

CHAPTER 14

Financial Analysis: The Big Picture

Learning Objectives

1. Apply the concepts of sustainable income and quality of earnings.
2. Apply horizontal analysis and vertical analysis.
3. Analyze a company's performance using ratio analysis.

ANSWERS TO QUESTIONS

1. Sustainable income is defined as the most likely level of income to be obtained in the future. It is the amount of regular income that a company can expect to earn from its normal operations. In order to distinguish a company's net income from its sustainable income, unusual revenues, expenses, gains, and losses are separated from operating transactions. In addition, information on unusual items such as gains and losses on discontinued items and components of other comprehensive income are disclosed.

LO 1 BT: C Difficulty: Medium TOT: 3 min. AACSB: None AICPA FC: Reporting IMA: FSA

2. This would not be considered a favorable trend for Hogan Inc. The relevant earnings per share figures are the \$3.26 in 2021 and the \$2.99 in 2022. These figures indicate that, unless there was a sale of common stock, the earnings from the continuing operations of the company decreased during 2022. This should give the company's management some concern because they will not always be able to count on income or gains from discontinued operations.

LO 1 BT: AN Difficulty: Medium TOT: 4 min. AACSB: Analytic AICPA FC: Reporting IMA: FSA

3. Companies report a change from the FIFO method to the average cost method for inventory costing, retroactively. That is, they report both the current period and any previous periods reported on the face of the statement using the new principle. As a result, the same principle applies to all periods reported. This treatment improves the ability to compare results across years.

LO 1 BT: C Difficulty: Easy TOT: 3 AACSB: None AICPA FC: Reporting IMA: FSA

4. Apple reported "Total other comprehensive income" of \$3,827 million for year ended September 28, 2019. "Comprehensive income" was more than "Net income" by 5.0% [$(\$58,037 - \$55,256) \div \$55,256$]

LO 1 BT: AN Difficulty: Medium TOT: 4 min. AACSB: Analytic AICPA FC: Reporting IMA: FSA

5.
 - (1) Use of alternative accounting methods. Variations among companies in the application of generally accepted accounting principles may hamper comparability.
 - (2) Use of pro forma income measures that do not follow GAAP. Pro forma income is calculated by excluding items that the company believes are unusual or nonrecurring. It is often difficult to determine what was included and excluded.
 - (3) Improper revenue and expense recognition. Many high-profile cases of inappropriate accounting involve recording items in the wrong period.

LO 1 BT: K Difficulty: Medium TOT: 3 min. AACSB: None AICPA FC: Reporting IMA: FSA

Questions Chapter 14 (Continued)

6. (a) During a period of inflation, net income will be less under the LIFO inventory costing method than it will be using the FIFO method because LIFO results in the larger cost of goods sold amount.
- (b) Inflation does not affect the amount of depreciation taken (except through its effect on salvage) since the depreciable amount is based on the acquisition cost. A six-year life produces greater depreciation for the first six years (thus, less net income) and less depreciation in years 7, 8, 9 (thus, more net income in those years) than a nine-year life.
- (c) Inflation does not affect the amount of depreciation taken. Use of the straight-line method results in less depreciation in the earlier years (thus, more net income) than the declining-balance method but more depreciation in the later years.

LO 1 BT: AN Difficulty: Hard TOT: 5 min. AACSB: Analytic AICPA FC: Reporting IMA: FSA

7. **Horizontal analysis**, (also called trend analysis), measures the dollar and percentage increase or decrease of an item over a period of time. In this approach, the amount of the item on one statement is compared with the amount of that same item on one or more earlier statements.
- Vertical analysis**, (also called common-size analysis), expresses each item within a financial statement as a percent of a relevant base amount, such as total assets.

LO 2 BT: C Difficulty: Medium TOT: 3 min. AACSB: None AICPA FC: Reporting IMA: FSA

8. (a) $\$300,000 \times 1.245 = \$373,500$, 2022 net income.
- (b) $\$300,000 \div .06 = \$5,000,000$, 2021 revenue.

LO 2 BT: AP Difficulty: Medium TOT: 3 min. AACSB: Analytic AICPA FC: Reporting IMA: FSA

9. (a) Gina is not correct. There are three characteristics: liquidity, profitability, and solvency.
- (b) The three parties are not primarily interested in the same characteristics of a company. Short-term creditors are primarily interested in the liquidity of the enterprise. In contrast, long-term creditors and stockholders are primarily interested in the profitability and solvency of the company.

LO 3 BT: C Difficulty: Medium TOT: 4 min. AACSB: None AICPA FC: Reporting IMA: FSA

10. (a) Comparison of financial information can be made on an intracompany basis, an inter-company basis, and an industry average basis.
1. An **intracompany basis** compares the same item with prior periods, or with other financial items in the same period within a company.
 2. An **intercompany basis** compares the same item with other companies' published reports.
 3. The **industry average** compares the item with the industry average as compiled by Dun & Bradstreet or by trade associations.
- (b) The **intracompany basis** of comparison is useful in detecting changes in financial relationships and significant trends within a company.
- The **intercompany basis** of comparison provides insight into a company's competitive position. The **industry average basis** provides information about a company's relative position within the industry.

LO 2 BT: C Difficulty: Medium TOT: 5 min. AACSB: None AICPA FC: Reporting IMA: FSA

Questions Chapter 14 (Continued)

11. (a) **Liquidity ratios:** current ratio, inventory turnover, days in inventory, accounts receivable turnover, and average collection period.
(b) **Solvency ratios:** Debt to assets ratio, times interest earned, and free cash flow.

LO 3 BT: K Difficulty: Easy TOT: 3 min. AACSB: None AICPA FC: Reporting IMA: FSA

12. Tina is correct. A single ratio by itself may not be very meaningful and is best interpreted by comparison with (1) past ratios of the same company, (2) ratios of other companies, or (3) industry norms or predetermined standards. In addition, other ratios of the company are necessary to determine overall financial well-being.

LO 3 BT: C Difficulty: Medium TOT: 3 min. AACSB: None AICPA FC: Reporting IMA: FSA

13. (a) **Liquidity ratios** measure the short-term ability of the company to pay its maturing obligations and to meet unexpected needs for cash.
(b) **Solvency ratios** measure the company's ability to survive over a long period of time.
(c) **Profitability ratios** measure the income or operating success of a company for a given period of time.

LO 3 BT: K Difficulty: Easy TOT: 3 min. AACSB: None AICPA FC: Reporting IMA: FSA

14. Working capital and the current ratio both relate current assets to current liabilities. Working capital produces a dollar amount that indicates the difference between current assets and current liabilities. The current ratio produces a ratio that indicates the proportional relationship between current assets and current liabilities.

