustainable growth rate without using return on equity, the analyst needs the:

- A. profit margin.
- B. payout ratio.
- C. debt-to-equity ratio.
- D. total asset turnover.
- E. All of the above.

31. Growth can be reconciled with the goal of maximizing firm value:

- A. because greater growth always adds to value.
- B. because growth must be an outcome of decisions that maximize NPV.
- C. because growth and wealth maximization are the same.
- D. because growth of any type cannot decrease value.
- E. None of the above.

32. Sustainable growth can be determined by the:

- A. profit margin, total asset turnover and the price to earnings ratio.
- B. profit margin, the payout ratio, the debt-to-equity ratio, and the asset requirement or asset turnover ratio.
- C. Total growth less capital gains growth.
- D. Either A or B.
- E. None of the above.

33. Which of the following will increase sustainable growth?

- A. Buy back existing stock
- B. Decrease debt
- C. Increase profit margin
- D. Increase asset requirement or asset turnover ratio
- E. Increase dividend payout ratio

34. The main objective of long-term financial planning models is to:
- A. determine the asset requirements given the investment activities of the firm.
 - B. plan for contingencies or uncertain events.
 - C. determine the external financing needs.
 - D. All of the above.
 - E. None of the above.
35. On a common-size balance sheet, all _____ accounts are shown as a percentage of _____.
- A. income; total assets
 - B. liability; net income
 - C. asset; sales
 - D. liability; total assets
 - E. equity; sales
36. Which one of the following statements is correct concerning ratio analysis?
- A. A single ratio is often computed differently by different individuals.
 - B. Ratios do not address the problem of size differences among firms.
 - C. Only a very limited number of ratios can be used for analytical purposes.
 - D. Each ratio has a specific formula that is used consistently by all analysts.
 - E. Ratios can not be used for comparison purposes over periods of time.
37. Which of the following are liquidity ratios?
- I. cash coverage ratio
 - II. current ratio
 - III. quick ratio
 - IV. inventory turnover
- A. II and III only
 - B. I and II only
 - C. II, III, and IV only
 - D. I, III, and IV only
 - E. I, II, III, and IV

38. An increase in which one of the following accounts increases a firm's current ratio without affecting its quick ratio?

- A. accounts payable
- B. cash
- C. inventory
- D. accounts receivable
- E. fixed assets

39. A supplier, who requires payment within ten days, is most concerned with which one of the following ratios when granting credit?

- A. current
- B. cash
- C. debt-equity
- D. quick
- E. total debt

40. A firm has a total debt ratio of .47. This means that that firm has 47 cents in debt for every:

- A. \$1 in equity.
- B. \$1 in total sales.
- C. \$1 in current assets.
- D. \$.53 in equity.
- E. \$.53 in total assets.

41. The long-term debt ratio is probably of most interest to a firm's:

- A. credit customers.
- B. employees.
- C. suppliers.
- D. mortgage holder.
- E. shareholders.

42. A banker considering loaning a firm money for ten years would most likely prefer the firm have a debt ratio of _____ and a times interest earned ratio of _____.

- A. .75; .75
- B. .50; 1.00
- C. .45; 1.75
- D. .40; 2.50
- E. .35; 3.00

43. From a cash flow position, which one of the following ratios best measures a firm's ability to pay the interest on its debts?

- A. times interest earned ratio
- B. cash coverage ratio
- C. cash ratio
- D. quick ratio
- E. Interval measure

44. The higher the inventory turnover measure, the:

- A. faster a firm sells its inventory.
- B. faster a firm collects payment on its sales.
- C. longer it takes a firm to sell its inventory.
- D. greater the amount of inventory held by a firm.
- E. lesser the amount of inventory held by a firm.

45. Which one of the following statements is correct if a firm has a receivables turnover measure of 10?

- A. It takes a firm 10 days to collect payment from its customers.
- B. It takes a firm 36.5 days to sell its inventory and collect the payment from the sale.
- C. It takes a firm 36.5 days to pay its creditors.
- D. The firm has an average collection period of 36.5 days.
- E. The firm has ten times more in accounts receivable than it does in cash.

46. A total asset turnover measure of 1.03 means that a firm has \$1.03 in:

- A. total assets for every \$1 in cash.
- B. total assets for every \$1 in total debt.
- C. total assets for every \$1 in equity.
- D. sales for every \$1 in total assets.
- E. long-term assets for every \$1 in short-term assets.

47. Puffy's Pastries generates five cents of net income for every \$1 in sales. Thus, Puffy's has a _____ of 5%.

- A. return on assets
- B. return on equity
- C. profit margin
- D. Du Pont measure
- E. total asset turnover

48. If a firm produces a 10% return on assets and also a 10% return on equity, then the firm:

- A. has no debt of any kind.
- B. is using its assets as efficiently as possible.
- C. has no net working capital.
- D. also has a current ratio of 10.
- E. has an equity multiplier of 2.

49. If shareholders want to know how much profit a firm is making on their entire investment in the firm, the shareholders should look at the:

- A. profit margin.
- B. return on assets.
- C. return on equity.
- D. equity multiplier.
- E. earnings per share.

50. BGL Enterprises increases its operating efficiency such that costs decrease while sales remain constant. As a result, given all else constant, the:

- A. return on equity will increase.
- B. return on assets will decrease.
- C. profit margin will decline.
- D. equity multiplier will decrease.
- E. price-earnings ratio will increase.

51. The only difference between Joe's and Moe's is that Joe's has old, fully depreciated equipment. Moe's just purchased all new equipment which will be depreciated over eight years. Assuming all else equal:

- A. Joe's will have a lower profit margin.
- B. Joe's will have a lower return on equity.
- C. Moe's will have a higher net income.
- D. Moe's will have a lower profit margin.
- E. Moe's will have a higher return on assets.

52. Last year, Alfred's Automotive had a price-earnings ratio of 15. This year, the price earnings ratio is 18. Based on this information, it can be stated with certainty that:

- A. the price per share increased.
- B. the earnings per share decreased.
- C. investors are paying a higher price for each share of stock purchased.
- D. investors are receiving a higher rate of return this year.
- E. either the price per share, the earnings per share, or both changed.

53. Turner's Inc. has a price-earnings ratio of 16. Alfred's Co. has a price-earnings ratio of 19. Thus, you can state with certainty that one share of stock in Alfred's:

- A. has a higher market price than one share of stock in Turner's.
- B. has a higher market price per dollar of earnings than does one share of Turner's.
- C. sells at a lower price per share than one share of Turner's.
- D. represents a larger percentage of firm ownership than does one share of Turner's stock.
- E. earns a greater profit per share than does one share of Turner's stock.

54. Which two of the following are most apt to cause a firm to have a higher price-earnings ratio?

- I. slow industry outlook
 - II. high prospect of firm growth
 - III. very low current earnings
 - IV. investors with a low opinion of the firm
- A. I and II only
 - B. II and III only
 - C. II and IV only
 - D. I and III only
 - E. III and IV only

55. Vinnie's Motors has a market-to-book ratio of 3. The book value per share is \$4.00. Holding market-to-book constant, a \$1 increase in the book value per share will:

- A. cause the accountants to increase the equity of the firm by an additional \$2.
- B. increase the market price per share by \$1.
- C. increase the market price per share by \$12.
- D. tend to cause the market price per share to rise.
- E. only affect book values but not market values.

56. Which one of the following sets of ratios applies most directly to shareholders?

- A. return on assets and profit margin
- B. quick ratio and times interest earned
- C. price-earnings ratio and debt-equity ratio
- D. market-to-book ratio and price-earnings ratio
- E. cash coverage ratio and times equity multiplier

57. The three parts of the Du Pont identity can be generally described as:

- I. operating efficiency, asset use efficiency and firm profitability.
 - II. financial leverage, operating efficiency and asset use efficiency.
 - III. the equity multiplier, the profit margin and the total asset turnover.
 - IV. the debt-equity ratio, the capital intensity ratio and the profit margin.
- A. I and II only
 - B. II and III only
 - C. I and IV only
 - D. I and III only
 - E. III and IV only

58. If a firm decreases its operating costs, all else constant, then:

- A. the profit margin increases while the equity multiplier decreases.
- B. the return on assets increases while the return on equity decreases.
- C. the total asset turnover rate decreases while the profit margin increases.
- D. both the profit margin and the equity multiplier increase.
- E. both the return on assets and the return on equity increase.

59. Which one of the following statements is correct?

- A. Book values should always be given precedence over market values.
- B. Financial statements are frequently the basis used for performance evaluations.
- C. Historical information has no value when predicting the future.
- D. Potential lenders place little value on financial statement information.
- E. Reviewing financial information over time has very limited value.

60. It is easier to evaluate a firm using its financial statements when the firm:

- A. is a conglomerate.
- B. is global in nature.
- C. uses the same accounting procedures as other firms in its industry.
- D. has a different fiscal year than other firms in its industry.
- E. tends to have one-time events such as asset sales and property acquisitions.

61. Which two of the following represent the most effective methods of directly evaluating the financial performance of a firm?

- I. comparing the current financial ratios to those of the same firm from prior time periods
 - II. comparing a firm's financial ratios to those of other firms in the firm's peer group who have similar operations
 - III. comparing the financial statements of the firm to the financial statements of similar firms operating in other countries
 - IV. comparing the financial ratios of the firm to the average ratios of all firms located in the same geographic area
- A. I and II only
 - B. II and III only
 - C. III and IV only
 - D. I and IV only
 - E. I and III only

62. In the financial planning model, external funds needed (EFN) is equal to changes in

- A. assets - (liabilities - equity).
- B. assets - (liabilities + equity).
- C. (assets + liabilities - equity).
- D. (assets + equity - liabilities).
- E. assets - equity.

