# 20 FINANCIAL ANALYSIS TECHNIQUES

1. The difference between the current ratio and the quick ratio is that the quick ratio excludes:
   (A) non-current assets.
   (B) inventory.
   (C) marketable securities.

2. Which of the following items is NOT in the numerator of the quick ratio?
   (A) Receivables.
   (B) Cash.
   (C) Inventory.

3. Paragon Company's operating profits are \$100,000, interest expense is \$25,000, and earnings before taxes are \$75,000. What is Paragon's interest coverage ratio?
   (A) 1 time.
   (B) 3 times.
   (C) 4 times.

4. An analyst has collected the following data about a firm:
   - Receivables turnover = 10 times.
   - Inventory turnover = 8 times.
   - Payables turnover = 12 times.

   The firm's cash conversion cycle is *closest to:*
   (A) 82 days.
   (B) 134 days.
   (C) 52 days.

5. Which of the following is a measure of a firm's liquidity?
   (A) Current Ratio.
   (B) Equity Turnover.
   (C) Net Profit Margin.

6. An analyst gathered the following data about a company:
   - Current liabilities are $300.
   - Total debt is $900.
   - Working capital is $200.
   - Capital expenditures are $250.
   - Total assets are $2,000.
   - Cash flow from operations is $400.

   If the company would like a current ratio of 2, they could:

   (A) increase current assets by 100 or increase current liabilities by 50.

   (B) increase current assets by 100 or decrease current liabilities by 50.

   (C) decrease current assets by 100 or increase current liabilities by 50.

7. An analyst gathered the following information about a company.

| Balance Sheet | |
|---|---|
| Assets | |
| Cash | 100 |
| Accounts Receivable | 750 |
| Marketable Securities | 300 |
| Inventory | 850 |
| Property, Plant & Equip | 900 |
| Accumulated Depreciation | (150) |
| Total Assets | 2750 |
| Liabilities and Equity | |
| Accounts Payable | 300 |
| Short-Term Debt | 130 |
| Long-Term Debt | 700 |
| Common Equity | 1000 |
| Retained Earnings | 620 |
| Total Liab. and Stockholder's equity | 2750 |

| Income Statement | |
|---|---|
| Sales | 1500 |
| COGS | 1100 |
| Gross Profit | 400 |
| SG&A | 150 |
| Operating Profit | 250 |

| | |
|---|---|
| Interest Expense | 25 |
| Taxes | 75 |
| Net Income | 150 |

What is the ROE?

(A) 9.3%.

(B) 9.9%.

(C) 10.7%.

8. Companies are required to report segment data under:

(A) both IFRS and U.S. GAAP.

(B) IFRS but not U.S. GAAP.

(C) U.S. GAAP but not !FRS.

9. Assume that Q-Tell Incorporated is in the communications industry, which has an average receivables turnover ratio of 16 times. If the Q-Tell's receivables turnover is less than that of the industry, Q-Tell's average receivables collection period is *most likely.*

(A) 20 days.

(B) 12 days.

(C) 25 days.

10. The traditional DuPont equation decomposes return on equity as:

(A) EBIT/sales x sales/assets x assets/equity x (1 - tax rate).

(B) net income/sales x sales/assets x assets/equity.

(C) net income/assets x sales/equity x assets/sales.

11. An analysis of the industry reveals that firms have been paying out 45% of their earnings in dividends, asset turnover = 1.2; asset-to-equity (A/E) = 1.1 and profit margins are 8%. What is the industry's projected growth rate?

(A) 4.55%.

(B) 4.95%.

(C) 5.81%.

12. What is the net income of a firm that has a return on equity of 12%, a leverage ratio of 1.5, an asset turnover of 2, and revenue of $1 million?

(A) $40,000.

(B) $360,000.

(C) $36,000.

13. If a firm has net annual sales of $250,000 and average receivables of $150,000, its average collection period is closest to:

(A) 219.0 days.

(B) 1.7 days.

(C) 46.5 days.

14. An analyst calculates the following data for three firms in an industry over the most recent 40 quarters:

| | Sales Mean | Std Dev | Net income Mean | Std Dev |
|---|---|---|---|---|
| Jerome | 1,200,000 | 400,000 | 120,000 | 80,000 |
| Lawrence | 3,500,000 | 700,000 | 400,000 | 300,000 |
| Morris | 6,400,000 | 1,600,000 | 800,000 | 400,000 |

Based only on these data, the analyst should conclude that, relative to the other two firms:

(A) Lawrence has the greatest uncertainty about its net income.

(B) Morris has the greatest uncertainty about its sales.

(C) Jerome has the least uncertainty about its net income.

15. Pastel Company operates in the following lines of business which management believes have distinguishable return and risk characteristics:

| | Revenues | Assets |
|---|---|---|
| Food | 500 | 2,000 |
| Beverages | 1,300 | 6,000 |
| Entertainment | 2,500 | 10,000 |
| Lodging | 5,000 | 20,000 |
| Services | 22,000 | 28,000 |
| International | 700 | 3,000 |
| Totals | 32,000 | 69,000 |

For which of these lines is Pastel required to report segment data?

(A) Entertainment, Lodging, and Services.

(B) Services and International.

(C) International only.