LO 3 BT: C Difficulty: Easy TOT: 3 min. AACSB: None AICPA FC: Reporting IMA: FSA

15. Handi Mart does not necessarily have a problem. The accounts receivable turnover can be misleading in that some companies encourage credit and revolving charge sales and slow collections in order to earn a healthy return on the outstanding receivables in the form of high rates of interest.

LO 3 BT: C Difficulty: Medium TOT: 3 min. AACSB: None AICPA FC: Reporting IMA: FSA

16. (a) Asset turnover
(b) Inventory turnover and days in inventory
(c) Return on common stockholders' equity
(d) Times interest earned

LO 3 BT: C Difficulty: Easy TOT: 2 min. AACSB: None AICPA FC: Reporting IMA: FSA

17. The price earnings (P-E) ratio is a reflection of investors' assessments of a company's potential future earnings. The P-E ratio takes into account such factors as relative risk, stability of earnings, trends in earnings, and the market's perception of the company's growth potential. In this question, investors favor Microsoft because it has the higher P-E ratio. The investors feel that Microsoft will be able to generate even higher future earnings and thus investors are willing to pay more for the stock.

LO 3 BT: C Difficulty: Medium TOT: 3 min. AACSB: None AICPA FC: Reporting IMA: FSA

Questions Chapter 14 (Continued)

18. The payout ratio is cash dividends paid on common stock divided by net income. In a growth company, the payout ratio is often low because the company is reinvesting earnings in the business instead of distributing earnings to its investors.

LO 3 BT: C Difficulty: Easy TOT: 2 min. AACSB: None AICPA FC: Reporting IMA: FSA

19. (a) An increase in the profit margin is good news because it means that a greater percentage of net sales is resulting in income.
- (b) A decrease in inventory turnover signals bad news because it is taking the company longer to sell the inventory and consequently there is a greater chance of inventory obsolescence.
- (c) An increase in the current ratio signals good news because the company improved its ability to meet maturing short-term obligations.
- (d) Earnings per share is a deceptive ratio. A decrease might be bad news to the company because it could mean a decrease in net income. Or the decrease might be good news to the company because of an increase in stockholders' investment.
- (e) An increase in the price-earnings ratio is generally good news because it means that the market price per share of stock has increased and investors are willing to pay that higher price for the stock.
- (f) An increase in the debt to assets ratio is bad news because it means that the company has increased its obligations to creditors and has lowered its equity "buffer."
- (g) A decrease in the times interest earned is bad news because it means that the company's ability to meet interest payments as they come due has weakened.

LO 3 BT: C Difficulty: Hard TOT: 6 min. AACSB: None AICPA FC: Reporting IMA: FSA

20. Return on assets = $\frac{\text{Net Income}}{\text{Average Total Assets}}$
(7.6%)

Return on common stockholders' equity = $\frac{\text{Net Income} - \text{Preferred dividends}}{\text{Average common stockholders' equity}}$
(12.8%)

The difference between the two rates can be explained by looking at the denominator value and by remembering the basic accounting equation, $A = L + SE$. The asset value will be the larger of the two denominator values; therefore, it will also give the smaller rate of return.

LO 3 BT: AN Difficulty: Hard TOT: 5 min. AACSB: Analytic AICPA FC: Reporting IMA: FSA

Questions Chapter 14 (Continued)

21. (a) Times interest earned, which is an indication of the company's ability to meet interest charges, and the debt to assets ratio, which indicates the company's ability to withstand losses without impairing the interests of creditors.
- (b) The current ratio and accounts receivable turnover, which indicate a company's liquidity and short-term debt-paying ability.
- (c) The earnings per share of common stock and the return on common stockholders' equity, both of which indicate the earning power of the investment.

LO 3 BT: C Difficulty: Medium TOT: 5 min. AACSB: None AICPA FC: Reporting IMA: FSA

22.
$$\frac{\text{Net income} - \text{Preferred dividends}}{\text{Average common shares outstanding}} = \text{Earnings per share.}$$

$$\frac{\$200,000 - \$20,000}{40,000} = \$4.50$$

EPS of \$4.50 is high relative to what? Is it high relative to last year's EPS? The president may be comparing the EPS of \$4.50 to the market price of the company's stock, which is inappropriate.

LO 3 BT: AP Difficulty: Medium TOT: 4 min. AACSB: Analytic AICPA FC: Reporting IMA: FSA

SOLUTIONS TO DO IT! EXERCISES

DO IT! 14.3

	<u>2022</u>	<u>2021</u>
(a) Current ratio: \$1,380 ÷ \$900 = \$1,310 ÷ \$790 =	1.53:1	1.66:1
(b) Inventory turnover: \$955/ [(\$460 + \$390) ÷ 2] = \$890/ [(\$390 + \$340) ÷ 2] =	2.25 times	2.44 times
(c) Profit margin: \$294 ÷ \$3,800 = \$154 ÷ \$3,460 =	7.7%	4.5%
(d) Return on assets: \$294/[(\$2,340 + \$2,210) ÷ 2] = \$154/[(\$2,210 + \$1,900) ÷ 2] =	12.9%	7.5%
(e) Return on common stockholders' equity: \$294/[(\$1,030 + \$1,040) ÷ 2] = \$154/[(\$1,040 + \$900) ÷ 2] =	28.4%	15.9%
(f) Debt to assets ratio: (\$900 + \$410) ÷ \$2,340 = (\$790 + \$380) ÷ \$2,210 =	56.0%	52.9%
(g) Times interest earned: (\$294 + \$126 + \$25) ÷ \$25 = (\$154 + \$66 + \$20) ÷ \$20 =	17.8 times	12.0 times

LO 3 BT: AP Difficulty: Medium TOT: 12 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

SOLUTIONS TO EXERCISES

EXERCISE 14.1

(a) **HAAS CORPORATION**
Income Statement (Partial)
For the Year Ended October 31, 2022

Income before income taxes	\$540,000
Income tax expense (\$540,000 x 20%)	<u>108,000</u>
Income from continuing operations	432,000
Discontinued operations	
Loss from operations, net of \$10,000	
income tax savings (\$50,000 x 20%).....	\$40,000
Loss on disposal, net of \$14,000	
income tax savings (\$70,000 x 20%).....	<u>56,000</u>
Net income	<u><u>96,000</u></u>
	<u><u>\$336,000</u></u>

(Discont. Oper. = Loss from oper., net of inc. tax. savings + Loss on disp., net of inc. tax savings)

$[(\$96,000) = ((\$50,000) \times (1.00 - .20)) + ((\$70,000) \times (1.00 - .20))]$

(b) **To: Chief Accountant**

From: Your name, Independent Auditor

After reviewing your income statement for the year ended 10/31/22, we believe it is misleading for the following reasons:

The amount reported for income from continuing operations is overstated by \$24,000. The income tax expense should be 20% of \$540,000, or \$108,000, not \$84,000.