63. Which of the following represent problems encountered when comparing the financial statements of one firm with those of another firm?

- I. Either one, or both, of the firms may be conglomerates and thus have unrelated lines of business.
 - II. The operations of the two firms may vary geographically.
 - III. The firms may use differing accounting methods for inventory purposes.
 - IV. The two firms may be seasonal in nature and have different fiscal year ends.
- A. I and II only
 - B. II and III only
 - C. I, III, and IV only
 - D. I, II, and III only
 - E. I, II, III, and IV

64. A firm's sustainable growth rate in sales directly depends on its:

- A. debt to equity ratio.
- B. profit margin.
- C. dividend policy.
- D. asset efficiency.
- E. All of the above.

65. The sustainable growth rate will be equivalent to the internal growth rate when:

- A. a firm has no debt.
- B. the growth rate is positive.
- C. the plowback ratio is positive but less than 1.
- D. a firm has a debt-equity ratio exactly equal to 1.
- E. net income is greater than zero.

66. The sustainable growth rate:

- A. assumes there is no external financing of any kind.
- B. is normally higher than the internal growth rate.
- C. assumes the debt-equity ratio is variable.
- D. is based on receiving additional external debt and equity financing.
- E. assumes that 100% of all income is retained by the firm.

67. If a firm bases its growth projection on the rate of sustainable growth, and shows positive net income, then the:

- A. fixed assets will have to increase at the same rate, regardless of the current capacity level.
- B. number of common shares outstanding will increase at the same rate of growth.
- C. debt-equity ratio will have to increase.
- D. debt-equity ratio will remain constant while retained earnings increase.
- E. fixed assets, debt-equity ratio, and number of common shares outstanding will all increase.

68. Marcie's Mercantile wants to maintain its current dividend policy, which is a payout ratio of 40%. The firm does not want to increase its equity financing but is willing to maintain its current debt-equity ratio. Given these requirements, the maximum rate at which Marcie's can grow is equal to:

- A. 40% of the internal rate of growth.
- B. 60% of the internal rate of growth.
- C. the internal rate of growth.
- D. the sustainable rate of growth.
- E. 60% of the sustainable rate of growth.

69. One of the primary weaknesses of many financial planning models is that they:

- A. rely too much on financial relationships and too little on accounting relationships.
- B. are iterative in nature.
- C. ignore the goals and objectives of senior management.
- D. are based solely on best case assumptions.
- E. ignore the size, risk, and timing of cash flows.

70. Financial planning, when properly executed:

- A. ignores the normal restraints encountered by a firm.
- B. ensures that the primary goals of senior management are fully achieved.
- C. reduces the necessity of daily management oversight of the business operations.
- D. helps ensure that proper financing is in place to support the desired level of growth.
- E. eliminates the need to plan more than one year in advance.

71. When examining the EBITDA ratio, lower numbers are:

- A. considered good.
- B. considered mediocre.
- C. considered poor.
- D. indifferent to higher numbers.
- E. it is impossible to garner information from this ratio.

72. A firm's market capitalization is equal to:

- A. total book value of assets less book value of debt.
- B. par value of common equity.
- C. firm's stock price multiplied by number of shares outstanding.
- D. firm's stock price multiplied by the number of shares authorized.
- E. the maximum value an acquirer would pay for a firm in an acquisition.

73. Enterprise value focused on:

- A. market values of debt and equity.
- B. book values of debt and assets.
- C. market value of equity and book value of debt.
- D. book value of debt and market value of equity.
- E. book values of debt and equity.

74. A firm has sales of \$1,200, net income of \$200, net fixed assets of \$500, and current assets of \$300. The firm has \$100 in inventory. What is the common-size statement value of inventory?

- A. 8.3%
- B. 12.5%
- C. 20.0%
- D. 33.3%
- E. 50.0%

75. A firm has sales of \$1,500, net income of \$100, total assets of \$1,000, and total equity of \$700. Interest expense is \$50. What is the common-size statement value of the interest expense?

- A. 3.3%
- B. 5.0%
- C. 7.1%
- D. 16.7%
- E. 50.0%

76. Jessica's Boutique has cash of \$50, accounts receivable of \$60, accounts payable of \$200, and inventory of \$150. What is the value of the quick ratio?

- A. .30
- B. .55
- C. .77
- D. 1.30
- E. 1.82

77. A firm has a debt-equity ratio of .40. What is the total debt ratio?

- A. .29
- B. .33
- C. .67
- D. 1.40
- E. 1.50

78. A firm has total debt of \$1,200 and a debt-equity ratio of .30. What is the value of the total assets?

- A. \$1,560
- B. \$3,000
- C. \$3,600
- D. \$4,000
- E. \$5,200

79. A firm has sales of \$3,600, costs of \$2,800, interest paid of \$100, and depreciation of \$400. The tax rate is 34%. What is the value of the cash coverage ratio?

- A. 2
- B. 4
- C. 6
- D. 8
- E. 10

80. Rosita's Resources paid \$250 in interest and \$130 in dividends last year. The times interest earned ratio is 3.8 and the depreciation expense is \$60. What is the value of the cash coverage ratio?

- A. 2.40
- B. 3.52
- C. 3.80
- D. 4.04
- E. 4.28

81. Mario's Home Systems has sales of \$2,800, cost of goods sold of \$2,100, inventory of \$500, and accounts receivable of \$400. How many days, on average, does it take Mario's to sell its inventory?

- A. 65.2 days
- B. 85.2 days
- C. 86.9 days
- D. 96.9 days
- E. 117.3 days

82. Syed's Industries has accounts receivable of \$700, inventory of \$1,200, sales of \$4,200, and cost of goods sold of \$3,400. How long does it take Syed's to both sell its inventory and then collect the payment on the sale?

- A. 128 days
- B. 146 days
- C. 163 days
- D. 190 days
- E. 211 days

83. A firm has net working capital of \$400, net fixed assets of \$2,400, sales of \$6,000, and current liabilities of \$800. How many dollars worth of sales are generated from every \$1 in total assets?

- A. \$1.33
- B. \$1.67
- C. \$1.88
- D. \$2.33
- E. \$2.50

84. Rosita's Restaurant has sales of \$4,500, total debt of \$1,300, total equity of \$2,400, and a profit margin of 5%. What is the return on assets?

- A. 5.00%
- B. 6.08%
- C. 7.39%
- D. 9.38%
- E. 17.31%

85. Lee Sun's has sales of \$3,000, total assets of \$2,500, and a profit margin of 5%. The firm has a total debt ratio of 40%. What is the return on equity?

- A. 6%
- B. 8%
- C. 10%
- D. 12%
- E. 15%

86. Jupiter Explorers has \$6,400 in sales. The profit margin is 4%. There are 6,400 shares of stock outstanding. The market price per share is \$1.20. What is the price-earnings ratio?

- A. 13
- B. 14
- C. 21
- D. 30
- E. 48

87. Patti's has net income of \$1,800, a price-earnings ratio of 12, and earnings per share of \$1.20. How many shares of stock are outstanding?

- A. 1,200
- B. 1,400
- C. 1,500
- D. 1,600
- E. 1,800

88. A firm has 5,000 shares of stock outstanding, sales of \$6,000, net income of \$800, a price-ratio of 10, and a book value per share of \$.50. What is the market-to-book ratio?

- A. 1.6
- B. 2.4
- C. 3.0
- D. 3.2
- E. 3.6

89. A firm has 5,000 shares of stock outstanding, sales of \$6,000, an enterprise value of \$5 million and an EBITDA of 1 million. What is the enterprise value multiple?

- A. 2.2
- B. 2.4
- C. 3.0
- D. 4.0
- E. 5.0

90. A firm has a market capitalization of \$2 million, market value of interest bearing debt of \$1 million, book value of interest bearing debt of \$500,000 and cash of \$100,000. What is the enterprise value?

- A. \$2.5 million
- B. \$2.9 million
- C. \$3.0 million
- D. \$3.5 million
- E. \$3.6 million

91. Frederico's has a profit margin of 6%, a return on assets of 8%, and an equity multiplier of 1.4. What is the return on equity?

- A. 6.7%
- B. 8.4%
- C. 11.2%
- D. 14.6%
- E. 19.6%

92. Samuelson's has a debt-equity ratio of 40%, sales of \$8,000, net income of \$600, and total debt of \$2,400. What is the return on equity?

- A. 6.25%
- B. 7.50%
- C. 9.75%
- D. 10.00%
- E. 11.25%

93. A firm has a return on equity of 15%. The debt-equity ratio is 50%. The total asset turnover is 1.25 and the profit margin is 8%. The total equity is \$3,200. What is the amount of the net income?