16. Comparative income statements for E Company and G Company for the year ended December 31 show the following (in $ millions):

| | E Company | G Company |
|---|---|---|
| Sales | 70 | 90 |
| Cost of Goods Sold | (30) | (40) |
| Gross Profit | 40 | 50 |
| Sales and Administration | (5) | (15) |
| Depreciation | (5) | (10) |
| Operating Profit | 30 | 25 |
| Interest Expense | (20) | (5) |
| Earnings Before Taxes | 10 | 20 |
| Income Taxes | (4) | (8) |
| Earnings after Taxes | 6 | 12 |

The financial risk of E Company, as measured by the interest coverage ratio, is:

(A) higher than G Company's because its interest coverage ratio is less than G Company's, but at least one-third of G Company's.

(B) higher than G Company's because its interest coverage ratio is less than one-third of G Company's.

(C) lower than G Company's because its interest coverage ratio is at least three times G Company's.

17. An analyst has gathered the following information about a company:

- Cost of goods sold = 65% of sales.
- Inventory of $450,000.
- Sales of $1 million.

What is the value of this firm's average inventory processing period using a 365-day year?

(A) 0.7 days.

(B) 1.4 days.

(C) 252.7 days.

18. Eagle Manufacturing Company reported the following selected financial information for 2007:

| | |
|---|---|
| Accounts payable turnover | 5.0 |
| Cost of goods sold | $30 million |
| Average inventory | $3 million |
| Average receivables | $8 million |

| | |
|---|---|
| Total liabilities | $35 million |
| Interest expense | $2 million |
| Cash conversion cycle | 13.5 days |

Assuming 365 days in the calendar year, calculate Eagle's sales for the year.

(A) $57.8 million.

(B) $52.3 million.

(C) $58.4 million.

19. An analyst has collected the following data about a firm:

- Receivables turnover = 20 times.
- Inventory turnover = 16 times.
- Payables turnover = 24 times.

What is the cash conversion cycle?

(A) 26 days.

(B) 56 days.

(C) Not enough information is given.

20. Are the following ratios *best* classified as profitability ratios?

**Ratio #1 -** Cash plus short-term marketable investments plus receivables divided by average daily cash expenditures.

**Ratio #2 -** Earnings before interest and taxes divided by average total assets.

(A) Both of the ratios are profitability ratios.

(B) Neither of the ratios is a profitability ratio.

(C) Only one of the ratios is a profitability ratio.

21. An analyst has gathered the following information about a company:

| Balance Sheet | |
|---|---|
| Assets | |
| Cash | 100 |
| Accounts Receivable | 750 |
| Marketable Securities | 300 |
| Inventory | 850 |
| Property, Plant & Equip | 900 |
| Accumulated Depreciation | (150) |
| Total Assets | 2750 |
| Liabilities and Equity | |

| | |
|---|---|
| Accounts Payable | 300 |
| Short-Term Debt | 130 |
| Long-Term Debt | 700 |
| Common Stock | 1000 |
| Retained Earnings | 620 |
| Total Liab. and Stockholder's equity | 2750 |

| Income Statement | |
|---|---|
| Sales | 1500 |
| COGS | 1100 |
| Gross Profit | 400 |
| SG&A | 150 |
| Operating Profit | 250 |
| Interest Expense | 25 |
| Taxes | 75 |
| Net Income | 150 |

What is the receivables turnover ratio?

(A) 1.0.

(B) 0.5.

(C) 2.0.

22. Summit Co. has provided the following information for its most recent reporting period:

| | Beginning Figures | Ending Figures | Average Figures |
|---|---|---|---|
| Sales | | $ 5,000,000 | |
| EBIT | | $ 800,000 | |
| Interest Expense | | $ 160,000 | |
| Taxes | | $ 256,000 | |
| Assets | $ 3,500,000 | $ 4,000,000 | $ 3,750,000 |
| Equity | $ 1,700,000 | $ 2,000,000 | $ 1,850,000 |

What is Summit Co.'s total asset turnover and return on equity?

| | Total Asset Turnover | Return on Equity |
|---|---|---|
| (A) | 1.25 | 20.8% |
| (B) | 1.33 | 15.8% |
| (C) | 1.33 | 20.8% |

23. A firm's financial statements reflect the following:

| | |
|---|---|
| EBIT | $2,000,000 |
| Sales | $16,000,000 |
| Interest expense | $900,000_1 |
| Total assets | $12,300,000 |
| Equity | $7,000,000 |
| Effective tax rate | 35% |
| Dividend payout rate | 28% |

Based on this information, what is the firm's sustainable growth rate?

(A) 7.35%.

(B) 10.63%.

(C) 8.82%.

24. Regarding the use of financial ratios in the analysis of a firm's financial statements, it is most accurate to say that:

(A) many financial ratios are useful in isolation.

(B) variations in accounting treatments have little effect on financial ratios.

(C) a range of target values for a ratio may be more appropriate than a single target value.

25. An analyst has gathered the following data about a company:

- Days' sales outstanding of 37 days.
- Days' payables of 30 days.
- Days of inventory on hand of 46 days.

What is their cash conversion cycle?

(A) 45 days.

(B) 113 days.

(C) 53 days.

26. To calculate the cash ratio, the total of cash and marketable securities is divided by:

(A) total assets.

(B) current liabilities.