Also, the effect of the loss on discontinued operations on net income is only \$96,000, not \$120,000. An income tax savings of \$24,000 should be netted against the loss.

LO 1 BT: AN Difficulty: Medium TOT: 15 min. AACSB: Analytic and Communication AICPA FC: Measurement, Analysis and Interpretation AICPA PC: Communication IMA: Reporting

EXERCISE 14.2

TRAYER CORPORATION
Income Statement (Partial)
For the Year Ended December 31, 2022

Income from continuing operations		\$290,000
Discontinued operations		
Loss from operations, net of \$2,000		
income tax savings (\$10,000 x 20%)	\$ 8,000	
Gain from disposal, net of \$8,000		
income taxes (\$40,000 x 20%)	<u>32,000</u>	<u>24,000</u>
Net income.....		<u><u>\$314,000</u></u>

TRAYER CORPORATION
Statement of Comprehensive Income
For the Year Ended December 31, 2022

Net income	\$314,000
Other comprehensive income	
Unrealized loss on available-for-sale securities,	
net of \$16,000 income tax savings (\$80,000 x 20%)	<u>64,000</u>
Comprehensive income	<u><u>\$250,000</u></u>

(Discont. Oper. = Loss from oper., net of inc. tax. savings + Gain on disp., net of inc. tax.)

$[\$24,000 = ((\$10,000) \times (1.00 - .20)) + (\$40,000 \times (1.00 - .20))]$

LO 1 BT: AP Difficulty: Medium TOT: 15 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation AICPA PC: Communication IMA: Reporting

EXERCISE 14.3

GLITTER INC.
Condensed Balance Sheets
December 31

			Increase or (Decrease)	
	2022	2021	Amount	Percent
Assets				
Current assets	\$106,000	\$ 90,000	\$16,000	17.8%
Plant assets (net)	<u>400,000</u>	<u>350,000</u>	<u>50,000</u>	14.3%
Total assets	<u>\$506,000</u>	<u>\$440,000</u>	<u>\$66,000</u>	15.0%
Liabilities				
Current liabilities	\$ 99,000	\$ 65,000	\$34,000	52.3%
Long-term liabilities	<u>122,000</u>	<u>90,000</u>	<u>32,000</u>	35.6%
Total liabilities	<u>\$221,000</u>	<u>\$155,000</u>	<u>\$66,000</u>	42.6%
Stockholders' Equity				
Common stock, \$1 par	130,000	115,000	15,000	13.0%
Retained earnings	<u>155,000</u>	<u>170,000</u>	<u>(15,000)</u>	(8.8%)
Total stockholders' equity	<u>285,000</u>	<u>285,000</u>	<u>—0—</u>	—0—
Total liabilities and stockholders' equity	<u>\$506,000</u>	<u>\$440,000</u>	<u>\$66,000</u>	15.0%

LO 2 BT: AP Difficulty: Medium TOT: 15 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

EXERCISE 14.4

JOSHUA CORPORATION Condensed Income Statements For the Years Ended December 31

	2022		2021	
	Amount	Percent	Amount	Percent
Net sales	\$800,000	100.0%	\$600,000	100.0%
Cost of goods sold	520,000	65.0%	408,000	68.0%
Gross profit	280,000	35.0%	192,000	32.0%
Selling expenses	120,000	15.0%	72,000	12.0%
Administrative expenses	60,000	7.5%	48,000	8.0%
Total operating expenses	180,000	22.5%	120,000	20.0%
Income before income taxes	100,000	12.5%	72,000	12.0%
Income tax expense	30,000	3.7%	24,000	4.0%
Net income	\$ 70,000	8.8%	\$ 48,000	8.0%

LO 2 BT: AP Difficulty: Medium TOT: 15 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

EXERCISE 14.5

(a)

NIKE, INC. Condensed Balance Sheets May 31 (\$ in millions)

	2022	2021	Increase or (Decrease)	
			Amount	Percent
Assets				
Current assets	\$ 9,734	\$ 8,839	\$895	10.1%
Property, plant, and equipment (net)	1,958	1,891	67	3.5%
Other assets	1,558	1,713	(155)	(9.0)%
Total assets	\$13,250	\$12,443	\$807	6.5%

EXERCISE 14.5 (Continued)

NIKE, INC. Condensed Balance Sheets (Continued) May 31

	2022	2021	Increase or (Decrease)	
			Amount	Percent
Liabilities and stockholders' equity				
Current liabilities	\$ 3,277	\$ 3,322	\$ (45)	(1.4%)
Long-term liabilities	1,280	1,296	(16)	(1.2%)
Stockholders' equity	<u>8,693</u>	<u>7,825</u>	<u>868</u>	11.1%
Total liabilities and stockholders' equity	<u>\$13,250</u>	<u>\$12,443</u>	<u>\$807</u>	6.5%

(b) NIKE, INC. Condensed Balance Sheet May 31, 2022

	\$ (in millions)	Percent
Assets		
Current assets	\$ 9,734	73.5%
Property, plant, and equipment (net)	1,958	14.8%
Other assets	<u>1,558</u>	<u>11.7%</u>
Total assets	<u>\$13,250</u>	<u>100.0%</u>
Liabilities and stockholders' equity		
Current liabilities	\$ 3,277	24.7%
Long-term liabilities	1,280	9.7%
Stockholders' equity	<u>8,693</u>	<u>65.6%</u>
Total liabilities and stockholders' equity	<u>\$13,250</u>	<u>100.0%</u>

LO 2 BT: AP Difficulty: Medium TOT: 20 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

EXERCISE 14.6

(a)

DELANEY CORPORATION
Condensed Income Statement
For the Years Ended December 31

	<u>2022</u>	<u>2021</u>	<u>Increase or (Decrease)</u> <u>During 2022</u>	
			<u>Amount</u>	<u>Percentage</u>
Net sales	\$598,000	\$500,000	\$98,000	19.6%
Cost of goods sold	<u>477,000</u>	<u>420,000</u>	<u>57,000</u>	13.6%
Gross profit	121,000	80,000	41,000	51.3%
Operating expenses	<u>80,000</u>	<u>44,000</u>	<u>36,000</u>	81.8%
Net income	<u>\$ 41,000</u>	<u>\$ 36,000</u>	<u>\$ 5,000</u>	13.9%