- A. \$480
- B. \$500
- C. \$540
- D. \$600
- E. \$620

Windswept, Inc.
2008 Income Statement
(\$ in millions)

Net sales	\$8,450
Less: Cost of goods sold	7,240
Less: Depreciation	<u>400</u>
Earnings before interest and taxes	810
Less: Interest paid	<u>70</u>
Taxable Income	\$ 740
Less: Taxes	<u>259</u>
Net income	<u>\$ 481</u>

Windswept, Inc.
2007 and 2008 Balance Sheets
(\$ in millions)

	<u>2007</u>	<u>2008</u>		<u>2007</u>	<u>2008</u>
Cash	\$ 120	\$ 140	Accounts payable	\$1,110	\$1,120
Accounts rec.	930	780	Long-term debt	840	1,210
Inventory	<u>1,480</u>	<u>1,520</u>	Common stock	3,200	3,000
Total	\$2,530	\$2,440	Retained earnings	<u>530</u>	<u>710</u>
Net fixed assets	<u>3,150</u>	<u>3,600</u>	Total liabilities & equity	<u>\$5,680</u>	<u>\$6,040</u>
Total assets	<u>\$5,680</u>	<u>\$6,040</u>			

94. What is the quick ratio for 2008?

- A. .82
- B. .95
- C. 1.36
- D. 2.18
- E. 2.28

95. What is the days' sales in receivables in 2008?

- A. 31.8 days
- B. 33.7 days
- C. 38.4 days
- D. 41.9 days
- E. 47.4 days

96. What is the equity multiplier for 2008?

- A. 1.6
- B. 1.8
- C. 2.0
- D. 2.3
- E. 2.5

97. What is the cash coverage ratio for 2008?

- A. 11.6
- B. 12.8
- C. 13.7
- D. 17.3
- E. 18.8

98. What is the return on equity for 2008?

- A. 5.7%
- B. 6.8%
- C. 13.0%
- D. 15.3%
- E. 16.0%

99. Windswept, Inc. has 90 million shares of stock outstanding. Its price-earnings ratio for 2008 is 12. What is the market price per share of stock?

- A. \$57.12
- B. \$59.94
- C. \$62.82
- D. \$64.13
- E. \$65.03

Bayside Inc.
2008 Income Statement
 (\$ in thousands)

Net sales	\$5,680
Less: Cost of goods sold	4,060
Less: Depreciation	<u>420</u>
Earnings before interest and taxes	1,200
Less: Interest paid	<u>30</u>
Taxable Income	\$1,170
Less: Taxes	<u>410</u>
Net income	<u>\$ 760</u>

Bayside, Inc.
2007 and 2008 Balance Sheets
 (\$ in thousands)

	<u>2007</u>	<u>2008</u>		<u>2007</u>	<u>2008</u>
Cash	\$ 70	\$ 180	Accounts payable	\$1,350	\$1,170
Accounts rec.	980	840	Long-term debt	720	500
Inventory	<u>1,560</u>	<u>1,990</u>	Common stock	3,200	3,500
Total	\$2,610	\$3,010	Retained earnings	<u>940</u>	<u>1,200</u>
Net fixed assets	<u>3,600</u>	<u>3,360</u>			
Total assets	<u>\$6,210</u>	<u>\$6,370</u>	Total liabilities & equity	<u>\$6,210</u>	<u>\$6,370</u>

100. In 2008, how many days on average did it take Bayside to sell its inventory?

- A. 126.1 days
- B. 127.9 days
- C. 153.8 days
- D. 176.5 days
- E. 178.9 days

101. What is the debt-equity ratio for 2008?

- A. 22.5%
- B. 26.2%
- C. 35.5%
- D. 45.1%
- E. 47.7%

102. What is the times interest earned ratio for 2008?

- A. 30
- B. 36
- C. 40
- D. 50
- E. 54

103. What is the equity multiplier for 2008?

- A. 1.21
- B. 1.36
- C. 1.44
- D. 1.82
- E. 1.91

104. What is the return on equity for 2008?

- A. 16.2%
- B. 20.9%
- C. 21.7%
- D. 22.1%
- E. 23.3%

105. The Green Giant has a 5% profit margin and a 40% dividend payout ratio. The total asset turnover is 1.40 and the equity multiplier is 1.50. What is the sustainable rate of growth?

- A. 6.30%
- B. 6.53%
- C. 6.72%
- D. 6.80%
- E. 6.83%

106. Neal's Nails has an 11% return on assets and a 30% dividend payout ratio. What is the internal growth rate?

- A. 7.11%
- B. 7.70%
- C. 8.34%
- D. 8.46%
- E. 11.99%

107. Katelyn's Kites has net income of \$240 and total equity of \$2,000. The debt-equity ratio is 1.0 and the plowback ratio is 40%. What is the internal growth rate?

- A. 2.46%
- B. 3.00%
- C. 4.92%
- D. 5.88%
- E. 6.00%

Essay Questions

108. Why is it important for managers to understand the importance of both the internal and the sustainable rates of growth?

109. State the assumptions that underlie the sustainable growth rate and interpret what the sustainable growth rate means.

110. Suppose a firm calculates its external funding needs and finds that it is negative. What are the firm's options in this case?

111. Robert Morris Associates publishes peer group financial information for a host of industries, yet the numbers typically only appear in common-size form. Why not report average dollar amounts instead?

112. A firm has days' sales in inventory of 105 days, an average collection period of 35 days, and takes 42 days, on average, to pay its accounts payable. Taken together, what do these three figures imply about the firm's operations and its cash flows?

113. Suppose you calculated the following ratio for a firm: The sum of the compensation paid to the owners, directors, and managers, divided by total sales. Which class of financial ratios should this be included in and why? Who might be interested in such a ratio?

114. Which is a more meaningful measure of profitability for a firm, return on assets or return on equity? Why?

115. It is often said that anyone with a pencil can calculate financial ratios, but it takes a brain to interpret them. What kinds of things should an analyst keep in mind when evaluating the financial statements of a given firm?

116. List and interpret two liquidity ratios.

Chapter 03 Financial Statements Analysis and Long-Term Planning **Answer Key**

Multiple Choice Questions

1. One key reason a long-term financial plan is developed is because:
- A. the plan determines your financial policy.
 - B. the plan determines your investment policy.
 - C.** there are direct connections between achievable corporate growth and the financial policy.
 - D. there is unlimited growth possible in a well-developed financial plan.
 - E. None of the above.

Difficulty level: Easy
Topic: LONG-TERM PLANNING
Type: DEFINITIONS

2. Projected future financial statements are called:
- A. plug statements.
 - B.** pro forma statements.
 - C. reconciled statements.
 - D. aggregated statements.
 - E. none of the above.

Difficulty level: Easy
Topic: PRO FORMA STATEMENTS
Type: DEFINITIONS

3. The percentage of sales method:

- A. requires that all accounts grow at the same rate.
- B. separates accounts that vary with sales and those that do not vary with sales.
- C. allows the analyst to calculate how much financing the firm will need to support the predicted sales level.
- D. Both A and B.
- E.** Both B and C.

Difficulty level: Medium

Topic: PERCENTAGE OF SALES

Type: DEFINITIONS

4. A _____ standardizes items on the income statement and balance sheet as a percentage of total sales and total assets, respectively.

- A. tax reconciliation statement
- B. statement of standardization
- C. statement of cash flows
- D. common-base year statement
- E.** common-size statement

Difficulty level: Easy

Topic: COMMON-SIZE STATEMENTS

Type: DEFINITIONS

5. Relationships determined from a firm's financial information and used for comparison purposes are known as:

- A.** financial ratios.
- B. comparison statements.
- C. dimensional analysis.
- D. scenario analysis.
- E. solvency analysis.

Difficulty level: Easy

Topic: FINANCIAL RATIOS

Type: DEFINITIONS

6. Financial ratios that measure a firm's ability to pay its bills over the short run without undue stress are known as _____ ratios.

- A. asset management
- B. long-term solvency
- C. short-term solvency**
- D. profitability
- E. market value

Difficulty level: Easy

Topic: SHORT-TERM SOLVENCY RATIOS

Type: DEFINITIONS

7. The current ratio is measured as:

- A. current assets minus current liabilities.
- B. current assets divided by current liabilities.**
- C. current liabilities minus inventory, divided by current assets.
- D. cash on hand divided by current liabilities.
- E. current liabilities divided by current assets.

Difficulty level: Easy

Topic: CURRENT RATIO

Type: DEFINITIONS

8. The quick ratio is measured as:

- A. current assets divided by current liabilities.
- B. cash on hand plus current liabilities, divided by current assets.
- C. current liabilities divided by current assets, plus inventory.
- D. current assets minus inventory, divided by current liabilities.**
- E. current assets minus inventory minus current liabilities.

Difficulty level: Easy

Topic: QUICK RATIO

Type: DEFINITIONS

9. The cash ratio is measured as:

- A. current assets divided by current liabilities.
- B. current assets minus cash on hand, divided by current liabilities.
- C. current liabilities plus current assets, divided by cash on hand.
- D. cash on hand plus inventory, divided by current liabilities.
- E.** cash on hand divided by current liabilities.

Difficulty level: Medium

Topic: CASH RATIO

Type: DEFINITIONS

10. Ratios that measure a firm's financial leverage are known as _____ ratios.

- A. asset management
- B.** long-term solvency
- C. short-term solvency
- D. profitability
- E. market value

Difficulty level: Easy

Topic: LONG-TERM SOLVENCY RATIOS

Type: DEFINITIONS

11. The financial ratio measured as total assets minus total equity, divided by total assets, is the:

- A.** total debt ratio.
- B. equity multiplier.
- C. debt-equity ratio.
- D. current ratio.
- E. times interest earned ratio.

Difficulty level: Easy

Topic: TOTAL DEBT RATIO

Type: DEFINITIONS

12. The debt-equity ratio is measured as total:

- A. equity minus total debt.
- B. equity divided by total debt.
- C.** debt divided by total equity.
- D. debt plus total equity.
- E. debt minus total assets, divided by total equity.