(C) total liabilities.

27. Which of the following ratios is NOT part of the original DuPont system?

(A) Asset turnover.

(B) Debt to total capital.

(C) Equity multiplier.

28. Given the following income statement and balance sheet for a company:

| Balance Sheet | | |
|---|---|---|
| **Assets** | **Year 2003** | **Year 2004** |
| Cash | 500 | 450 |
| Accounts Receivable | 600 | 660 |
| Inventory | 500 | 550 |
| Total CA | 1300 | 1660 |
| Plant, prop. equip | 1000 | 1250 |
| Total Assets | 2600 | 2,910 |
| Liabilities | | |
| Accounts Payable | 500 | 550 |
| Long term debt | 700 | 1102 |
| Total liabilities | 1200 | 1652 |
| Equity | | |
| Common Stock | 400 | 538 |
| Retained Earnings | 1000 | 720 |
| Total Liabilities & Equity | 2600 | 2,910 |

| Income Statement | |
|---|---|
| Sales | 3000 |
| Cost of Goods Sold | (1000) |
| Gross Profit | 2000 |
| SG&A | 500 |
| Interest Expense | 151 |
| EBT | 1349 |
| Taxes (30%) | 405 |
| Net Income | 944 |

What is the average receivables collection period?

(A) 60.6 days.

(B) 76.7 days.

(C) 80.3 days.

29. An analyst has gathered the following information about a company:

| Balance Sheet | |
|---|---|
| **Assets** | |
| Cash | 100 |
| Accounts Receivable | 750 |
| Marketable Securities | 300 |
| Inventory | 850 |
| Property, Plant & Equip | 900 |
| Accumulated Depreciation | (150) |
| Total Assets | 2750 |
| **Liabilities and Equity** | |
| Accounts Payable | 300 |
| Short-Term Debt | 130 |
| Long-Term Debt | 700 |
| Common Stock | 1000 |
| Retained Earnings | 620 |
| Total Liab. and Stockholder's equity | 2750 |

| Income Statement | |
|---|---|
| Sales | 1500 |
| COGS | 1100 |
| Gross Profit | 400 |
| SG&A | 150 |
| Operating Profit | 250 |
| Interest Expense | 25 |
| Taxes | 75 |
| Net Income | 150 |

What is the receivables collection period?

(A) 365.

(B) 183.

(C) 243.

30. Lightfoot Shoe Company reported sales of $100 million for the year ended 20X7. Lightfoot expects sales to increase 10% in 20X8. Cost of goods sold is expected to remain constant at 40% of sales and Lightfoot would like to have an average of 73 days of inventory on hand in 20X8. Forecast Lightfoot's average inventory for 20X8 assuming a 365 day year.

(A) $22.0 million.

(B) $8.0 million.

(C) $8.8 million.

31. Income Statements for Royal, Inc. for the years ended December 31, 20X0 and December 31, 20X1 were as follows (in $ millions):

| | 20X0 | 20X1 |
|---|---|---|
| Sales | 78 | 82 |
| Cost of Goods Sold | (47). | (48). |
| Gross Profit | 31 | 34 |
| Sales and Administration | (13). | (14) |
| Operating Profit (EBIT) | 18 | 20 |
| Interest Expense | (6) | (10) |
| Earnings Before Taxes | 12 | 10 |
| Income Taxes | (5) | (4) |
| Earnings after Taxes | 7 | 6 |

Analysis of these statements for trends in operating profitability reveals that, with respect to Royal's gross profit margin and net profit margin:

(A) both gross profit margin and net profit margin increased in 20X1.

(B) gross profit margin increased in 20X1 but net profit margin decreased.

(C) gross profit margin decreased but net profit margin increased in 20X1.

32. **Statement #1 -** As compared to the price-to-earnings ratio, the price-to-cash flow ratio is easier to manipulate because management can easily control the timing of the cash flows.

**Statement #2 -** A firm with earnings per share of $2 is more profitable than a firm with earnings per share of $1.

With respect to these statements:

(A) both are correct.

(B) both are incorrect.

(C) only one is correct.

33. Wells Incorporated reported the following common size data for the year ended December 31, 20X7:

| Income Statement | % |
|---|---|
| Sales | 100.0 |
| Cost of goods sold | 58.2 |
| Operating expenses | 30.2 |
| Interest expense | 0.7 |
| Income tax | 5.7 |
| Net income | 5.2 |

| Balance sheet | % | | % |
|---|---|---|---|
| Cash | 4.8 | Accounts payable | 15.0 |
| Accounts receivable | 14.9 | Accrued liabilities | 13.8 |
| Inventory | 49.4 | Long-term debt | 23.2 |
| Net fixed assets | 30.9 | Common equity | 48.0 |
| Total assets | **100.00** | Total liabilities & equity | **100.0** |

For 20X6, Wells reported sales of $183,100,000 and for 20X7, sales of $215,600,000. At the end of 20X6, Wells' total assets were $75,900,000 and common equity was $37,800,000. At the end of 20X7, total assets were $95,300,000. Calculate Wells' current ratio and return on equity ratio for 20X7.

| Current ratio | Return on equity |
|---|---|
| (A) 2.4 | 24.5% |
| (B) 2.4 | 26.8% |
| (C) 4.6 | 25.2% |

34. In preparing a forecast of future financial performance, which of the following *best* describes sensitivity analysis and scenario analysis, respectively?