(b)

DELANEY CORPORATION
Condensed Income Statements
For the Years Ended December 31

	<u>2022</u>		<u>2021</u>	
	<u>\$</u>	<u>Percent</u>	<u>\$</u>	<u>Percent</u>
Net sales	\$598,000	100.0%	\$500,000	100.0%
Cost of goods sold	<u>477,000</u>	<u>79.8%</u>	<u>420,000</u>	<u>84.0%</u>
Gross profit	121,000	20.2%	80,000	16.0%
Operating expenses	<u>80,000</u>	<u>13.4%</u>	<u>44,000</u>	<u>8.8%</u>
Net income	<u>\$ 41,000</u>	<u>6.8%</u>	<u>\$ 36,000</u>	<u>7.2%</u>

LO 2 BT: AP Difficulty: Medium TOT: 15 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

EXERCISE 14.7

Current ratio = 2.01:1 (\$4,054 ÷ \$2,014)

Accounts receivable turnover = 4.2 times (\$8,258 ÷ \$1,988.5^a)

Average collection period = 86.9 days (365 days ÷ 4.2)

Inventory turnover = 5.9 times (\$5,328 ÷ \$899^b)

Days in inventory = 61.9 days (365 days ÷ 5.9)

^a(\$2,035 + \$1,942) ÷ 2 ^b(\$898 + \$900) ÷ 2

LO 3 BT: AP Difficulty: Medium TOT: 10 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

EXERCISE 14.8

Current ratio as of February 1, 2022 = 3.00:1 ($\$120,000 \div \$40,000$).

- Feb. 3 3.00: No change in total current assets or liabilities.
7 2.43: ($\$97,000^a \div \$40,000$).
11 2.43: No change in total current assets or liabilities.
14 3.04: ($\$85,000^b \div \$28,000^c$).
18 2.66: ($\$85,000 \div \$32,000^d$).

^a $\$120,000 - \$23,000 = \$97,000$

^b $\$120,000 - \$23,000 - \$12,000 = \$85,000$

^c $\$40,000 - \$12,000 = \$28,000$

^d $\$28,000 + \$4,000 = \$32,000$

LO 3 BT: AP Difficulty: Hard TOT: 15 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

EXERCISE 14.9

(a) Current ratio = $\frac{(\$15,000 + \$70,000 + \$60,000)}{\$50,000} = 2.90:1$

(b) Accounts receivable turnover = $\frac{(\$375,000 - \$25,000)}{\$65,000^{(1)}} = 5.4 \text{ times}$

(1) $\frac{(\$70,000 + \$60,000)}{2}$

(c) Average collection period = $365 \text{ days} \div 5.4 = 67.6 \text{ days}$

(d) Inventory turnover = $\frac{\$198,000}{\$65,000^{(2)}} = 3.6 \text{ times}$

(2) $\frac{\$60,000 + \$50,000}{2}$

(e) Days in inventory = $365 \text{ days} \div 3.6 = 101.4 \text{ days}$

(f) Free cash flow = $\$48,000 - \$25,000 - \$10,000 = \$13,000$

LO 3 BT: AP Difficulty: Medium TOT: 12 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

EXERCISE 14.10

(a) Profit margin
$$\frac{\$75.9}{\$5,121.8} = 1.5\%$$

(b) Asset turnover
$$\frac{\$5,121.8}{\left[\frac{\$2,993.9 + \$3,249.8}{2} \right]} = 1.64 \text{ times}$$

(Asset turnover = Net sales ÷ Ave. tot. assets)
[1.64 times = \$5,121.8 ÷ ((\$2,993.9 + \$3,249.8) ÷ 2)]

(c) Return on assets
$$\frac{\$75.9}{\left[\frac{\$2,993.9 + \$3,249.8}{2} \right]} = 2.4\%$$

(Rtn. on assets = Net inc. ÷ Ave. tot. assets)
[2.4% = \$75.9 ÷ ((\$2,993.9 + \$3,249.8) ÷ 2)]

(d) Return on common stockholders' equity
$$\frac{(\$75.9 - \$0)}{\left[\frac{\$921.6 + \$1,074.7}{2} \right]} = 7.6\%$$

(Rtn. on CSE = (Net inc. – Pref. div.) ÷ Ave. common stockholders' equity)
[7.6% = (\$75.9 - \$0) ÷ ((\$921.6 + \$1,074.7) ÷ 2)]

(e) Gross profit rate
$$\frac{\$5,121.8 - \$3,540.6}{\$5,121.8} = 30.9\%$$

LO 3 BT: AP Difficulty: Medium TOT: 10 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

EXERCISE 14.11

(a) Earnings per share
$$\frac{\$72,000 - \$0}{\left[\frac{32,000 + 40,000}{2} \right]} = \frac{\$72,000}{36,000} = \$2.00$$

(EPS = (Net inc. – Pref. div.) ÷ Wtd.-ave. no. of common shs. outstanding)
[\$2.00 = (\$72,000 - \$0) ÷ ((32,000 + 40,000) ÷ 2)]

EXERCISE 14.11 (Continued)

(b) Price-earnings ratio $\frac{\$14.00}{\$2.00} = 7.0 \text{ times}$

(c) Payout ratio $\frac{\$21,000}{\$72,000} = 29.2\%$

(d) Times interest earned $\frac{\$72,000 + \$16,000 + \$24,000}{\$16,000} = \frac{\$112,000}{\$16,000} = 7.0 \text{ times}$

LO 3 BT: AP Difficulty: Medium TOT: 10 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

EXERCISE 14.12

(a) Inventory turnover = 3.8 = $\frac{\text{Cost of goods sold}}{\frac{\$200,000 + \$180,000}{2}}$

$3.8 \times \$190,000 = \text{Cost of goods sold}$
 $\text{Cost of goods sold} = \$722,000.$

(CGS = Ave. inv. \times Inv. turnover)
[\$722,000 = ((\\$200,000 + \\$180,000) \div 2) \times 3.8]

(b) Accounts receivable turnover = 11.2 = $\frac{\text{Net credit sales}}{\frac{\$126,000 + \$72,500}{2}}$

$11.2 \times \$99,250 = \text{Net credit sales} = \$1,111,600.$

(Net credit sales = Ave. accts. rec. \times Accts. rec. turnover)
[\$1,111,600 = ((\\$126,000 + \\$72,500) \div 2) \times 11.2]

