

Chapter 13 Understanding Financial Statements

13.1: (d)

[F] (a). The balance sheet statement summarizes how much the firm owns as well as owes for a typical operating period. (Note: a specified reporting period)

[F] (b) The income statement summarizes the net income produced by the corporation at a specified reporting date. (Note: a typical operating period)

[F] (c) The cash flow statement summarizes how the corporation generated cash during the operating period. Note: It summarizes how the company generates its cash and where it spent during the reporting period.

13.2: (d)

[T] 4. Working capital measures the company's ability to repay current liabilities using only current assets.

[T] 5. The days sales outstanding (DSO) represents the average length of time that the firm must wait after making a sale before receiving cash.

[T] 6. The lower debt ratio, the greater the protection afforded creditors in the event of liquidation.

13.3: (d)

[T] (a). P/E ratios are higher for firms with high growth prospects, other things held constant, but they are lower for riskier firms.

[T] (b). Higher market/book (MB) ratios are generally associated with firms that have a high rate of return on common equity.

[T] (c). A high quick ratio is NOT always a good indication of a well-managed liquidity position. Note: Excess cash resulting from poor management could produce a high quick ratio. Similarly, if accounts receivable are not collected promptly, this could also lead to a high quick ratio

13.4: (c)

[F] (a). A decline in inventory turnover ratio suggests that the firm's liquidity position is improving. Note: A decline in inventory turnover ratio indicates that it takes longer to liquidate inventory.

[F] (b). The profit margin on sales is calculated by dividing net operating income by sales

(Note: net income rather than operating income)

[T] (c) When a corporation buys back its own stock, this is called Treasury Stock. The firm's cash and equity are both reduced.

13.5: (d)

Statement (a) is just reverse of what actually occurs. Firms with high profit margins have low turnover ratios and vice versa. Statement (b) is false, as excess cash resulting from poor management could produce a high quick ratio. Statement (c) is also false, as two firms with the same EBIT do not necessarily have the same total assets. Statement (d) is correct—whenever the same amount of reduction in the numerator and denominator, the ratio is increasing.

The following data apply to the next six problems. Consider Fisher & Company's financial data as follows: (unit: millions of dollars except ratio figures):

• Cash and marketable securities	\$100
• Fixed assets	\$280
• Sales	\$1,200
• Net income	\$358
• Inventory	\$180
• Current ratio	3.2
• Average collection period	45 days
• Average common equity	\$500

13.6: (a)

$$\begin{aligned}\text{Average collection period} &= \frac{\text{A/R}}{\text{Annual Sales}/365} \\ &= \frac{\text{A/R}}{\$1,200/365} \\ &= 45 \text{ days} \\ \text{A/R} &= 45(1200/365) = \$147.95\end{aligned}$$

13.7: (d)

$$\begin{aligned}\text{Current assets} &= \text{Cash and marketable securities} + \text{A/R} + \text{Inventory} \\ &= \$100 + 148 + \$180 = \$428\end{aligned}$$

13.8: (b)

$$\begin{aligned}\text{Current ratio} &= \frac{\text{Current assets}}{\text{Current liabilities}} = \frac{\$428}{\text{Current liabilities}} = 3.2 \\ \text{Current liabilities} &= \$428/3.2 = \$134\end{aligned}$$

13.9: (d)

$$\begin{aligned}\text{Total assets} &= \text{Current assets} + \text{Fixed assets} = \$428 + \$280 \\ &= \$708\end{aligned}$$

13.10: (c)

$$\begin{array}{ll} \text{(a) } \$134 & \text{(b) } \$500 \\ \text{(c) } \$74 & \text{(d) } \$208 \end{array}$$

$$\begin{aligned}\text{Total assets} &= \text{Current assets} + \text{Fixed assets} = \$428 + \$280 \\ &= \$708\end{aligned}$$

$$\begin{aligned}\text{Total assets} &= \text{Common equity} + \text{Current liabilities} + \text{Long-term debt} \\ \$708 &= \$500 + \$134 + \text{Long-term liabilities}\end{aligned}$$

$$\text{Long-term liabilities} = \$74$$

13.11: (b)

$$\text{Profit-margin} = \frac{\text{Net income}}{\text{Net sales}} = \frac{\$358}{\$1,200} = 30\%$$

The following financial statements apply to the next six problems, 13.12 – 13.18.