**Description #1 -** A computer generated analysis based on developing probability distributions of key variables that are used to drive the potential outcomes.

**Description #2 -** The process of analyzing the impact of future events by considering multiple key variables.

**Description #3 -** A technique whereby key financial variables are changed one at a time and a range of possible outcomes are observed. Also known as "what-if" analysis.

Sensitivity analysis Scenario analysis

(A) Description #2 Description #3

(B) Description #3 Description #2

(C) Description #3 Description #1

35. What would be the impact on a firm's return on assets ratio (ROA) of the following independent transactions, assuming ROA is less than one?

**Transaction #1 -** A firm owned investment securities that were classified as available-for-sale and there was a recent decrease in the fair value of these securities.

**Transaction #2 -** A firm owned investment securities that were classified as trading securities and there was recent increase in the fair value of the securities.

| Transaction #1 | Transaction #2 |
|---|---|
| (A) Higher | Higher |
| (B) Higher | Lower |
| (C) Lower | Higher |

36. From the extended (5-part) DuPont equation, which of the following components describes the equation EBT / EBIT?
    (A) Tax burden.
    (B) Interest burden.
    (C) Financial leverage.

37. Goldstar Manufacturing has an accounts receivable turnover of 10.5 times, an inventory turnover of 4 times, and payables turnover of 8 times. What is Goldstar's cash conversion cycle?
    (A) 171.64 days.
    (B) 6.50 days.
    (C) 80.38 days.

38. With other variables remaining constant, if a firm's asset turnover increases, its return on equity:
    (A) will increase.
    (B) will decrease.
    (C) may increase, decrease, or remain the same.

39. An analyst has gathered the following information about a company:

| Balance Sheet | |
|---|---|
| Assets | |
| Cash | 100 |
| Accounts Receivable | 750 |
| Marketable Securities | 300 |
| Inventory | 850 |
| Property, Plant & Equip | 900 |
| Accumulated Depreciation | (150) |
| Total Assets | 2750 |
| Liabilities and Equity | |
| Accounts Payable | 300 |
| Short-Term Debt | 130 |
| Long-Term Debt | 700 |
| Common Stock | 1000 |
| Retained Earnings | 620 |
| Total Liab. and Stockholder's equity | 2750 |

| Income Statement | |
|---|---|
| Sales | 1500 |
| COGS | 1100 |
| Gross Profit | 400 |
| SG&A | 150 |
| Operating Profit | 250 |
| Interest Expense | 25 |
| Taxes | 75 |
| Net Income | 150 |

Determine the current ratio and the cash ratio.

| | Current Ratio | Cash Ratio |
|---|---|---|
| (A) | 2.67 | 1.07 |
| (B) | 4.65 | 0.93 |
| (C) | 1.98 | 1.86 |

40. How would the collection of accounts receivable *most likely affect* the current and cash ratios?

| | Current ratio | Cash ratio |
|---|---|---|
| (A) | Increase | Increase |
| (B) | No effect | Increase |
| (C) | No effect | No effect |

41. The latest balance sheet for XYZ, Inc. appears below

| | 12/31 /20X4 | 12/31 /20X3 |
|---|---|---|
| Assets | | |
| Cash | 2,098 | 410 |
| Accounts receivable | 4,570 | 4,900 |
| Inventory | 4,752 | 4,500 |
| Prepaid SGA | 877 | 908 |
| Total current assets | 12,297 | 10,718 |
| Land | 0 | 4,000 |
| Property, Plant & Equipment | 11,000 | 11,000 |
| Accumulated Depreciation | (5,862) | (5,200) |
| Total Assets | 17,435 | 20,518 |

| Liabilities and Equity | | |
|---|---|---|
| Accounts Payable | 4,651 | 5,140 |
| Wages Payable | 2,984 | 2,890 |
| Dividends Payable | 100 | 100 |
| Total current liabilities | 7,735 | 8,130 |
| Long term Debt | 1,346 | 7,388 |
| Common Stock | 4,000 | 4,000 |
| Retained Earnings | 4,354 | 1,000 |
| Total Liabilities and Equity | 17,435 | 20,518 |

At the end of 20X4, what were XYZ's current and quick ratios?

| | Current ratio | Quick ratio |
|---|---|---|
| (A) | 1.48 | 0.86 |
| (B) | 1.59 | 0.86 |
| (C) | 1.59 | 1.59 |

42. If a company has a net profit margin of 5%, an asset turnover ratio of 2.5 and a ROE of 18%, what is the equity multiplier?
(A) 0.69.
(B) 1.44.
(C) 2.25.

43. Would an increase in net profit margin or in the firm's dividend payout ratio increase a firm's sustainable growth rate?

| | Net profit margin | Dividend payout ratio |
|---|---|---|
| (A) | No | No |
| (B) | Yes | No |
| (C) | Yes | Yes |

44. Earnings before interest and taxes (EBIT) is also known as:
(A) earnings before income taxes.
(B) gross profit.
(C) operating profit.