(c) Return on common stockholders' equity = 22% =

$\frac{\text{Net income}}{\frac{\$400,000 + \$113,500 + \$400,000 + \$101,000}{2}}$

$.22 \times \$507,250 = \text{Net income} = \$111,595.$

EXERCISE 14.12 (Continued)

(Net inc. = Ave. common stockholders' equity × Rtn. on common stockholders' equity)

[\$111,595 = ((\\$400,000 + \\$113,500 + \\$400,000 + \\$101,000) ÷ 2) × .22]

$$(d) \text{ Return on assets} = 18\% = \frac{\text{Net income}}{\text{Average assets}} = \frac{\$111,595 \text{ [see (c) above]}}{\text{Average assets}}$$

$$\text{Average assets} = \frac{\$111,595}{.18} = \$619,972$$

$$\frac{\text{Total assets (Dec. 31, 2022)} + \$605,000}{2} = \$619,972$$

$$\text{Total assets (Dec. 31, 2022)} = (\$619,972 \times 2) - \$605,000 = \$634,944.$$

(Ave. assets = Net inc. ÷ Rtn. on assets)

(\$619,972 = \$111,595 ÷ 18%)

LO 3 BT: AN Difficulty: Hard TOT: 20 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

EXERCISE 14.13

	<u>2022</u>	<u>2021</u>
(a) Current ratio:		
\$1,390 ÷ \$820 =	1.70:1	
\$1,310 ÷ \$790 =		1.66:1
(b) Inventory turnover:		
\$970 / [(\$460 + \$390) ÷ 2] =	2.28 times	
\$890 / [(\$390 + \$340) ÷ 2] =		2.44 times
(Inv. turnover = CGS ÷ Ave. inv.)		
[2022: 2.28 = \$970 ÷ ((\$460 + \$390) ÷ 2)]		
(c) Profit margin:		
\$252 ÷ \$3,800 =	6.6%	
\$132 ÷ \$3,460 =		3.8%

EXERCISE 14.13 (Continued)

(d) Return on assets:

$$\begin{array}{lcl} \$252/[(\$2,340 + \$2,210) \div 2] = & 11.1\% & \\ \$132/[(\$2,210 + \$1,900) \div 2] = & & 6.4\% \end{array}$$

(Rtn. on assets = Net inc. \div Ave. tot. assets)

[2022: 11.1% = $\$252 \div ((\$2,340 + \$2,210) \div 2)$]

(e) Return on common stockholders' equity:

$$\begin{array}{lcl} \$252/[(\$1,040 + \$1,040) \div 2] = & 24.2\% & \\ \$132/[(\$1,040 + \$900) \div 2] = & & 13.6\% \end{array}$$

(Rtn. on common stockholders' equity = Net inc. \div Ave. common stockholders' equity)

[2022: 24.2% = $\$252 \div ((\$1,040 + \$1,040) \div 2)$]

(f) Debt to assets ratio:

$$\begin{array}{lcl} (\$820 + \$480) \div \$2,340 = & 55.6\% & \\ (\$790 + \$380) \div \$2,210 = & & 52.9\% \end{array}$$

(g) Times interest earned:

$$\begin{array}{lcl} (\$252 + \$168 + \$10) \div \$10 = & 43 \text{ times} & \\ (\$132 + \$88 + \$20) \div \$20 = & & 12 \text{ times} \end{array}$$

LO 3 BT: AP Difficulty: Medium TOT: 20 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

SOLUTIONS TO PROBLEMS

PROBLEM 14.1

(a) **Condensed Income Statement
For the Year Ended December 31, 2022**

	<u>Duke Company</u>		<u>Lord Company</u>	
	<u>Dollars</u>	<u>Percent</u>	<u>Dollars</u>	<u>Percent</u>
Net sales	\$1,849,000	100.0%	\$546,000	100.0%
Cost of goods sold	<u>1,063,200</u>	<u>57.5%</u>	<u>289,000</u>	<u>52.9%</u>
Gross profit	785,800	42.5%	257,000	47.1%
Operating expenses	<u>240,000</u>	<u>13.0%</u>	<u>82,000</u>	<u>15.0%</u>
Income from operations	545,800	29.5%	175,000	32.1%
Other expenses and losses				
Interest expense	<u>6,800</u>	<u>.4%</u>	<u>3,600</u>	<u>.7%</u>
Income before income taxes	539,000	29.1%	171,400	31.4%
Income tax expense	<u>62,000</u>	<u>3.4%</u>	<u>28,000</u>	<u>5.1%</u>
Net income	<u>\$ 477,000</u>	<u>25.8%</u>	<u>\$143,400</u>	<u>26.3%</u>

- (b) From an analysis of only dollar amounts, Duke Company seems more profitable than Lord Company; Duke Company's gross profit, income from operations, and net income all far exceed those of Lord Company.

A vertical analysis, however, yields a different conclusion. Lord Company's gross profit, income from operations and net income as a percent of net sales exceed those of Duke Company. Also, Lord Company's return on assets of 67.0% ($\$143,400 \div \$214,172$)^b exceeds Duke Company's return on assets of 57.3% ($\$477,000 \div \$832,593$)^a; and Lord Company's return on common stockholders' equity of 93.1% ($143,400 \div \$154,047$)^d exceeds Duke Company's return on common stockholders' equity of 72.3% ($\$477,000 \div \$659,528$)^c. Both the vertical analysis and the two ratios indicate that Lord Company is more profitable.

PROBLEM 14.1 (Continued)

^a\$477,000 is Duke's 2022 net income. \$832,593 is Duke's 2022 average assets:

	2022	2021	
Current assets	\$325,975	\$312,410	
Plant assets	526,800	500,000	
(net)	<u>\$852,775</u>	<u>\$812,410</u>	= <u>\$1,665,185</u>
Total assets			2

^b\$143,400 is Lord's 2022 net income. \$214,172 is Lord's 2022 average assets:

	2022	2021	
Current assets	\$ 83,336	\$ 79,467	
Plant assets	139,728	125,812	
(net)	<u>\$223,064</u>	<u>\$205,279</u>	= <u>\$428,343</u>
Total assets			2

^c\$477,000 is Duke's 2022 net income. \$659,528 is Duke's 2022 average common stockholders' equity:

	2022	2021	
Common stock	\$500,000	\$500,000	
Retained earnings	172,460	146,595	
Common Stockholders' equity	<u>\$672,460</u>	<u>\$646,595</u>	= <u>\$1,319,055</u>
			2

^d\$143,400 is Lord's 2022 net income. \$154,047 is Lord's 2022 average common stockholders' equity:

	2022	2021	
Common stock	\$120,000	\$120,000	
Retained earnings	38,096	29,998	
Common stockholders' equity	<u>\$158,096</u>	<u>\$149,998</u>	= <u>\$308,094</u>
			2

PROBLEM 14.2

$$(a) \text{ Earnings per share} = \frac{(\$218,000 - \$0)}{59,000^{(1)}} = \$3.69$$

$$(1) \left(\frac{60,000^* + 58,000^{**}}{2} \right) \quad \frac{*\$300,000}{\$5} \quad \frac{**\$290,000}{\$5}$$

Note: There was no treasury stock, so the number of shares issued equals the number of shares outstanding.

$$(b) \text{ Return on common stockholders' equity} = \frac{(\$218,000 - \$0)}{\left[\frac{\$465,400 + \$603,400}{2} \right]}$$

$$= \frac{\$218,000}{\$534,400}$$

$$= 40.8\%$$

(Rtn. on common stockholders' equity = (Net inc. - Pref. div.) ÷ Ave. common stockholders' equity)
 [40.8% = (\$218,000 - \$0) ÷ ((\$465,400 + \$603,400) ÷ 2)]

$$(c) \text{ Return on assets} = \frac{\$218,000}{\left[\frac{\$852,800 + \$1,026,900}{2} \right]} = \frac{\$218,000}{\$939,850} = 23.2\%$$

(Rtn. on assets = Net inc. ÷ Ave. tot. assets)
 [23.2% = \$218,000 ÷ ((\$852,800 + \$1,026,900) ÷ 2)]

$$(d) \text{ Current ratio} = \frac{\$377,900}{\$203,500} = 1.86:1$$

PROBLEM 14.2 (Continued)

$$\begin{aligned} \text{(e) Accounts receivable turnover} &= \frac{\$1,890,540}{\left[\frac{(\$102,800 + \$117,800)}{2} \right]} \\ &= \frac{\$1,890,540}{\$110,300} = 17.1 \text{ times} \end{aligned}$$

(Accts. rec. turnover = Net credit sales ÷ Ave. net accts. rec.)

[17.1 times = \$1,890,540 ÷ ((\$102,800 + \$117,800) ÷ 2)]

$$\text{(f) Average collection period} = 365 \text{ days} \div 17.1 = 21.3 \text{ days}$$

$$\text{(g) Inventory turnover} = \frac{\$1,058,540}{\left[\frac{\$115,500 + \$126,000}{2} \right]} = \frac{\$1,058,540}{\$120,750} = 8.8 \text{ times}$$

(Inv. turnover = CGS ÷ Ave. inv.)

[8.8 times = \$1,058,540 ÷ ((\$115,500 + \$126,000) ÷ 2)]

$$\text{(h) Days in inventory} = 365 \text{ days} \div 8.8 = 41.5 \text{ days}$$

$$\text{(i) Times interest earned} = \frac{\$218,000 + \$92,000 + \$22,000}{\$22,000} = 15.1 \text{ times}$$

$$\text{(j) Asset turnover} = \frac{\$1,890,540}{\left[\frac{\$1,026,900 + \$852,800}{2} \right]} = 2.01 \text{ times}$$

(Asset turnover = Net sales ÷ Ave. tot. assets)

[2.01 times = \$1,890,540 ÷ ((\$1,026,900 + \$852,800) ÷ 2)]

$$\text{(k) Debt to assets ratio} = \frac{\$423,500}{\$1,026,900} = 41\%$$

$$\text{(l) Free cash flow} = \$220,000 - \$136,000 - \$70,000 = \$14,000$$

LO 3 BT: AP Difficulty: Medium TOT: 30 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

PROBLEM 14.3

(a)	2022	2021
(1) Profit margin	$\frac{\$95,000}{\$700,000} = 13.6\%$	$\frac{\$70,000}{\$570,000} = 12.3\%$
(2) Gross profit rate	$\frac{\$275,000}{\$700,000} = 39.3\%$	$\frac{\$220,000}{\$570,000} = 38.6\%$
(3) Asset turnover	$\frac{\$700,000}{\left[\frac{\$600,000 + \$725,000}{2} \right]} = 1.06 \text{ times}$	$\frac{\$570,000}{\left[\frac{\$533,000 + \$600,000}{2} \right]} = 1.01 \text{ times}$
	(Asset turnover = Net Sales ÷ Ave. tot. assets) [2022: 1.06 times = \$700,000 ÷ ((\$600,000 + \$725,000) ÷ 2)]	
(4) Earnings per share	$\frac{\$95,000}{\left[\frac{31,000 + 32,000}{2} \right]} = \3.02	$\frac{\$70,000}{\left[\frac{30,000 + 31,000}{2} \right]} = \2.30
	Note: There was no treasury stock, so number of shares issued equals number of shares outstanding. Divide the total amount for common stock each year by the \$10 par value.	
(5) Price-earnings ratio	$\frac{\$8.50}{\$3.02} = 2.8 \text{ times}$	$\frac{\$7.50}{\$2.30} = 3.3 \text{ times}$
(6) Payout ratio	$\frac{\$45,000^{**}}{\$95,000} = 47\%$	$\frac{\$58,000^{*}}{\$70,000} = 83\%$
	**(\$125,000 + \$95,000 – \$175,000) (2021 Ret. earn. + 2022 Net inc. – 2022 Ret. earn.)	*(\$113,000 + \$70,000 – \$125,000) (2020 Ret.earn. + 2021 Net inc. – 2021 Ret. earn.)

PROBLEM 14.3 (Continued)

(7) Debt to assets ratio

$$\frac{(\$85,000 + \$145,000)}{\$725,000} = 32\%$$

$$\frac{(\$80,000 + \$85,000)}{\$600,000} = 28\%$$

- (b) The underlying profitability of the corporation appears to have improved. For example, profit margin and earnings per share have both increased. The corporation's debt to assets ratio has increased but the improvements in profitability indicate that taking on more debt was a wise move.

LO 3 BT: AN Difficulty: Medium TOT: 30 min. AACSB: Analytic and Communication AICPA FC: Measurement, Analysis and Interpretation AICPA PC: Communication IMA: FSA

PROBLEM 14.4

(a) LIQUIDITY

	<u>2022</u>	<u>2021</u>	<u>% Change</u>
Current ratio	$\frac{\$484,000}{\$275,000} = 1.76:1$	$\frac{\$383,000}{\$212,000} = 1.81:1$	(3%)
Accounts receivable turnover	$\frac{\$882,000}{\$97,000} = 9.1 \text{ times}$	$\frac{\$790,000}{\$88,000} = 9.0 \text{ times}$	1%
Inventory turnover	$\frac{\$640,000}{\$197,500} = 3.2 \text{ times}$	$\frac{\$575,000}{\$140,000} = 4.1 \text{ times}$	(22%)

An overall decrease in liquidity has occurred.