Difficulty level: Easy

Topic: DEBT-EQUITY RATIO

Type: DEFINITIONS

13. The equity multiplier ratio is measured as total:

- A. equity divided by total assets.
- B. equity plus total debt.
- C. assets minus total equity, divided by total assets.
- D. assets plus total equity, divided by total debt.
- E.** assets divided by total equity.

Difficulty level: Medium

Topic: EQUITY MULTIPLIER

Type: DEFINITIONS

14. The financial ratio measured as earnings before interest and taxes, divided by interest expense is the:

- A. cash coverage ratio.
- B. debt-equity ratio.
- C.** times interest earned ratio.
- D. gross margin.
- E. total debt ratio.

Difficulty level: Medium

Topic: TIMES INTEREST EARNED RATIO

Type: DEFINITIONS

15. The financial ratio measured as earnings before interest and taxes, plus depreciation, divided by interest expense, is the:

- A. cash coverage ratio.
- B. debt-equity ratio.
- C. times interest earned ratio.
- D. gross margin.
- E. total debt ratio.

Difficulty level: Medium

Topic: CASH COVERAGE RATIO

Type: DEFINITIONS

16. Ratios that measure how efficiently a firm uses its assets to generate sales are known as _____ ratios.

- A. asset management
- B. long-term solvency
- C. short-term solvency
- D. profitability
- E. market value

Difficulty level: Easy

Topic: ASSET MANAGEMENT RATIOS

Type: DEFINITIONS

17. The inventory turnover ratio is measured as:

- A. total sales minus inventory.
- B. inventory times total sales.
- C. cost of goods sold divided by inventory.
- D. inventory times cost of goods sold.
- E. inventory plus cost of goods sold.

Difficulty level: Medium

Topic: INVENTORY TURNOVER

Type: DEFINITIONS

18. The financial ratio days' sales in inventory is measured as:

- A. inventory turnover plus 365 days.
- B. inventory times 365 days.
- C. inventory plus cost of goods sold, divided by 365 days.
- D. 365 days divided by the inventory.
- E.** 365 days divided by the inventory turnover.

Difficulty level: Medium

Topic: DAYS' SALES IN INVENTORY

Type: DEFINITIONS

19. The receivables turnover ratio is measured as:

- A. sales plus accounts receivable.
- B.** sales divided by accounts receivable.
- C. sales minus accounts receivable, divided by sales.
- D. accounts receivable times sales.
- E. accounts receivable divided by sales.

Difficulty level: Medium

Topic: RECEIVABLES TURNOVER

Type: DEFINITIONS

20. The financial ratio days' sales in receivables is measured as:

- A. receivables turnover plus 365 days.
- B. accounts receivable times 365 days.
- C. accounts receivable plus sales, divided by 365 days.
- D.** 365 days divided by the receivables turnover.
- E. 365 days divided by the accounts receivable.

Difficulty level: Medium

Topic: DAYS' SALES IN RECEIVABLES

Type: DEFINITIONS

21. The total asset turnover ratio is measured as:

- A. sales minus total assets.
- B.** sales divided by total assets.
- C. sales times total assets.
- D. total assets divided by sales.
- E. total assets plus sales.

Difficulty level: Easy

Topic: TOTAL ASSET TURNOVER

Type: DEFINITIONS

22. Ratios that measure how efficiently a firm's management uses its assets and equity to generate bottom line net income are known as _____ ratios.

- A. asset management
- B. long-term solvency
- C. short-term solvency
- D.** profitability
- E. market value

Difficulty level: Easy

Topic: PROFITABILITY RATIOS

Type: DEFINITIONS

23. The financial ratio measured as net income divided by sales is known as the firm's:

- A.** profit margin.
- B. return on assets.
- C. return on equity.
- D. asset turnover.
- E. earnings before interest and taxes.

Difficulty level: Easy

Topic: PROFIT MARGIN

Type: DEFINITIONS

24. The financial ratio measured as net income divided by total assets is known as the firm's:
- A. profit margin.
 - B.** return on assets.
 - C. return on equity.
 - D. asset turnover.
 - E. earnings before interest and taxes.

Difficulty level: Easy
Topic: RETURN ON ASSETS
Type: DEFINITIONS

25. The financial ratio measured as net income divided by total equity is known as the firm's:
- A. profit margin.
 - B. return on assets.
 - C.** return on equity.
 - D. asset turnover.
 - E. earnings before interest and taxes.

Difficulty level: Easy
Topic: RETURN ON EQUITY
Type: DEFINITIONS

26. The financial ratio measured as the price per share of stock divided by earnings per share is known as the:
- A. return on assets.
 - B. return on equity.
 - C. debt-equity ratio.
 - D.** price-earnings ratio.
 - E. Du Pont identity.

Difficulty level: Easy
Topic: PRICE-EARNINGS RATIO
Type: DEFINITIONS

27. The market-to-book ratio is measured as:
- A. total equity divided by total assets.
 - B. net income times market price per share of stock.
 - C. net income divided by market price per share of stock.
 - D. market price per share of stock divided by earnings per share.
 - E.** market value of equity per share divided by book value of equity per share.

Difficulty level: Medium
Topic: MARKET-TO-BOOK RATIO
Type: DEFINITIONS

28. The _____ breaks down return on equity into three component parts.
- A.** Du Pont identity
 - B. return on assets
 - C. statement of cash flows
 - D. asset turnover ratio
 - E. equity multiplier

Difficulty level: Medium
Topic: DU PONT IDENTITY
Type: DEFINITIONS

29. The External Funds Needed (EFN) equation does not measure the:
- A. additional asset requirements given a change in sales.
 - B. additional total liabilities raised given the change in sales.
 - C.** rate of return to shareholders given the change in sales.
 - D. net income expected to be earned given the change in sales.
 - E. None of the above.

Difficulty level: Medium
Topic: EXTERNAL FUNDS NEEDED
Type: DEFINITIONS

30. To calculate sustainable growth rate without using return on equity, the analyst needs the:
- A. profit margin.
 - B. payout ratio.
 - C. debt-to-equity ratio.
 - D. total asset turnover.
 - E.** All of the above.

Difficulty level: Medium
Topic: SUSTAINABLE GROWTH RATE
Type: DEFINITIONS

31. Growth can be reconciled with the goal of maximizing firm value:
- A. because greater growth always adds to value.
 - B.** because growth must be an outcome of decisions that maximize NPV.
 - C. because growth and wealth maximization are the same.
 - D. because growth of any type cannot decrease value.
 - E. None of the above.

Difficulty level: Medium
Topic: GROWTH
Type: DEFINITIONS

32. Sustainable growth can be determined by the:
- A. profit margin, total asset turnover and the price to earnings ratio.
 - B.** profit margin, the payout ratio, the debt-to-equity ratio, and the asset requirement or asset turnover ratio.
 - C. Total growth less capital gains growth.
 - D. Either A or B.
 - E. None of the above.

Difficulty level: Medium
Topic: SUSTAINABLE GROWTH
Type: DEFINITIONS

33. Which of the following will increase sustainable growth?

- A. Buy back existing stock
- B. Decrease debt
- C. Increase profit margin**
- D. Increase asset requirement or asset turnover ratio
- E. Increase dividend payout ratio

Difficulty level: Medium

Topic: SUSTAINABLE GROWTH

Type: DEFINITIONS

34. The main objective of long-term financial planning models is to:

- A. determine the asset requirements given the investment activities of the firm.
- B. plan for contingencies or uncertain events.
- C. determine the external financing needs.
- D. All of the above.**
- E. None of the above.

Difficulty level: Medium

Topic: LONG TERM PLANNING

Type: DEFINITIONS

35. On a common-size balance sheet, all _____ accounts are shown as a percentage of _____.

- A. income; total assets
- B. liability; net income
- C. asset; sales
- D. liability; total assets**
- E. equity; sales

Difficulty level: Medium

Topic: COMMON-SIZE BALANCE SHEET

Type: DEFINITIONS

36. Which one of the following statements is correct concerning ratio analysis?

- A. A single ratio is often computed differently by different individuals.
- B. Ratios do not address the problem of size differences among firms.
- C. Only a very limited number of ratios can be used for analytical purposes.
- D. Each ratio has a specific formula that is used consistently by all analysts.
- E. Ratios can not be used for comparison purposes over periods of time.

Difficulty level: Medium
Topic: RATIO ANALYSIS
Type: DEFINITIONS

37. Which of the following are liquidity ratios?

- I. cash coverage ratio
 - II. current ratio
 - III. quick ratio
 - IV. inventory turnover
- A. II and III only
 - B. I and II only
 - C. II, III, and IV only
 - D. I, III, and IV only
 - E. I, II, III, and IV

Difficulty level: Medium
Topic: LIQUIDITY RATIOS
Type: DEFINITIONS

38. An increase in which one of the following accounts increases a firm's current ratio without affecting its quick ratio?

- A. accounts payable
- B. cash
- C. inventory
- D. accounts receivable
- E. fixed assets

Difficulty level: Medium
Topic: LIQUIDITY RATIOS
Type: DEFINITIONS

39. A supplier, who requires payment within ten days, is most concerned with which one of the following ratios when granting credit?