45. The following data apply to the XTC Company:

- Sales = $1,000,000.
- Receivables = $260,000.
- Payables = $600,000.
- Purchases = $800,000.
- COGS = $800,000.
- Inventory = $400,000.
- Net Income = $50,000.
- Total Assets = $800,000.
- Debt/Equity = 200%.

Which of the following statements about the company's activity ratios is *most* accurate? The company has:

(A) 45 days of inventory on hand.

(B) 132 days of payables.

(C) 95 days of sales outstanding.

46. How are the quick ratio and the debt-to-capital ratio typically used when assessing a company's ability to meet its debt obligations?

(A) Both are used primarily to assess its ability to meet long-term obligations.

(B) One is used primarily to assess its ability to meet short-term obligations, and the other is used primarily to assess its ability to meet long-term obligations.

(C) Both are used primarily to assess its ability to meet short-term obligations.

47. As of December 31, 2007, Manhattan Corporation had a quick ratio of 2.0, current assets of $15 million, trade payables of $2.5 million, and receivables of $3 million, and inventory of $6 million. How much were Manhattan's current liabilities?

(A) $12.0 million.

(B) $4.5 million.

(C) $7.5 million.

48. Comparing a company's ratios with those of its competitors is *best* described as:

(A) longitudinal analysis.

(B) cross-sectional analysis.

(C) common-size analysis.

49. A firm's financial statements reflect the following:

| | |
|---|---|
| Net profit margin | 15% |
| Sales | $10,000,000 |
| Interest payments | $1,200,000 |
| Avg. assets | $15,000,000 |
| Equity | $11,000,000 |
| Avg. working capital | $800,000 |
| Dividend payout rate | 35% |

Which of the following is the *closest* estimate of the firm's sustainable growth rate?

(A) 10%.

(B) 8%.

(C) 9%.

50. Given the following information about a firm:

- Revenues = $1,000.
- Cost of Goods Sold = $600.
- Operating Expenses = $200.
- Interest Expenses = $50.
- Tax Rate = 34%.

The operating profit margin is closest to:

(A) 40%.

(B) 20%.

(C) 10%.

51. What type of ratio is revenue divided by average working capital and what type of ratio is average total assets divided by average total equity?

| Revenue / Average working capital | Average total assets / Average total equity |
|---|---|
| (A) Activity ratio | Solvency ratio |
| (B) Activity ratio | Liquidity ratio |
| (C) Profitability ratio | Solvency ratio |

52. Which ratio is used to measure a company's internal liquidity?

(A) Current ratio.

(B) Interest coverage.

(C) Total asset turnover.

53. A company has a receivables turnover of 10, an inventory turnover of 5, and a payables turnover of 12. The company's cash conversion cycle is closest to:

(A) 79 days.

(B) 37 days.

(C) 30 days.

54. Which of the following ratios is a component of the original (three-part) DuPont equation?

(A) Asset turnover.

(B) Gross profit margin.

(C) Debt-to-equity ratio.

55. Given the following income statement and balance sheet for a company:

| Balance Sheet | | |
|---|---|---|
| Assets | Year 2003 | Year 2004 |
| Cash | 500 | 450 |
| Accounts Receivable | 600 | 660 |
| Inventory | 500 | 550 |
| Total CA | 1300 | 1660 |
| Plant, prop. equip | 1000 | 1250 |
| Total Assets | 2600 | 2910 |
| Liabilities | | |
| Accounts Payable | 500 | 550 |
| Long term debt | 700 | 700 |
| Total liabilities | 1200 | 1652 |
| Equity | | |
| Common Stock | 400 | 400 |
| Retained Earnings | 1260 | 1260 |
| Total Liabilities & Equity | 2600 | 2910 |

| Income Statement | |
|---|---|
| Sales | 3000 |
| Cost of Goods Sold | (1000) |
| Gross Profit | 2000 |
| SG&A | 500 |
| Interest Expense | 151 |
| EBT | 1349 |
| Taxes (30%) | 405 |
| Net Income | 944 |

What is the operating profit margin?

(A) 0.50.

(B) 0.67.

(C) 0.45.

56. What is a company's equity if their return on equity (ROE) is 12%, and their net income is $10 million?

(A) $120,000,000.

(B) $1,200,000.

(C) $83,333,333.

57. During 2007, Brownfield Incorporated purchased $140 million of inventory. For the year just ended, Brownfield reported cost of goods sold of $130 million. Inventory at year-end was $45 million. Calculate inventory turnover for the year.

(A) 3.25.

(B) 2.89.

(C) 3.71.

58. When the return on equity equation (ROE) is decomposed using the original DuPont system, what three ratios comprise the components of ROE?

(A) Net profit margin, asset turnover, asset multiplier.

(B) Gross profit margin, asset turnover, equity multiplier.

(C) Net profit margin, asset turnover, equity multiplier.

59. A firm's financial statements reflect the following:

| | |
|---|---|
| Current liabilities | $4,000,000 |
| Cash | $400,000 |
| Inventory | $1,200,000 |
| Accounts receivable | $800,000 |
| Short-term investments | $2,000,000 |
| Long-term investments | $800,000 |
| Accounts payable | $2,500,000 |

What are the firm's current ratio, quick ratio, and cash ratio?

| Current Ratio | Quick Ratio | Cash Ratio |
|---|---|---|
| (A) 0.8 | 0.6 | 1.1 |
| (B) 1.1 | 0.8 | 0.6 |
| (C) 1.1 | 0.6 | 0.8 |

60. Books Forever, Inc., uses short-term bank debt to buy inventory. Assuming an initial current ratio that is greater than 1, and an initial quick (or acid test) ratio that is less than 1, what is the effect of these transactions on the current ratio and the quick ratio?