(Both accts. rec. and inv. turnovers have an ave. in their denominator)

PROFITABILITY

Profit margin	$\frac{\$52,000}{\$882,000} = 5.9\%$	$\frac{\$48,000}{\$790,000} = 6.1\%$	(3%)
Asset turnover	$\frac{\$882,000}{\$786,000} = 1.12 \text{ times}$	$\frac{\$790,000}{\$679,000} = 1.16 \text{ times}$	(3%)
Return on assets	$\frac{\$52,000}{\$786,000} = 6.6\%$	$\frac{\$48,000}{\$679,000} = 7.1\%$	(7%)
Earnings per share	$\frac{\$52,000}{20,000} = \2.60	$\frac{\$48,000}{20,000} = \2.40	8%

Note: Since there was no treasury stock, number of shares issued is equal to number shares outstanding.

Profitability has decreased slightly.

(Both asset turnover and rtn. on assets have the same ave. in their denominator)

PROBLEM 14.4 (Continued)

(b)		<u>2022</u>	<u>2023</u>	<u>%Change</u>
1.	Return on common stockholders' equity	$\frac{\$52,000}{\$332,500^{(a)}} = 15.6\%$	$\frac{\$54,000}{\$466,000^{(b)}} = 11.6\%$	(26%)
2.	Debt to assets ratio	$\frac{\$525,000}{\$874,000} = 60\%$	$\frac{\$355,000}{\$900,000} = 39\%$	(35%)
3.	Price-earnings ratio	$\frac{\$9.00}{\$2.60} = 3.5 \text{ times}$	$\frac{\$12.00}{\$2.70^{(c)}} = 4.4 \text{ times}$	26%

(a) $(\$200,000 + \$149,000 + \$200,000 + \$116,000) \div 2.$

(b) $(\$380,000^* + \$203,000^{**} + \$200,000 + \$149,000) \div 2.$

(c) $\$54,000 \div 20,000.$

* $\$200,000 + (18,000 \times \$10/\text{share})$

** $\$149,000 + \$54,000$

Note: Since there was no treasury stock, shares issued is equal to shares outstanding.

(Rtn. on common stockholders' equity has an ave. in its denominator)

LO 3 BT: AN Difficulty: Medium TOT: 50 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

PROBLEM 14.5

(a)	Ratio	Target	Walmart
	(All Dollars Are in Millions)		
(1) Current ratio	1.63:1	(\$18,424 ÷ \$11,327)	.87:1 (\$48,331 ÷ \$55,561)
(2) Accounts receivable turnover	8.7	(\$65,357 ÷ \$7,525)	101.4 (\$408,214 ÷ \$4,025)
(3) Average collection period (in days)	42.0	(365 ÷ 8.7)	3.6 (365 ÷ 101.4)
(4) Inventory turnover	6.6	(\$45,583 ÷ \$6,942)	9.0 (\$304,657 ÷ \$33,836)
(5) Days in inventory	55.3	(365 ÷ 6.6)	40.6 (365 ÷ 9.0)
(6) Profit margin	3.8%	(\$2,488 ÷ \$65,357)	3.5% (\$14,335 ÷ \$408,214)
(7) Asset turnover	1.5	(\$65,357 ÷ \$44,319.5 ^a)	2.4 (\$408,214 ÷ \$167,067.5 ^d)
(8) Return on assets	5.6%	(\$2,488 ÷ \$44,319.5 ^a)	8.6% (\$14,335 ÷ \$167,067.5 ^d)
(9) Return on common stockholders' equity	17.1%	(\$2,488 ÷ \$14,529.5 ^b)	21.0% (\$14,335 ÷ \$68,369 ^e)
(10) Debt to assets ratio	66%	(\$29,186 ÷ \$44,533)	58% (\$99,650 ÷ \$170,706)
(11) Times interest earned	6.5	(\$4,579 ^c ÷ \$707)	11.4 (\$23,539 ^f ÷ \$2,065)
(12) Free cash flow	\$3,656	(\$5,881 – \$1,729 – \$496)	\$9,848 (\$26,249 – \$12,184 – \$4,217)

$$^a(\$44,533 + \$44,106) \div 2$$

$$^b(\$15,347 + \$13,712) \div 2$$

$$^c(\$2,488 + \$1,384 + \$707)$$

$$^d(\$170,706 + \$163,429) \div 2$$

$$^e(\$71,056 + \$65,682) \div 2$$

$$^f(\$14,335 + \$7,139 + \$2,065)$$

(b) The comparison of the two companies shows the following:

Liquidity—Target's current ratio of 1.63:1 is better than Walmart's .87:1. However, Walmart has a better inventory turnover than Target and its accounts receivable turnover is significantly better than Target's.

Solvency—Walmart betters Target in all of the solvency ratios. Thus, it is more solvent than Target.

Profitability—With the exception of profit margin, Walmart betters Target in all of the profitability ratios. Thus, it is more profitable than Target.

LO 3 BT: AN Difficulty: Medium TOT: 60 min. AACSB: Analytic and Communication AICPA FC: Measurement, Analysis and Interpretation AICPA PC: Communication IMA: FSA

(a) Liquidity Ratios	Coca-Cola	PepsiCo
(1) Current ratio	1.28:1 ($\$17,551 \div \$13,721$)	1.44:1 ($\$12,571 \div \$8,756$)
(2) Accounts receivable turnover	9.1 times ($\$30,990 \div \$3,424$)	9.3 times ($\$43,232 \div \$4,654$)
(3) Average collection period	40.1 days ($365 \div 9.1$)	39.2 days ($365 \div 9.3$)
(4) Inventory turnover	4.9 times ($\$11,088 \div \$2,271$)	7.8 times ($\$20,099 \div \$2,570$)
(5) Days in inventory	74.5 ($365 \div 4.9$)	46.8 ($365 \div 7.8$)

PepsiCo is more liquid than Coca-Cola. PepsiCo betters Coca-Cola in all of the ratios.