- A. current
- B. cash**
- C. debt-equity
- D. quick
- E. total debt

Difficulty level: Medium
Topic: LIQUIDITY RATIOS
Type: DEFINITIONS

40. A firm has a total debt ratio of .47. This means that that firm has 47 cents in debt for every:

- A. \$1 in equity.
- B. \$1 in total sales.
- C. \$1 in current assets.
- D. \$.53 in equity.**
- E. \$.53 in total assets.

Difficulty level: Medium
Topic: LONG-TERM SOLVENCY RATIOS
Type: DEFINITIONS

41. The long-term debt ratio is probably of most interest to a firm's:

- A. credit customers.
- B. employees.
- C. suppliers.
- D. mortgage holder.**
- E. shareholders.

Difficulty level: Medium
Topic: LONG-TERM SOLVENCY RATIOS
Type: DEFINITIONS

42. A banker considering loaning a firm money for ten years would most likely prefer the firm have a debt ratio of _____ and a times interest earned ratio of _____.

- A. .75; .75
- B. .50; 1.00
- C. .45; 1.75
- D. .40; 2.50
- E.** .35; 3.00

Difficulty level: Medium

Topic: LONG-TERM SOLVENCY RATIOS

Type: DEFINITIONS

43. From a cash flow position, which one of the following ratios best measures a firm's ability to pay the interest on its debts?

- A. times interest earned ratio
- B.** cash coverage ratio
- C. cash ratio
- D. quick ratio
- E. Interval measure

Difficulty level: Medium

Topic: LONG-TERM SOLVENCY RATIOS

Type: DEFINITIONS

44. The higher the inventory turnover measure, the:

- A.** faster a firm sells its inventory.
- B. faster a firm collects payment on its sales.
- C. longer it takes a firm to sell its inventory.
- D. greater the amount of inventory held by a firm.
- E. lesser the amount of inventory held by a firm.

Difficulty level: Medium

Topic: ASSET MANAGEMENT RATIOS

Type: DEFINITIONS

45. Which one of the following statements is correct if a firm has a receivables turnover measure of 10?

- A. It takes a firm 10 days to collect payment from its customers.
- B. It takes a firm 36.5 days to sell its inventory and collect the payment from the sale.
- C. It takes a firm 36.5 days to pay its creditors.
- D.** The firm has an average collection period of 36.5 days.
- E. The firm has ten times more in accounts receivable than it does in cash.

Difficulty level: Medium

Topic: ASSET MANAGEMENT RATIOS

Type: DEFINITIONS

46. A total asset turnover measure of 1.03 means that a firm has \$1.03 in:

- A. total assets for every \$1 in cash.
- B. total assets for every \$1 in total debt.
- C. total assets for every \$1 in equity.
- D.** sales for every \$1 in total assets.
- E. long-term assets for every \$1 in short-term assets.

Difficulty level: Medium

Topic: ASSET MANAGEMENT RATIOS

Type: DEFINITIONS

47. Puffy's Pastries generates five cents of net income for every \$1 in sales. Thus, Puffy's has a _____ of 5%.

- A. return on assets
- B. return on equity
- C.** profit margin
- D. Du Pont measure
- E. total asset turnover

Difficulty level: Medium

Topic: PROFITABILITY RATIOS

Type: DEFINITIONS

48. If a firm produces a 10% return on assets and also a 10% return on equity, then the firm:
- A. has no debt of any kind.
 - B. is using its assets as efficiently as possible.
 - C. has no net working capital.
 - D. also has a current ratio of 10.
 - E. has an equity multiplier of 2.

Difficulty level: Medium
Topic: PROFITABILITY RATIOS
Type: DEFINITIONS

49. If shareholders want to know how much profit a firm is making on their entire investment in the firm, the shareholders should look at the:
- A. profit margin.
 - B. return on assets.
 - C. return on equity.
 - D. equity multiplier.
 - E. earnings per share.

Difficulty level: Medium
Topic: PROFITABILITY RATIOS
Type: DEFINITIONS

50. BGL Enterprises increases its operating efficiency such that costs decrease while sales remain constant. As a result, given all else constant, the:
- A. return on equity will increase.
 - B. return on assets will decrease.
 - C. profit margin will decline.
 - D. equity multiplier will decrease.
 - E. price-earnings ratio will increase.

Difficulty level: Medium
Topic: PROFITABILITY RATIOS
Type: DEFINITIONS

51. The only difference between Joe's and Moe's is that Joe's has old, fully depreciated equipment. Moe's just purchased all new equipment which will be depreciated over eight years. Assuming all else equal:

- A. Joe's will have a lower profit margin.
- B. Joe's will have a lower return on equity.
- C. Moe's will have a higher net income.
- D.** Moe's will have a lower profit margin.
- E. Moe's will have a higher return on assets.

Difficulty level: Medium

Topic: PROFITABILITY RATIOS

Type: DEFINITIONS

52. Last year, Alfred's Automotive had a price-earnings ratio of 15. This year, the price earnings ratio is 18. Based on this information, it can be stated with certainty that:

- A. the price per share increased.
- B. the earnings per share decreased.
- C. investors are paying a higher price for each share of stock purchased.
- D. investors are receiving a higher rate of return this year.
- E.** either the price per share, the earnings per share, or both changed.

Difficulty level: Medium

Topic: MARKET VALUE RATIOS

Type: DEFINITIONS

53. Turner's Inc. has a price-earnings ratio of 16. Alfred's Co. has a price-earnings ratio of 19. Thus, you can state with certainty that one share of stock in Alfred's:

- A. has a higher market price than one share of stock in Turner's.
- B.** has a higher market price per dollar of earnings than does one share of Turner's.
- C. sells at a lower price per share than one share of Turner's.
- D. represents a larger percentage of firm ownership than does one share of Turner's stock.
- E. earns a greater profit per share than does one share of Turner's stock.

Difficulty level: Medium

Topic: MARKET VALUE RATIO

Type: DEFINITIONS

54. Which two of the following are most apt to cause a firm to have a higher price-earnings ratio?

- I. slow industry outlook
 - II. high prospect of firm growth
 - III. very low current earnings
 - IV. investors with a low opinion of the firm
- A. I and II only
 - B. II and III only**
 - C. II and IV only
 - D. I and III only
 - E. III and IV only

Difficulty level: Medium

Topic: MARKET VALUE RATIOS

Type: DEFINITIONS

55. Vinnie's Motors has a market-to-book ratio of 3. The book value per share is \$4.00. Holding market-to-book constant, a \$1 increase in the book value per share will:

- A. cause the accountants to increase the equity of the firm by an additional \$2.
- B. increase the market price per share by \$1.
- C. increase the market price per share by \$12.
- D. tend to cause the market price per share to rise.**
- E. only affect book values but not market values.

Difficulty level: Medium

Topic: MARKET VALUE RATIOS

Type: DEFINITIONS

56. Which one of the following sets of ratios applies most directly to shareholders?

- A. return on assets and profit margin
- B. quick ratio and times interest earned
- C. price-earnings ratio and debt-equity ratio
- D. market-to-book ratio and price-earnings ratio**
- E. cash coverage ratio and times equity multiplier

Difficulty level: Medium

Topic: MARKET VALUE RATIOS

Type: DEFINITIONS

57. The three parts of the Du Pont identity can be generally described as:

- I. operating efficiency, asset use efficiency and firm profitability.
 - II. financial leverage, operating efficiency and asset use efficiency.
 - III. the equity multiplier, the profit margin and the total asset turnover.
 - IV. the debt-equity ratio, the capital intensity ratio and the profit margin.
- A. I and II only
 - B. II and III only**
 - C. I and IV only
 - D. I and III only
 - E. III and IV only

Difficulty level: Medium
Topic: DU PONT IDENTITY
Type: DEFINITIONS

58. If a firm decreases its operating costs, all else constant, then:

- A. the profit margin increases while the equity multiplier decreases.
- B. the return on assets increases while the return on equity decreases.
- C. the total asset turnover rate decreases while the profit margin increases.
- D. both the profit margin and the equity multiplier increase.
- E. both the return on assets and the return on equity increase.**

Difficulty level: Medium
Topic: DU PONT IDENTITY
Type: DEFINITIONS

59. Which one of the following statements is correct?

- A. Book values should always be given precedence over market values.
- B. Financial statements are frequently the basis used for performance evaluations.**
- C. Historical information has no value when predicting the future.
- D. Potential lenders place little value on financial statement information.
- E. Reviewing financial information over time has very limited value.

Difficulty level: Medium
Topic: EVALUATING FINANCIAL STATEMENTS
Type: DEFINITIONS

60. It is easier to evaluate a firm using its financial statements when the firm:
- A. is a conglomerate.
 - B. is global in nature.
 - C.** uses the same accounting procedures as other firms in its industry.
 - D. has a different fiscal year than other firms in its industry.
 - E. tends to have one-time events such as asset sales and property acquisitions.

Difficulty level: Medium

Topic: EVALUATING FINANCIAL STATEMENTS

Type: DEFINITIONS

61. Which two of the following represent the most effective methods of directly evaluating the financial performance of a firm?
- I. comparing the current financial ratios to those of the same firm from prior time periods
 - II. comparing a firm's financial ratios to those of other firms in the firm's peer group who have similar operations
 - III. comparing the financial statements of the firm to the financial statements of similar firms operating in other countries
 - IV. comparing the financial ratios of the firm to the average ratios of all firms located in the same geographic area
- A.** I and II only
 - B. II and III only
 - C. III and IV only
 - D. I and IV only
 - E. I and III only

Difficulty level: Medium

Topic: EVALUATING FINANCIAL STATEMENTS

Type: DEFINITIONS

62. In the financial planning model, external funds needed (EFN) is equal to changes in
- A. assets - (liabilities - equity).
 - B.** assets - (liabilities + equity).
 - C. (assets + liabilities - equity).
 - D. (assets + equity - liabilities).
 - E. assets - equity.

