Chapter 2
Financial Statements and Analysis

■ Instructor's Resources

Overview

This chapter examines four key components of the stockholders' report: the income statement (now Statement of Comprehensive Income as per IFRS), balance sheet (now Statement of Financial Position as per IFRS), statement of retained earnings, and the statement of cash flows. On the income statement and balance sheet, the major accounts/balances are reviewed for the student. The rules for consolidating a company's foreign and domestic financial statements (IAS 27 in Arab context) (FASB No. 52 in US context) are described in IFRS and US GAAP respectively. Following the financial statement coverage the chapter covers the evaluation of financial statements using the technique of ratio analysis. Ratio analysis is used by prospective shareholders, creditors, and the firm's own management to measure the firm's operating and financial health. Three types of comparative analysis are defined: cross-sectional analysis, time-series analysis, and combined analysis. The ratios are divided into five basic categories: liquidity, activity, debt, profitability, and market. We use the example of Awal Company's financial statements to define and calculate each ratio. A brief explanation of the implications of deviation from industry standard ratios is offered, with a complete (cross-sectional and time-series) ratio analysis of Awal Company ending the chapter. The DuPont system of analysis is also integrated into the example. The importance of understanding financial statements is highlighted through discussions of how such knowledge will help the student be a more efficient business manager and more effectively make personal financial decisions.

■ Answers to Review Questions

2-1 What roles do GAAP and IFRS play in the financial reporting activities of public companies?

The role of adopting GAAP and IFRS is to create harmonisation, understanding, accuracy, and comparison in financial reporting by various companies.

2-2 Describe the purpose of each of the four major financial statements.

The purpose of each of the four major financial statements are:

Income Statement—The purpose of the income statement is to provide a financial summary of the firm's operating results during a specified time period. It includes both the sales for the firm and the costs incurred in generating those sales. Other expenses, such as taxes, are also included on this statement.

Balance Sheet —The purpose of the balance sheet is to present a summary of the assets owned by the firm, the liabilities owed by the firm, and the net financial position of the owners as of a given point in time. The assets are often referred to as investments and the liabilities and owner's equity as financing.

Statement of Retained Earnings—This statement reconciles the net income earned during the year, and any cash dividends paid, with the change in retained earnings during the year.

Statement of Cash Flows—This statement provides a summary of the cash inflows and the cash outflows experienced by the firm during the period of concern. The inflows and outflows are grouped into the cash flow areas of operations, investment, and financing.

2-3 Why are the notes to the financial statements important to professional securities analysts?

The notes to the financial statements are important because they provide detailed information not directly available in the financial statements. The footnotes provide information on accounting policies, procedures, calculation, and transactions underlying entries in the financial statements.

2-4 With regard to financial ratio analysis, how do the viewpoints held by the firm's present and prospective shareholders, creditors, and management differ?

Current and prospective shareholders place primary emphasis on the firm's current and future level of risk and return as measures of profitability, while creditors are more concerned with short-term liquidity measures of debt. Stockholders are, therefore, most interested in income statement measures, and creditors are most concerned with balance sheet measures. Management is concerned with all ratio measures, since they recognize that stockholders and creditors must see good ratios in order to keep the stock price up and raise new funds.

2-5 What is the difference between cross-sectional and time-series ratio analysis? What is benchmarking?

Cross-sectional comparisons are made by comparing similar ratios for firms within the same industry, or to an industry average, as of some point in time. *Time-series* comparisons are made by comparing similar ratios for a firm measured at various points in time. *Benchmarking* is the term used to describe this cross-sectional comparison with competitor firms.

2-6 What types of deviations from the norm should the analyst pay primary attention to when performing cross-sectional ratio analysis? Why?

The analyst should devote primary attention to any significant deviations from the norm, whether above or below. Positive deviations from the norm are not necessarily favorable. An above-normal inventory turnover ratio may indicate highly efficient inventory management but may also reveal excessively low inventory levels resulting in stock-outs. Further examination into the deviation would be required.

2-7 Why is it preferable to compare ratios calculated using financial statements that are dated at the same point in time during the year?

Comparing financial statements from different points in the year can result in inaccurate and misleading analysis due to the effects of seasonality. Levels of current assets can fluctuate significantly, depending on a company's business, so statements from the same month or year end should be used in the analysis to ensure valid comparisons of performance.

2-8 Under what circumstances would the current ratio be the preferred measure of overall firm liquidity? Under what circumstances would the quick ratio be preferred?

The current ratio proves to be the better liquidity measure when all of the firm's current assets are reasonably liquid. The quick ratio would prove to be the superior measure if the inventory of the firm is considered to lack the ability to be easily converted into cash.

2-9 To assess the firm's average collection period and average payment period ratios, what additional information is needed, and why?

Additional information is necessary to assess how well a firm collects receivables and meets payables. The average collection period of receivables should be compared to a firm's own credit terms. The average payment period should be compared to the creditors' credit terms.

2-10 What is financial leverage?