(b) Solvency Ratios	Coca-Cola	PepsiCo
(1) Debt to assets ratio	$\frac{\$23,872}{\$48,671} = 49\%$	$\frac{\$23,044}{\$39,848} = 58\%$
(2) Times interest earned	$\frac{\$6,824 + \$2,040 + \$355}{\$355} = 26.0 \text{ times}$	$\frac{\$5,946 + \$2,100 + \$397}{\$397} = 21.3 \text{ times}$
(3) Free cash flow	$\$8,186 - \$1,993 - \$3,800 = \$2,393$	$\$6,796 - \$2,128 - \$2,732 = \$1,936$

Coca-Cola is more solvent than PepsiCo.

CT14.3 (Continued)

(c) Profitability Ratios	Coca-Cola	PepsiCo
(1) Profit margin	22.0% (\$6,824 ÷ \$30,990)	13.8% (\$5,946 ÷ \$43,232)
(2) Asset turnover	.69 times (\$30,990 ÷ \$44,595)	1.14 times (\$43,232 ÷ \$37,921)
(3) Return on assets	15.3% (\$6,824 ÷ \$44,595)	15.7% (\$5,946 ÷ \$37,921)
(4) Return on common stockholders' equity	30.1% (\$6,824 ÷ \$22,636)	40.8% (\$5,946 ÷ \$14,556)

PepsiCo, Inc. has a lower profit margin than the Coca-Cola Company. However, PepsiCo, Inc. has a higher asset turnover, return on assets, and return on common stockholders' equity.

LO 3 BT: AP Difficulty: Medium TOT: 45 min. AACSB: Analytic AICPA FC: Measurement, Analysis and Interpretation IMA: FSA

- (a) Lenders prefer that financial statements are audited because an audit gives independent assurance that the financial statements give a reasonable representation of the company's financial position and results of operations. With this independent assurance, they feel more comfortable making a decision.
- (b) The current ratio increase is a favorable indication as to liquidity but alone tells little about the going-concern prospects of the client. From this ratio change alone, it is impossible to know the amount and direction of the changes in individual accounts, total current assets, and total current liabilities. Also unknown are the reasons for the changes.

The change in asset turnover cannot alone tell anything about either solvency or going-concern prospects. There is no way to know the amount and the direction of the changes in the two items. An increase in sales would be favorable for going-concern prospects, while a decrease in assets could represent a number of possible scenarios and would need to be investigated further.

The increase in net income is a favorable indicator for both solvency and going-concern prospects although much depends on the quality of receivables generated from sales and how quickly they can be converted into cash. Indirectly, the improved income picture may have a favorable impact on solvency and going-concern potential by enabling the client to borrow currently to meet cash requirements.

The 32 percent $[(\$3.30 - \$2.50) \div \$2.50]$ increase in earnings per share, which is identical to the percentage increase in net income, is an indication there has probably been no change in the number of shares of common stock outstanding. This in turn indicates that financing was not obtained through the issuance of common stock. It is not

possible to reach conclusions about solvency and going-concern prospects without additional information about the nature and extent of financing.

The collective implications of these data alone are that the client entity is about as solvent and viable as a going concern at the end of the CT current year as it was at the beginning although there may be a need for short-term operating cash.

CT14.6 (Continued)

Although a quick evaluation of a reporting entity can be made using only a few ratios and comparing these with past ratios and industry statistics, the creditors should realize the limitations of such analysis even from the best prepared statements carrying a CPA's unqualified opinion.

A limitation on comparisons with industry statistics or other companies within the industry exists because material differences can be created through the use of alternative (but acceptable) accounting methods. Further, when evaluating changes in ratios or percentages, the evaluation should be directed to the nature of the item being evaluated because very small differences in ratios or percentages can represent significant changes in dollar amounts or trends.

The creditors should evaluate conclusions drawn from ratio analysis in light of the current status of, and expected changes in, such things as general economic conditions, the client's competitive position, the public's demand (for the product itself, increased quality of the product, control of noise and pollution, etc.), and the client's specific plans.

- (c) 1. Accounts receivable turnover—indicates liquidity.
- 2. Debt to assets ratio—indicates solvency.
- 3. Times interest earned—indicates ability to repay interest when due.

Other answers are possible.

LO 3 BT: E Difficulty: Hard TOT: 60 min. AACSB: Analytic and Communication AICPA FC: Measurement and Reporting AICPA PC: Interaction, Leadership and Communication IMA: FSA

To: Larry Dundee

From: Accounting Student

Re: Financial Statement Analysis

There are two fundamental considerations in financial statement analysis: (1) the bases of comparison and (2) the limitations of financial statement analysis. Each of these considerations is explained below.

- 1. Bases of comparison. The bases of comparison are:**
 - a. Intracompany—This basis compares an item or financial relationship within a company in the current year with the same item or relationship in one or more prior years.**
 - b. Intercompany—This basis compares an item or financial relationship of one company with the same item or relationship in one or more competing companies.**
 - c. Industry averages—This basis compares an item or financial relationship of a company with industry averages (or norms).**
- 2. Three factors that affect quality of earnings are:**
 - a. Alternative accounting methods—Variations among companies in the application of generally accepted accounting principles (GAAP) can cause variation in earnings quality across companies.**
 - b. Pro forma income—Many companies now report non-GAAP income measures in addition to GAAP income. There is little guidance regarding these measures, thus the earnings quality of these measures is difficult to determine.**
 - c. Improper recognition—In order to meet earnings targets, some companies record revenues and expenses in the wrong period. This directly reduces earnings quality.**

LO 1, 2 BT: C Difficulty: Medium TOT: 30 min. AACSB: Communication AICPA FC: Measurement, Analysis and Interpretation AICPA PC: Communication IMA: Reporting

- (a) **The stakeholders in this case are:**
René Kelly, president of RL Industries.
Erin Lourdes, public relations director.
You, as controller of RL Industries.
Stockholders of RL Industries.
Potential investors in RL Industries.
Any readers of the press release.
- (b) **The president's press release is deceptive and incomplete and to that extent her actions are unethical.**
- (c) **As controller you should at least inform Erin, the public relations director, about the biased content of the release. She should be aware that the information she is about to release, while factually accurate, is deceptive and incomplete. Both the controller and the public relations director (if she agrees) have the responsibility to inform the president of the bias of the about-to-be-released information.**

LO 3 BT: E Difficulty: Medium TOT: 20 min. AACSB: Analytic, Communication and Ethics AICPA FC: Reporting AICPA PC: Communication and Ethical Conduct IMA: Business Applications

Student responses will vary. We suggest that in class you ask for a few students to share their responses in order to increase students' understanding of the reasons why different people will choose different investment vehicles.

LO - BT: AN Difficulty: Easy TOT: 20 min. AACSB: Analytic and Technology AICPA FC: Reporting IMA: Investment Decisions