(A) Both ratios will decrease.

(B) Neither ratio will decrease.

(C) Only one ratio will decrease.

61. A company must report separate financial information for any segment of their business which: accounts for more than 10% of the firm's assets and has risk and return

(A) characteristics distinguishable from the company's other lines of business.

(B) is located in a country other than the firm's home country.

(C) is more than 20% of a firm's revenues.

62. An analyst has gathered the following information about a company:

| Balance Sheet | |
|---|---|
| *Assets* | |
| Cash | 100 |
| Accounts Receivable | 750 |
| Marketable Securities | 300 |
| Inventory | 850 |
| Property, Plant & Equip | 900 |
| Accumulated Depreciation | (150) |
| Total Assets | 2750 |
| *Liabilities and Equity* | |
| Accounts Payable | 300 |
| Short-Term Debt | 130 |
| Long-Term Debt | 700 |
| Common Stock | 1000 |
| Retained Earnings | 620 |
| Total Liab. and Stockholder's equity | 2750 |

| Income Statement | |
|---|---|
| Sales | 1500 |
| COGS | 1100 |
| Gross Profit | 400 |
| SG&A | 150 |
| Operating Profit | 250 |
| Interest Expense | 25 |
| Taxes | 75 |
| Net Income | 150 |

What is the current ratio?

(A) 4.65.

(B) 2.67.

(C) 0.22.

63. A firm has a cash conversion cycle of 80 days. The firm's payables turnover goes from 11 to 12, what happens to the firm's cash conversion cycle? It:
   (A) lengthens.
   (B) shortens.
   (C) may shorten or lengthen.

64. Which of the following reasons is *least likely a* valid limitation of ratio analysis?
   (A) It is difficult to find comparable industry
   (B) Calculation of ratios involves a large degree of subjectivity.
   (C) Determining the target or comparison value for a ratio is difficult.

65. Adams Co.'s common sized balance sheet shows that:
   - Current Liabilities = 20%
   - Equity = 45%
   - Current Assets = 45%
   - Total Assets = $2,000

   What are Adams' long-term debt to equity ratio and working capital?

| Debt to Equity | Working Capital |
|---|---|
| (A) 0.78 | $250 |
| (B) 0.78 | $500 |
| (C) 1.22 | $500 |

66. In the year 20X4, a company had a net profit margin of 18%, total asset turnover of 1.75, and a financial leverage multiplier of 1.5. If the company's net profit margin declines to 10% in 20X5, what total asset turnover would be needed in order to maintain the same return on equity as in 20X4, assuming there is no change in the financial leverage multiplier?
   (A) 2.50.
   (B) 3.15.
   (C) 1.85.

67. Given the following income statement and balance sheet for a company:

| Balance Sheet | | |
|---|---|---|
| **Assets** | **Year 2006** | **Year 2007** |
| Cash | 200 | 450 |
| Accounts Receivable | 600 | 660 |
| Inventory | 500 | 550 |
| Total CA | 1300 | 1660 |
| Plant, prop. equip | 1000 | 1580 |

| | | |
|---|---|---|
| Total Assets | 2600 | 3240 |
| **Liabilities** | | |
| Accounts Payable | 500 | 550 |
| Long term debt | 700 | 1052 |
| Total liabilities | 1200 | 1602 |
| Equity | | |
| Common Stock | 400 | 538 |
| Retained Earnings | 1000 | 1100 |
| Total Liabilities & Equity | 2600 | 3240 |

| Income Statement | |
|---|---|
| Sales | 3000 |
| Cost of Goods Sold | (1000) |
| Gross Profit | 2000 |
| SG&A | 500 |
| Interest Expense | 151 |
| EBT | 1349 |
| Taxes (30%) | 405 |
| Net Income | 944 |

Which of the following is *closest to* the company's return on equity (ROE)?

(A) 1.83

(B) 0.62

(C) 0.29

68. Which of the following statements *best* describes vertical common-size analysis and horizontal common-size analysis?

**Statement #1 -** Each line item is expressed as a percentage of its base-year amount.

**Statement #2 -** Each line item of the income statement is expressed as a percentage of revenue and each line item of the balance sheet is expressed as a percentage of ending total assets.

**Statement #3 -** Each line item is expressed as a percentage of the prior year's amount.

| Vertical analysis | Horizontal analysis |
|---|---|
| (A) Statement #2 | Statement #1 |
| (B) Statement #1 | Statement #2 |
| (C) Statement #2 | Statement #3 |

69. Which of the following statements about financial ratios is most accurate?

(A) Any firm with a high net profit margin will have a high gross profit margin and vice versa.

(B) A company that has an inventory turnover of 6 times, a receivables turnover of 9 times, and a payables turnover of 12 times will have a cash conversion cycle of approximately 71 days.

(C) A company with a high debt-to-equity ratio will have a return on assets that is greater than its return on equity.

70. An analyst using vertical common-size analysis is *most likely to* express each item on an income statement as a percentage of:

(A) sales.