Financial leverage is the term used to describe the magnification of risk and return introduced through the use of fixed-cost financing, such as debt and preferred stock.

2-11 What ratio measures the firm's degree of indebtedness? What ratios assess the firm's ability to service debts?

The debt ratio and the debt-equity ratio may be used to measure the firm's degree of indebtedness. The times-interest-earned and the fixed-payment coverage ratios can be used to assess the firm's ability to meet fixed payments associated with debt.

2-12 What three ratios of profitability are found on a common-size income statement?

Three ratios of profitability found on a common-size income statement are: (1) the gross profit margin, (2) the operating profit margin, and (3) the net profit margin.

2-13 What would explain a firm's having a high gross profit margin and a low net profit margin?

Firms that have high gross profit margins and low net profit margins have high levels of expenses other than cost of goods sold. In this case, the high expenses more than compensate for the low cost of goods sold (i.e., high gross profit margin) thereby resulting in a low net profit margin.

2-14 Which measure of profitability is probably of greatest interest to the investing public? Why?

The owners are probably most interested in the *return on equity* (*ROE*) since it indicates the rate of return they earn on their investment in the firm. ROE is calculated by taking earnings available to common shareholder and dividing by stockholders' equity.

2-15 How do the price/earnings (P/E) ratio and the market/book (M/B) ratio provide a feel for the firm's return and risk?

The *price-earnings ratio (P/E)* is the market price per share of common stock divided by the earnings per share. It indicates the amount the investor is willing to pay for each dollar of earnings. It is used to assess the owner's appraisal of the value of the firm's earnings. The level of the *P*/*E* ratio indicates the degree of confidence that investors have in the firm's future. The *market/book* (*M*/*B*) ratio is the market price per of common stock divided by the firm's book value per share. Firms with high *M*/*B* ratios are expected to perform better than firms with lower relative *M*/*B* values.

2-16 Financial ratio analysis is often divided into five areas: liquidity, activity, debt, profitability, and market ratios. Differentiate each of these areas of analysis from the others. Which is of the greatest concern to creditors?

Liquidity ratios measure how well the firm can meet its current (short-term) obligations when they come due.

Activity ratios are used to measure the speed with which various accounts are converted (or could be converted) into cash or sales.

Debt ratios measure how much of the firm is financed with other people's money and the firm's ability to meet fixed charges.

Profitability ratios measure a firm's return with respect to sales, assets, or equity.

Market ratios give insight into how well investors in the marketplace feel the firm is doing in terms of return and risk.

The liquidity and debt ratios are most important to present any prospective creditors.

2-17 Describe how you would use a large number of ratios to perform a complete ratio analysis of the firm.

The analyst may approach a complete ratio analysis on either a cross-sectional or time-series basis by summarizing the ratios into their five key areas: liquidity, activity, debt, profitability, and market. Each of the key areas could then be summarized, highlighting specific ratios that should be investigated.

2-18 What three areas of analysis are combined in the modified DuPont formula? Explain how the DuPont system of analysis is used to dissect the firm's results and isolate their causes.

The *DuPont system* of analysis combines profitability (the net profit margin), asset efficiency (the total asset turnover) and leverage (the debt ratio). The division of ROE among these three ratios allows the analyst to the segregate the specific factors that are contributing to the ROE into profitability, asset efficiency, or the use of debt.

■ Answers to Warm-Up Exercises

E2-1. Prepare an income statement.

Answer: a.

Name of Company Income Statement ($000,000)	
Sales revenue	$345.0
Less: Cost of goods sold	155.0
Gross profits	$190.0
Less: Operating expenses	
Sales expense	$ 18.0
General and administrative expenses	22.0
Lease expense	4.0
Depreciation expense	25.0
Total operating expense	$ 69.0
Operating profits (EBIT)	$ 121.0
Less: Interest expense	3.0
Net profit before taxes	$ 118.0
Less: Taxes (rate = 35%)	41.3
Net profits after taxes	$ 76.7
Less preferred stock dividend	4.675
Earnings available for common stockholders	$ 72.025

b. See income statement

c. Additions to retained earnings = ($2.75 – $1.10) 4,250,000 = $7,012.500

E2-2. Income statements and balance statements

Answer: From the table in **a**, the reader can see that the calculations begin with sales revenue and end with net profits after taxes. Had there been a loss for the year, the final result would have been a net loss after taxes.

The balance statement balances the firm's assets against its financing, which can be either debt or equity. The total value of all of the firm's assets should equal the sum of its short- and long-term debt plus stockholder's equity including preferred stock, common stock at par value, paid in capital in excess of par on common stock and retained earnings from previous profitable years in which some of the earnings were held back and not paid out as dividends.