Difficulty level: Medium

Topic: EXTERNAL FUNDS NEEDED

Type: DEFINITIONS

63. Which of the following represent problems encountered when comparing the financial statements of one firm with those of another firm?

- I. Either one, or both, of the firms may be conglomerates and thus have unrelated lines of business.
 - II. The operations of the two firms may vary geographically.
 - III. The firms may use differing accounting methods for inventory purposes.
 - IV. The two firms may be seasonal in nature and have different fiscal year ends.
- A. I and II only
 - B. II and III only
 - C. I, III, and IV only
 - D. I, II, and III only
 - E.** I, II, III, and IV

Difficulty level: Medium

Topic: EVALUATING FINANCIAL STATEMENTS

Type: DEFINITIONS

64. A firm's sustainable growth rate in sales directly depends on its:

- A. debt to equity ratio.
- B. profit margin.
- C. dividend policy.
- D. asset efficiency.
- E.** All of the above.

Difficulty level: Medium

Topic: SUSTAINABLE GROWTH RATE

Type: DEFINITIONS

65. The sustainable growth rate will be equivalent to the internal growth rate when:

- A.** a firm has no debt.
- B. the growth rate is positive.
- C. the plowback ratio is positive but less than 1.
- D. a firm has a debt-equity ratio exactly equal to 1.
- E. net income is greater than zero.

Difficulty level: Medium

Topic: SUSTAINABLE GROWTH RATE

Type: DEFINITIONS

66. The sustainable growth rate:

- A. assumes there is no external financing of any kind.
- B.** is normally higher than the internal growth rate.
- C. assumes the debt-equity ratio is variable.
- D. is based on receiving additional external debt and equity financing.
- E. assumes that 100% of all income is retained by the firm.

Difficulty level: Medium

Topic: SUSTAINABLE GROWTH RATE

Type: DEFINITIONS

67. If a firm bases its growth projection on the rate of sustainable growth, and shows positive net income, then the:

- A. fixed assets will have to increase at the same rate, regardless of the current capacity level.
- B. number of common shares outstanding will increase at the same rate of growth.
- C. debt-equity ratio will have to increase.
- D.** debt-equity ratio will remain constant while retained earnings increase.
- E. fixed assets, debt-equity ratio, and number of common shares outstanding will all increase.

Difficulty level: Medium

Topic: SUSTAINABLE GROWTH RATE

Type: DEFINITIONS

68. Marcie's Mercantile wants to maintain its current dividend policy, which is a payout ratio of 40%. The firm does not want to increase its equity financing but is willing to maintain its current debt-equity ratio. Given these requirements, the maximum rate at which Marcie's can grow is equal to:

- A. 40% of the internal rate of growth.
- B. 60% of the internal rate of growth.
- C. the internal rate of growth.
- D.** the sustainable rate of growth.
- E. 60% of the sustainable rate of growth.

Difficulty level: Medium

Topic: SUSTAINABLE GROWTH RATE

Type: DEFINITIONS

69. One of the primary weaknesses of many financial planning models is that they:
- A. rely too much on financial relationships and too little on accounting relationships.
 - B. are iterative in nature.
 - C. ignore the goals and objectives of senior management.
 - D. are based solely on best case assumptions.
 - E.** ignore the size, risk, and timing of cash flows.

Difficulty level: Medium

Topic: FINANCIAL PLANNING MODELS

Type: DEFINITIONS

70. Financial planning, when properly executed:
- A. ignores the normal restraints encountered by a firm.
 - B. ensures that the primary goals of senior management are fully achieved.
 - C. reduces the necessity of daily management oversight of the business operations.
 - D.** helps ensure that proper financing is in place to support the desired level of growth.
 - E. eliminates the need to plan more than one year in advance.

Difficulty level: Medium

Topic: FINANCIAL PLANNING

Type: DEFINITIONS

71. When examining the EBITDA ratio, lower numbers are:
- A.** considered good.
 - B. considered mediocre.
 - C. considered poor.
 - D. indifferent to higher numbers.
 - E. it is impossible to garner information from this ratio.

Difficulty level: Medium

Topic: EBITDA RATIO

Type: DEFINITIONS

72. A firm's market capitalization is equal to:
- A. total book value of assets less book value of debt.
 - B. par value of common equity.
 - C.** firm's stock price multiplied by number of shares outstanding.
 - D. firm's stock price multiplied by the number of shares authorized.
 - E. the maximum value an acquirer would pay for a firm in an acquisition.

Difficulty level: Medium
Topic: MARKET CAPITALIZATION
Type: DEFINITIONS

73. Enterprise value focused on:
- A.** market values of debt and equity.
 - B. book values of debt and assets.
 - C. market value of equity and book value of debt.
 - D. book value of debt and market value of equity.
 - E. book values of debt and equity.

Difficulty level: Medium
Topic: ENTERPRISE VALUE
Type: DEFINITIONS

74. A firm has sales of \$1,200, net income of \$200, net fixed assets of \$500, and current assets of \$300. The firm has \$100 in inventory. What is the common-size statement value of inventory?
- A. 8.3%
 - B.** 12.5%
 - C. 20.0%
 - D. 33.3%
 - E. 50.0%

$$\text{Common-size inventory} = \$100 \div (\$500 + \$300) = .125 = 12.5\%$$

Difficulty level: Medium
Topic: COMMON-SIZE STATEMENTS
Type: PROBLEMS

75. A firm has sales of \$1,500, net income of \$100, total assets of \$1,000, and total equity of \$700. Interest expense is \$50. What is the common-size statement value of the interest expense?

- A.** 3.3%
- B. 5.0%
- C. 7.1%
- D. 16.7%
- E. 50.0%

$$\text{Common-size interest} = \$50 \div \$1,500 = .033 = 3.3\%$$

Difficulty level: Medium

Topic: COMMON-SIZE STATEMENTS

Type: PROBLEMS

76. Jessica's Boutique has cash of \$50, accounts receivable of \$60, accounts payable of \$200, and inventory of \$150. What is the value of the quick ratio?

- A. .30
- B.** .55
- C. .77
- D. 1.30
- E. 1.82

$$\text{Quick ratio} = (\$50 + \$60) \div \$200 = .55$$

Difficulty level: Medium

Topic: LIQUIDITY RATIOS

Type: PROBLEMS

77. A firm has a debt-equity ratio of .40. What is the total debt ratio?

- A.** .29
- B. .33
- C. .67
- D. 1.40
- E. 1.50

The debt-equity ratio is .40. Thus, if total debt is \$40, total equity is \$100 and total assets are \$140. Total debt ratio = $\$40 \div \$140 = .29$

Difficulty level: Medium

Topic: LONG-TERM SOLVENCY RATIOS

Type: PROBLEMS

78. A firm has total debt of \$1,200 and a debt-equity ratio of .30. What is the value of the total assets?

- A. \$1,560
- B. \$3,000
- C. \$3,600
- D. \$4,000
- E.** \$5,200

Total equity = $\$1,200 \div .30 = \$4,000$; Total assets = $\$1,200 + \$4,000 = \$5,200$

Difficulty level: Medium

Topic: LONG-TERM SOLVENCY RATIOS

Type: PROBLEMS

79. A firm has sales of \$3,600, costs of \$2,800, interest paid of \$100, and depreciation of \$400. The tax rate is 34%. What is the value of the cash coverage ratio?

- A. 2
- B. 4
- C. 6
- D. 8**
- E. 10

$$\text{Cash coverage ratio} = (\$3,600 - \$2,800) \div \$100 = 8$$

Difficulty level: Medium

Topic: LONG-TERM SOLVENCY RATIOS

Type: PROBLEMS

80. Rosita's Resources paid \$250 in interest and \$130 in dividends last year. The times interest earned ratio is 3.8 and the depreciation expense is \$60. What is the value of the cash coverage ratio?

- A. 2.40
- B. 3.52
- C. 3.80
- D. 4.04**
- E. 4.28

$$\text{EBIT} = 3.8 \times \$250 = \$950; \text{Cash coverage ratio} = (\$950 + \$60) \div \$250 = 4.04$$

Difficulty level: Medium

Topic: LONG-TERM SOLVENCY RATIOS

Type: PROBLEMS

81. Mario's Home Systems has sales of \$2,800, cost of goods sold of \$2,100, inventory of \$500, and accounts receivable of \$400. How many days, on average, does it take Mario's to sell its inventory?

- A. 65.2 days
- B. 85.2 days
- C. 86.9 days**
- D. 96.9 days
- E. 117.3 days

Inventory turnover = $\$2,100 \div \$500 = 4.2$; Days in inventory = $365 \div 4.2 = 86.9$ days

Difficulty level: Medium

Topic: ASSET MANAGEMENT RATIOS

Type: PROBLEMS

82. Syed's Industries has accounts receivable of \$700, inventory of \$1,200, sales of \$4,200, and cost of goods sold of \$3,400. How long does it take Syed's to both sell its inventory and then collect the payment on the sale?