Inland Manufacturing Balance Sheet
(Dollars in Millions)

	December 31, 2005	December 31, 2005
Cash	\$ 400	\$ 300
Account Receivables	560	450
Inventory	790	550
Total current assets	\$1,750	\$1,300
Total fixed assets	1,200	1,210
Total assets	\$2,950	\$2,510
Account payable	\$ 350	\$ 250
Note payable	470	330
Other current liabilities	220	130
Total current liabilities	\$1,040	\$ 710
Long-term debt	580	580
Common equity	\$1,330	\$1,220
Total liabilities and equity	\$2,950	\$2,510

Inland Manufacturing Income Statement
December 31, 2005
(Dollars in Millions)

Gross sales		\$2,450
Cost of goods sold:		
Materials	\$230	
Labor	850	
Overhead	230	
Depreciation	400	\$1,710
Gross profit		\$ 740
Selling expenses		40
General and administrative expenses		60
Earnings before interest and taxes (EBIT)		\$ 640
Interest expenses		25
Earnings before income taxes		\$ 615
Provision for income taxes (40%)		246
Net income		\$ 369

13.12: (a)

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} = \frac{\$1,750}{\$1,040} = 1.68$$

$$\text{Quick ratio} = \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}} = \frac{\$1,750 - \$790}{\$1,040} = 0.92$$

13.13: (b)

$$\text{Debt ratio} = \frac{\text{Total debt}}{\text{Total assets}} = \frac{\$1,620}{\$2,950} = 0.55$$

$$\text{Times-interest-earned ratio} = \frac{\text{EBIT}}{\text{Interest expense}} = \frac{\$640 + \$25}{\$25} = 26.60$$

13.14: (a).

$$\text{Inventory turnover ratio} = \frac{\text{Sales}}{\text{Average inventory}} = \frac{\$2,450}{(\$790 + \$550)/2} = 3.66 \text{ times}$$

$$\text{Total asset turnover ratio} = \frac{\text{Sales}}{\text{Total assets}} = \frac{\$2,450}{\$2,950} = 0.83 \text{ times}$$

$$\text{Days Sales Outstanding} = \frac{\text{Accounts receivable}}{\text{Average sales per day}} = \frac{\$560}{\$2,450/365} = 83.43 \text{ days}$$

13.15: (b)

$$\text{Profit margin on sales} = \frac{\text{Net income}}{\text{Sales}} = \frac{\$369}{\$2,450} = 15\%$$

$$\text{Return on total assets} = \frac{\text{Net income} + \text{Interest expense} (1 - \text{tax rate})}{\text{Average total assets}}$$

$$= \frac{\$369 + \$25(1 - 0.40)}{(\$2,510 + \$2,950)/2} = 14\%$$

$$\text{Return on equity} = \frac{\text{Net income}}{\text{Average common equity}} = \frac{\$369}{(\$1,330 + \$1,220)/2} = 29\%$$

13.16: (c)

$$\text{P/E ratio} = \frac{\text{Market price per share}}{\text{Earnings per share}} = \frac{\$35}{\$369/100} = 9.49$$

$$\begin{aligned}\text{Book value} &= \frac{\text{Total stockholder's equity} - \text{Preferred stock}}{\text{Shares outstanding}} \\ &= \frac{\$1,330 - 0}{100} = \$13.30\end{aligned}$$

$$\text{Market/BV} = \frac{\$35 \text{ per share}}{\$13.30 \text{ per share}} = 2.63$$

13.17: (b)

$$\text{Current ratio before action} = 1.68$$

$$\text{Current ratio after action} = \frac{\$1,750 - \$350}{\$1,040 - \$350} = 2.03$$

13.18: (c)

$$\text{Current ratio before action} = 1.68$$

$$\text{Current ratio after action} = \frac{\$1,750 - \$350}{\$1,040} = 1.35$$