(B) operating income.

(C) its value in a base period.

71. Given the following income statement and balance sheet for a company:

| Balance Sheet | | |
|---|---|---|
| **Assets** | **Year 2003** | **Year 2004** |
| Cash | 500 | 450 |
| Accounts Receivable | 600 | 660 |
| Inventory | 500 | 550 |
| Total CA | 1600 | 1660 |
| Plant, prop. equip | 1000 | 1250 |
| Total Assets | 2600 | 2910 |
| **Liabilities** | | |
| Accounts Payable | 500 | 550 |
| Long term debt | 700 | 1102 |
| Total liabilities | 1200 | 1652 |
| **Equity** | | |
| Common Stock | 400 | 538 |
| Retained Earnings | 1000 | 720 |
| Total Liabilities & Equity | 2600 | 2910 |

| Income Statement | |
|---|---|
| Sales | 3000 |
| Cost of Goods Sold | (1000) |
| Gross Profit | 2000 |
| SG&A | 500 |
| Interest Expense | 151 |
| EBT | 1349 |
| Taxes (30%) | 405 |
| Net Income | 944 |

What is the quick ratio for 2004?

(A) 3.018.

(B) 0.331.

(C) 2.018.

72. A company has a cash conversion cycle of 80 days. If the company's average receivables turnover increases from 11 to 12, the company's cash conversion cycle:

(A) Increases by approximately 3 days.

(B) Decreases by approximately 3 days.

(C) Decreases by approximately 1 day.

73. Which of the following ratios would NOT be used to evaluate how efficiently management is utilizing the firm's assets?

(A) Payables turnover.

(B) Gross profit margin.

(C) Fixed asset turnover.

74. The cash conversion cycle is the:

(A) length of time it takes to sell inventory.

(B) Sum of the time it takes to sell inventory and collect on accounts receivable, less the time it takes to pay for credit purchases.

(C) Sum of the time it takes to sell inventory and the time it takes to collect accounts receivable.

75. An analyst has gathered the following information about a company:

| Balance Sheet | |
|---|---|
| Assets | |
| Cash | 100 |
| Accounts Receivable | 750 |
| Marketable Securities | 300 |
| Inventory | 850 |
| Property, Plant & Equip | 900 |
| Accumulated Depreciation | (150) |
| Total Assets | 2750 |
| Liabilities and Equity | |
| Accounts Payable | 300 |
| Short-Term Debt | 130 |
| Long-Term Debt | 700 |
| Common Stock | 1000 |
| Retained Earnings | 620 |
| Total Liab. and Stockholder's equity | 2750 |

| Income Statement | |
|---|---|
| Sales | 1500 |
| COGS | 1100 |
| Gross Profit | 400 |
| SG&A | 150 |
| Operating Profit | 250 |
| Interest Expense | 25 |
| Taxes | 75 |
| Net Income | 150 |
| Interest Expense | 25 |
| Taxes | 75 |
| Net Income | 150 |

What is the inventory turnover ratio?

(A) 0.77.

(B) 1.29.

(C) 1.59.

76. If the quick ratio is equal to 2.0, a decrease in inventory and an equal decrease in accounts payable will:

(A) Leave the quick ratio unchanged.

(B) Increase the quick ratio.

(C) Decrease the quick ratio.

77. Benton Company's common-size financial statements show the following information:

- Current liabilities 20%
- Equity 45%

Benton's long-term debt-to-equity ratio is closest to:

(A) 98%

(B) 88%

(C) 78%

78. An analyst has gathered the following information about a firm:

- Quick ratio of 0.25.
- Cash ratio of 0.20.
- $2 million in marketable securities.
- $10 million in cash.

What is their receivables balance?

(A) 3 million.

(B) 2 million.

(C) 5 million.

79. Are the following statements about common-size financial statements correct or incorrect?

**Statement #1 -** Expressing financial information in a common-size format enables the analyst to make better comparisons between two firms of similar size that operate in different industries.

**Statement #2 -** Common-size financial statements can be used to highlight the structural changes in the firm's operating results and financial condition that have occurred over time.

With respect to these statements:

(A) both are correct.

(B) both are incorrect.

(C) only one is correct:

80. Which of the following is least likely a routinely used operating profitability ratio?

(A) Net income/net sales.

(B) Gross profit/net sales.

(C) Sales/Total Assets.

81. Johnson Corp. had the following financial results for the fiscal 2004 year:

| | |
|---|---|
| Current Ratio | 2.00 |
| Quick Ratio | 1.25 |
| Current Liabilities | $100,000 |
| Inventory turnover | 12 |
| Gross Profit% | 25 |

The only current assets are cash, accounts receivable, and inventory. The balance in these accounts has remained constant throughout the year. Johnson's net sales for 2004 were:

(A) $1,200,000.

(B) $900,000.

(C) $300,000.

82. A company has 1,000,000 warrants outstanding at the beginning of the year, each convertible into one share of stock with an exercise price of $50. No new warrants were issued during the year. The average stock price during the period was $60, and the year-end stock price was $45. What adjustment for these warrants should be made, under the treasury stock method, to the number of shares used to calculate diluted earnings per share (EPS)?

(A) 200,000.

(B) 166,667.

(C) 0.