- A. 128 days
- B. 146 days
- C. 163 days
- D. 190 days**
- E. 211 days

Inventory turnover = $\$3,400 \div \$1,200 = 2.83$; Days in inventory = $365 \div 2.83 = 128.98$;
Accounts receivable turnover = $\$4,200 \div \$700 = 6$; Days' sales in receivables = $365 \div 6 = 60.83$;
Total days in inventory and receivables = $128.98 + 60.83 = 189.81$ days = 190 days (rounded)

Difficulty level: Medium

Topic: ASSET MANAGEMENT RATIOS

Type: PROBLEMS

83. A firm has net working capital of \$400, net fixed assets of \$2,400, sales of \$6,000, and current liabilities of \$800. How many dollars worth of sales are generated from every \$1 in total assets?

- A. \$1.33
- B. \$1.67**
- C. \$1.88
- D. \$2.33
- E. \$2.50

Total asset turnover = $\$6,000 \div [(\$400 + \$800) + \$2,400] = 1.67$; Every \$1 in total assets generates \$1.67 in sales.

Difficulty level: Medium

Topic: ASSET MANAGEMENT RATIOS

Type: PROBLEMS

84. Rosita's Restaurant has sales of \$4,500, total debt of \$1,300, total equity of \$2,400, and a profit margin of 5%. What is the return on assets?

- A. 5.00%
- B. 6.08%**
- C. 7.39%
- D. 9.38%
- E. 17.31%

Return on assets = $(.05 \times \$4,500) \div (\$1,300 + \$2,400) = \$225 \div \$3,700 = .0608 = 6.08\%$

Difficulty level: Medium

Topic: PROFITABILITY RATIOS

Type: PROBLEMS

85. Lee Sun's has sales of \$3,000, total assets of \$2,500, and a profit margin of 5%. The firm has a total debt ratio of 40%. What is the return on equity?

- A. 6%
- B. 8%
- C. 10%**
- D. 12%
- E. 15%

$$\text{Return on equity} = (.05 \times \$3,000) \div [\$2,500 \times (1 - .40)] = \$150 \div \$1,500 = .10 = 10\%$$

Difficulty level: Medium

Topic: PROFITABILITY RATIOS

Type: PROBLEMS

86. Jupiter Explorers has \$6,400 in sales. The profit margin is 4%. There are 6,400 shares of stock outstanding. The market price per share is \$1.20. What is the price-earnings ratio?

- A. 13
- B. 14
- C. 21
- D. 30**
- E. 48

$$\text{Earnings per share} = (.04 \times \$6,400) \div 6,400 = .04; \text{Price-earnings ratio} = \$1.20 \div .04 = 30$$

Difficulty level: Medium

Topic: MARKET VALUE RATIOS

Type: PROBLEMS

87. Patti's has net income of \$1,800, a price-earnings ratio of 12, and earnings per share of \$1.20. How many shares of stock are outstanding?

- A. 1,200
- B. 1,400
- C. 1,500**
- D. 1,600
- E. 1,800

Number of shares = $\$1,800 \div \$1.20 = 1,500$

Difficulty level: Medium
Topic: MARKET VALUE RATIOS
Type: PROBLEMS

88. A firm has 5,000 shares of stock outstanding, sales of \$6,000, net income of \$800, a price-ratio of 10, and a book value per share of \$.50. What is the market-to-book ratio?

- A. 1.6
- B. 2.4
- C. 3.0
- D. 3.2**
- E. 3.6

Earnings per share = $\$800 \div 5,000 = \$.16$; Price per share = $\$.16 \times 10 = \1.60 ; Market-to-book ratio = $\$1.60 \div \$.50 = 3.2$

Difficulty level: Medium
Topic: MARKET VALUE RATIOS
Type: PROBLEMS

89. A firm has 5,000 shares of stock outstanding, sales of \$6,000, an enterprise value of \$5 million and an EBITDA of 1 million. What is the enterprise value multiple?

- A. 2.2
- B. 2.4
- C. 3.0
- D. 4.0
- E.** 5.0

Enterprise value multiple = enterprise value/EBITDA = \$5 million/\$1 million = 5.

Difficulty level: Medium

Topic: ENTERPRISE VALUE MULTIPLE

Type: PROBLEMS

90. A firm has a market capitalization of \$2 million, market value of interest bearing debt of \$1 million, book value of interest bearing debt of \$500,000 and cash of \$100,000. What is the enterprise value?

- A. \$2.5 million
- B.** \$2.9 million
- C. \$3.0 million
- D. \$3.5 million
- E. \$3.6 million

Enterprise value = \$2 million + \$1 million - \$100,000 = 2.9 million

Difficulty level: Medium

Topic: ENTERPRISE VALUE

Type: PROBLEMS

91. Frederico's has a profit margin of 6%, a return on assets of 8%, and an equity multiplier of 1.4. What is the return on equity?

- A. 6.7%
- B. 8.4%
- C. 11.2%**
- D. 14.6%
- E. 19.6%

Return on equity = $8\% \times 1.4 = 11.2\%$, using the Du Pont Identity

Difficulty level: Medium
Topic: DU PONT IDENTITY
Type: PROBLEMS

92. Samuelson's has a debt-equity ratio of 40%, sales of \$8,000, net income of \$600, and total debt of \$2,400. What is the return on equity?

- A. 6.25%
- B. 7.50%
- C. 9.75%
- D. 10.00%**
- E. 11.25%

Return on equity = $\$600 \div (\$2,400 \div .40) = .10 = 10\%$

Difficulty level: Medium
Topic: DU PONT IDENTITY
Type: PROBLEMS

93. A firm has a return on equity of 15%. The debt-equity ratio is 50%. The total asset turnover is 1.25 and the profit margin is 8%. The total equity is \$3,200. What is the amount of the net income?

- A. \$480
- B. \$500
- C. \$540
- D. \$600
- E. \$620

Using the Du Pont identity: Total assets = $(1 + .50) \times \$3,200 = \$4,800$; Total sales = $\$4,800 \times 1.25 = \$6,000$; Net income = $\$6,000 \times .08 = \480

Difficulty level: Medium
Topic: DU PONT IDENTITY
Type: PROBLEMS

Windswept, Inc.
2008 Income Statement
 (\$ in millions)

Net sales	\$8,450
Less: Cost of goods sold	7,240
Less: Depreciation	<u>400</u>
Earnings before interest and taxes	810
Less: Interest paid	<u>70</u>
Taxable Income	\$ 740
Less: Taxes	<u>259</u>
Net income	<u>\$ 481</u>

Windswept, Inc.
2007 and 2008 Balance Sheets
 (\$ in millions)

	<u>2007</u>	<u>2008</u>		<u>2007</u>	<u>2008</u>
Cash	\$ 120	\$ 140	Accounts payable	\$1,110	\$1,120
Accounts rec.	930	780	Long-term debt	840	1,210
Inventory	<u>1,480</u>	<u>1,520</u>	Common stock	3,200	3,000
Total	<u>\$2,530</u>	<u>\$2,440</u>	Retained earnings	<u>530</u>	<u>710</u>
Net fixed assets	<u>3,150</u>	<u>3,600</u>			
Total assets	<u>\$5,680</u>	<u>\$6,040</u>	Total liabilities & equity	<u>\$5,680</u>	<u>\$6,040</u>

94. What is the quick ratio for 2008?

- A.** .82
- B. .95
- C. 1.36
- D. 2.18
- E. 2.28

$$\text{Quick ratio for 2008} = (\$2,440 - \$1,520) \div \$1,120 = .82$$

Difficulty level: Easy
Topic: LIQUIDITY RATIOS
Type: PROBLEMS

95. What is the days' sales in receivables in 2008?

- A. 31.8 days
- B.** 33.7 days
- C. 38.4 days
- D. 41.9 days
- E. 47.4 days

$$\text{Accounts receivable turnover for 2008} = \$8,450 \div \$780 = 10.83; \text{ Days' sales in receivables for } 2008 = 365 \div 10.83 = 33.7$$

Difficulty level: Medium
Topic: ASSET MANAGEMENT RATIOS
Type: PROBLEMS

96. What is the equity multiplier for 2008?

- A.** 1.6
- B. 1.8
- C. 2.0
- D. 2.3
- E. 2.5

$$\text{Equity multiplier for 2008} = \$6,040 \div (\$3,000 + \$710) = 1.6$$

Difficulty level: Medium
Topic: FINANCIAL LEVERAGE RATIOS
Type: PROBLEMS

97. What is the cash coverage ratio for 2008?

- A. 11.6
- B. 12.8
- C. 13.7
- D.** 17.3
- E. 18.8

Cash coverage ratio for 2008 = $(\$810 + \$400) \div \$70 = 17.3$

Difficulty level: Medium

Topic: FINANCIAL LEVERAGE RATIOS

Type: PROBLEMS

98. What is the return on equity for 2008?

- A. 5.7%
- B. 6.8%
- C.** 13.0%
- D. 15.3%
- E. 16.0%

Return on equity for 2008 = $\$481 \div (\$3,000 + \$710) = .13 = 13\%$

Difficulty level: Medium

Topic: PROFITABILITY RATIOS

Type: PROBLEMS

99. Windswept, Inc. has 90 million shares of stock outstanding. Its price-earnings ratio for 2008 is 12. What is the market price per share of stock?

- A. \$57.12
- B. \$59.94
- C. \$62.82
- D. \$64.13**
- E. \$65.03

Earnings per share for 2008 = \$481 million ÷ 90 million = \$5.3444; Market price per share = \$5.3444 × 12 = \$64.13

Difficulty level: Medium
Topic: PROFITABILITY RATIOS
Type: PROBLEMS

Bayside Inc.
2008 Income Statement
 (\$ in thousands)

Net sales	\$5,680
Less: Cost of goods sold	4,060
Less: Depreciation	<u>420</u>
Earnings before interest and taxes	1,200
Less: Interest paid	<u>30</u>
Taxable Income	\$1,170
Less: Taxes	<u>410</u>
Net income	<u>\$ 760</u>

Bayside, Inc.
2007 and 2008 Balance Sheets
 (\$ in thousands)

	<u>2007</u>	<u>2008</u>		<u>2007</u>	<u>2008</u>
Cash	\$ 70	\$ 180	Accounts payable	\$1,350	\$1,170
Accounts rec.	980	840	Long-term debt	720	500
Inventory	<u>1,560</u>	<u>1,990</u>	Common stock	3,200	3,500
Total	\$2,610	\$3,010	Retained earnings	<u>940</u>	<u>1,200</u>
Net fixed assets	<u>3,600</u>	<u>3,360</u>			
Total assets	<u>\$6,210</u>	<u>\$6,370</u>	Total liabilities & equity	<u>\$6,210</u>	<u>\$6,370</u>

100. In 2008, how many days on average did it take Bayside to sell its inventory?

- A. 126.1 days
- B. 127.9 days
- C. 153.8 days
- D. 176.5 days
- E.** 178.9 days

Inventory turnover for 2008 = $\$4,060 \div \$1,990 = 2.04$; Days' sales in inventory = $365 \div 2.04 = 178.9$ days

Difficulty level: Medium

Topic: ASSET MANAGEMENT RATIOS

Type: PROBLEMS

101. What is the debt-equity ratio for 2008?

- A. 22.5%
- B. 26.2%
- C.** 35.5%
- D. 45.1%
- E. 47.7%

Debt-equity ratio for 2008 = $(\$1,170 + \$500) \div (\$3,500 + \$1,200) = .355 = 35.5\%$

Difficulty level: Medium

Topic: FINANCIAL LEVERAGE RATIOS

Type: PROBLEMS

102. What is the times interest earned ratio for 2008?

- A. 30
- B. 36
- C.** 40
- D. 50
- E. 54

Times interest earned for 2008 = $\$1,200 \div \$30 = 40$

Difficulty level: Medium

Topic: FINANCIAL LEVERAGE RATIOS

Type: PROBLEMS

103. What is the equity multiplier for 2008?

- A. 1.21
- B. 1.36**
- C. 1.44
- D. 1.82
- E. 1.91

$$\text{Equity multiplier for 2008} = \$6,370 \div (\$3,500 + \$1,200) = 1.36$$

Difficulty level: Medium

Topic: FINANCIAL LEVERAGE RATIOS

Type: PROBLEMS

104. What is the return on equity for 2008?

- A. 16.2%**
- B. 20.9%
- C. 21.7%
- D. 22.1%
- E. 23.3%

$$\text{Return on equity for 2008} = \$760 \div (\$3,500 + \$1,200) = .162 = 16.2\%$$

Difficulty level: Medium

Topic: PROFITABILITY RATIOS

Type: PROBLEMS

105. The Green Giant has a 5% profit margin and a 40% dividend payout ratio. The total asset turnover is 1.40 and the equity multiplier is 1.50. What is the sustainable rate of growth?

- A. 6.30%
- B. 6.53%
- C. 6.72%**
- D. 6.80%
- E. 6.83%

Return on equity = $.05 \times 1.40 \times 1.50 = .105$; Sustainable growth = $\{.105 \times (1 - .40)\} \div \{1 - [.105 \times (1 - .40)]\} = .06724 = 6.72\%$

Difficulty level: Medium

Topic: SUSTAINABLE GROWTH AND DU PONT IDENTITY

Type: PROBLEMS

106. Neal's Nails has an 11% return on assets and a 30% dividend payout ratio. What is the internal growth rate?

- A. 7.11%
- B. 7.70%
- C. 8.34%**
- D. 8.46%
- E. 11.99%

Internal growth rate = $\{.11 \times (1 - .30)\} \div \{1 - [.11 \times (1 - .30)]\} = 8.34\%$

Difficulty level: Medium

Topic: INTERNAL GROWTH RATE

Type: PROBLEMS

107. Katelyn's Kites has net income of \$240 and total equity of \$2,000. The debt-equity ratio is 1.0 and the plowback ratio is 40%. What is the internal growth rate?

- A. 2.46%
- B. 3.00%
- C. 4.92%
- D. 5.88%
- E. 6.00%

Total assets = \$2,000 + \$2,000 = \$4,000 (The debt-equity ratio of 1.0 means TD = TE.);
Return on assets = \$240 ÷ \$4,000 = .06; Internal growth = $[\text{.06} \times \text{.40}] \div [1 - (\text{.06} \times \text{.40})] = 2.46\%$

Difficulty level: Medium

Topic: INTERNAL GROWTH RATE

Type: PROBLEMS

Essay Questions

108. Why is it important for managers to understand the importance of both the internal and the sustainable rates of growth?

One reason that causes firms to go out of business is the lack of external funding to support the growth of the firm. Understanding the implications of both the internal and sustainable growth rates can help management know when to limit firm growth such that the growth does not exceed the availability of the necessary financing to fund that growth.

Topic: INTERNAL AND SUSTAINABLE GROWTH

Type: ESSAYS

109. State the assumptions that underlie the sustainable growth rate and interpret what the sustainable growth rate means.

The usual assumptions are: Costs and assets increase proportionately with sales, the dividend payout ratio is fixed (or is given), the current debt-equity ratio is optimal, and no new equity sales are possible. The sustainable growth rate is the maximum rate at which sales can increase with the restriction that no new equity sales are possible and long-term debt increases only in an amount that keeps the debt-equity ratio fixed.

*Topic: SUSTAINABLE GROWTH
Type: ESSAYS*

110. Suppose a firm calculates its external funding needs and finds that it is negative. What are the firm's options in this case?

With a negative external financing need, the firm has a surplus of funds that it can use to reduce current liabilities, reduce long-term debt, buy back common stock, or increase dividends. If acceptable opportunities exist, firms might also use the extra funds to add assets.

*Topic: NEGATIVE EFN
Type: ESSAYS*

111. Robert Morris Associates publishes peer group financial information for a host of industries, yet the numbers typically only appear in common-size form. Why not report average dollar amounts instead?

The common-size numbers are inherently more useful since they can be directly compared to the financial statements of any firm. If average dollar figures were presented, these numbers would have to be converted to common-size numbers to facilitate comparisons. Plus, since RMA also publishes average sales and average total assets, the user can always work backwards to figure out the dollar amounts represented by each category.

*Topic: COMMON SIZE STATEMENTS
Type: ESSAYS*

112. A firm has days' sales in inventory of 105 days, an average collection period of 35 days, and takes 42 days, on average, to pay its accounts payable. Taken together, what do these three figures imply about the firm's operations and its cash flows?

It takes, on average, 105 days to sell inventory once it is purchased by the firm, then it takes another 35 days to collect on the receivables. Thus, the firm must finance the inventory and receivables for 140 days. The first 42 days are financed with payables, on average, leaving 98 days worth of inventory and receivables that it must finance using other sources. In terms of cash flow, the average cash outflow occurs 42 days after inventory is purchased while the average cash inflow occurs 98 days later, which is 140 days after the inventory is purchased by the firm.

Topic: DAYS RATIOS
Type: ESSAYS

113. Suppose you calculated the following ratio for a firm: The sum of the compensation paid to the owners, directors, and managers, divided by total sales. Which class of financial ratios should this be included in and why? Who might be interested in such a ratio?

This doesn't fit well into any of the five categories presented in the book although it would most likely be included as a profitability ratio because it is a measure of how much of each dollar in sales is used to pay these salaries. The ratio would likely be important to all of the three groups (owners, directors, managers) included in the ratio, plus it would likely be important to lenders as a measure of how much of the firm's income these groups draw out of the business.

Topic: OTHER RATIOS
Type: ESSAYS

114. Which is a more meaningful measure of profitability for a firm, return on assets or return on equity? Why?

Most would argue ROE since it measures returns relative to the amount of money shareholders have invested in the firm. In addition, since shareholder wealth maximization is a firm's primary goal, it makes more sense to look at this measure.

Topic: ROE VERSUS ROA
Type: ESSAYS

Chapter 03 - Financial Statements Analysis and Long-Term Planning

115. It is often said that anyone with a pencil can calculate financial ratios, but it takes a brain to interpret them. What kinds of things should an analyst keep in mind when evaluating the financial statements of a given firm?

This question is totally open-ended and allows students to call into play knowledge gleaned from other courses, this course, and personal experience. As a minimum, students should include some of these considerations: type of industry, accounting methods, fiscal year end, cyclical nature of the business, industry trends and the state of the economy.

Topic: EVALUATING FINANCIAL STATEMENTS

Type: ESSAYS

116. List and interpret two liquidity ratios.

Choose any two of the following:

- 1. Current ratio: a firm's ability to meet its financial obligations as they come due over the coming year*
- 2. Quick ratio: a firm's ability to meet its near-term financial obligations without selling any inventory*
- 3. Cash ratio: a firm's ability to meet its near-term financial obligations without depending on the liquidation of inventory or accounts receivable*

Topic: LIQUIDITY RATIOS

Type: ESSAYS