83. Selected financial information gathered from the Matador Corporation follows:

| | 2007 | 2006 | 2005 |
|---|---|---|---|
| Average debt | $792,000 | $800,000 | $820,000 |
| Average equity | $215,000 | $294,000 | $364,000 |
| Return on assets | 5.9% | 6.6% | 7.2% |
| Quick ratio | 0.3 | 0.5 | 0.6 |
| Sales | $1,650,000 | $1,452,000 | $1,304,000 |
| Cost of goods sold | $1,345,000 | $1,176,000 | $1,043,000 |

Using only the data presented, which of the following statements is most correct?

(A) Gross profit margin has improved.

(B) Leverage has declined.

(C) Return on equity has improved. Explanation

84. Ratio analysis is most useful for comparing companies:

(A) In different industries that use the same accounting standards.

(B) of different size in the same industry.

(C) That operates in multiple lines of business.

85. The following data pertains to a company's common-size financial statements.

| | |
|---|---|
| • Current assets | 40% |
| • Total debt | 40% |
| • Net income | 16% |
| • Total assets | $2,000 |
| • Sales | $1,500 |
| • Total asset turnover ratio | 0.75 |
| • The firm has no preferred stock in its capital structure. | |

The company's after-tax return on common equity is closest to:

(A) 15%.

(B) 25%.

(C) 20%.

86. Given the following income statement and balance sheet for a company:

| Balance Sheet | | |
|---|---|---|
| **Assets** | **Year 2003** | **Year 2004** |
| Cash | 500 | 450 |
| Accounts Receivable | 600 | 660 |
| Inventory | 500 | 550 |
| Total CA | 1300 | 1660 |
| Plant, prop. equip | 1000 | 1250 |
| Total Assets | 2600 | 2910 |
| Liabilities | | |
| Accounts Payable | 500 | 550 |
| Long term debt | 700 | 1102 |
| Total liabilities | 1200 | 1652 |
| Equity | | |
| Common Stock | 400 | 538 |
| Retained Earnings | 1000 | 720 |
| Total Liabilities & Equity | 2600 | 2,910 |

| Income Statement | |
|---|---|
| Sales | 3000 |
| Cost of Goods Sold | (1000) |
| Gross Profit | 2000 |
| SG&A | 500 |
| Interest Expense | 151 |
| EBT | 1349 |
| Taxes (30%) | 405 |
| Net Income | 944 |

What is the gross profit margin?
(A) 0.333
(B) 0.472.
(C) 0.666.

87. An analyst has gathered the following information about a firm:
- Net sales of $500,000.
- Cost of goods sold = $250,000.
- EB1T of $150,000.
- EAT of $90,000.

What is this firm's operating profit margin?
(A) 9.6%
(B) 18%.
(C) 30%.

88. Given the following income statement:

| | |
|---|---|
| Net Sales | 200 |
| Cost of Goods Sold | 55 |
| Gross Profit | 145 |
| Operating Expenses | 30 |
| Operating Profit (EBIT) | 115 |
| Interest | 15 |
| Earnings Before Taxes (EBT) | 100 |
| Taxes | 40 |
| Earnings After Taxes (EAT) | 60 |

What are the interest coverage ratio and the net profit margin?

| | Interest Coverage Ratio | Net Profit Margin |
|---|---|---|
| (A) | 2.63 | 0.30 |
| (B) | 0.57 | 0.56 |
| (C) | 7.67 | 0.30 |

89. McQueen Corporation prepared the following common-size income statement for the year ended December 31, 20X7:

| | |
|---|---|
| Sales | 100% |
| Cost of goods sold | 60% |
| Gross profit | 40% |

For 20X7, McQueen sold 250 million units at a sales price of $1 each. For 20X8, McQueen has decided to reduce its sales price by 10%. McQueen believes the price cut will double unit sales. The cost of each unit sold is expected to remain the same. Calculate the change in McQueen's expected gross profit for 20X8 assuming the price cut doubles sales.

(A) $150 million increase.
(B) $50 million increase.
(C) $80 million increase.

90. Kellen Harris is a credit analyst with the First National Bank. Harris has been asked to evaluate Longhorn Supply Company's cash needs. Harris began by calculating Longhorn's turnover ratios for 2007. After a discussion with Longhorn's management, Harris decides to adjust the turnover ratios for 2008 as follows:

| | 2007 Actual Turnover | Expected Increase /(Decrease) |
|---|---|---|
| Accounts receivable | 5.0 | 10% |
| Fixed asset | 3.0 | 7% |
| Accounts payable | 6.0 | (20%) |
| Inventory | 4.0 | (5%) |
| Equity | 5.5 | – |
| Total asset | 2.3 | 8% |

Longhorn's expected cash conversion cycle for 2008, based on the expected changes in turnover and assuming a 365 day year, is closest to:
(A) 46 days.
(B) 82 days.
(C) 86 days.

91. Use the following data from Delta's common size financial statement to answer the question:

| | |
|---|---|
| Earnings after taxes | =18% |
| Equity | =40% |
| Current assets | =60% |
| Current liabilities | =30% |
| Sales | =$300 |
| Total assets | =$1,400 |

What is Delta's after-tax return on equity?
(A) 9.6%.
(B) 18.0%.
(C) 5.0%.