E2-3. Statement of retained earnings

Answer:

Dammam Industries, Inc. Statement of Retained Earnings ($000) for the Year Ended December 31, 2012		
Retained earnings balance (January 1, 2012)		$25,320
Plus: Net profits after taxes (for 2012)		5,150
Less: Cash dividends (paid during 2012)		
Preferred stock	750	
Common stock	3,850	
Total dividends paid		4,600
Retained earnings balance (December 31, 2012)		$25,870

E2-4. Current ratios and quick ratios

Answer: The current ratio is increasing but the quick ratio is declining. Since inventory is included in the calculation of the current ratio, but not in the quick ratio, the ratios indicate that inventory is increasing and Bluestone is not operating in a lean manufacturing mode. As with any analysis using ratios, you should investigate other financial ratios for Bluestone to further assess its financial health.

E2-5. The Dupont method of calculating ROE

Answer: ROE = 4.5% × 0.72 × 1.43 = 4.63%

The advantage of using the Dupont system to calculate ROE over the direct calculation of earnings available for common stockholders ÷ common stock equity is that ROE, the most common measure for stockholders, is broken into three distinct components. Starting at the right we see how financial leverage has increased assets over the owners' original equity. Next, moving to the left, we see how efficiently the firm used its assets to generate sales. Finally, the net profit margin shows the measure of profitability on sales. Each component can be compared with industry standards to see if the firm is underperforming or over performing in any one of the three areas.

■ Solutions to Problems

P2-1. Liquidity management

a.

	2009	**2010**	**2011**	**2012**
Current ratio	1.88	1.74	1.79	1.55
Quick ratio	1.22	1.19	1.24	1.14
Net working capital	$7,950	$9,300	$9,900	$9,600

b. The pattern indicates a deteriorating liquidity position. The decline is most pronounced for the current ratio which includes inventory.

c. The low inventory turnover suggests that liquidity is even worse than the declining liquidity measures indicate. Slow inventory turnover may indicate obsolete inventory.

P2-2. Debt analysis

Ratio	Definition	Calculation	GMC	Industry
Debt	$\frac{\text{Debt}}{\text{Total assets}}$	$\frac{\$36,500,000}{\$50,000,000}$	0.73	0.51
Times Interest earned	$\frac{\text{EBIT}}{\text{Interest}}$	$\frac{\$3,000,000}{\$1,000,000}$	3.00	7.30
Fixed Payment Coverage	$\frac{\text{EBIT + Lease payment}}{\text{Interest + Lease payments + \{[(principal + preferred stock Dividends)] × [1 ÷ (1 – t)]\}}}$	$\frac{\$3,000,000 + \$200,000}{\$1,000,000 + \$200,000 + \{[(\$800,000 + \$100,000)] × [1 ÷ (1 – 0.4)]\}}$	1.19	1.85

Because GMC Enterprises has a much higher degree of indebtedness and much lower ability to service debt than the average firm in the industry, the loan should be rejected.

P2-3. The relationship between financial leverage and profitability

a. (1) $\text{Debt ratio} = \frac{\text{total liabilities}}{\text{total assets}}$

$$\text{Debt ratio}_{\text{Pelican}} = \frac{\$1,000,000}{\$10,000,000} = 0.10 = 10\%$$

$$\text{Debt ratio}_{\text{Timberland}} = \frac{\$5,000,000}{\$10,000,000} = 0.50 = 50\%$$

(2) $\text{Times interest earned} = \frac{\text{earning before interest and taxes}}{\text{interest}}$

$$\text{Times interest earned}_{\text{Pelican}} = \frac{\$6,250,000}{\$100,000} = 62.5$$

$$\text{Times interest earned}_{\text{Timberland}} = \frac{\$6,250,000}{\$500,000} = 12.5$$

Timberland has a much higher degree of financial leverage than does Blue Nile. As a result Timberland's earnings will be more volatile, causing the common stock owners to face greater risk. This additional risk is supported by the significantly lower times interest earned ratio of Timberland. Blue Nile can face a very large reduction in net income and still be able to cover its interest expense.

b. (1) $\text{Operating profit margin} = \frac{\text{operating profit}}{\text{sales}}$

$$\text{Operating profit margin}_{\text{Pelican}} = \frac{\$6,250,000}{\$25,000,000} = 0.25 = 25\%$$

$$\text{Operating profit margin}_{\text{Timberland}} = \frac{\$6,250,000}{\$25,000,000} = 0.25 = 25\%$$

(2) $$\text{Net profit margin} = \frac{\text{Earnings available for common stockholders}}{\text{sales}}$$

$$\text{Net profit margin}_{\text{Pelican}} = \frac{\$3,690,000}{\$25,000,000} = 0.1476 = 14.76\%$$

$$\text{Net profit margin}_{\text{Timberland}} = \frac{\$3,450,000}{\$25,000,000} = 0.138 = 13.80\%$$

(3) $$\text{Return on total assets} = \frac{\text{Earnings available for common stockholders}}{\text{total assets}}$$

$$\text{Return on total assets}_{\text{Pelican}} = \frac{\$3,690,000}{\$10,000,000} = 0.369 = 36.9\%$$

$$\text{Return on total assets}_{\text{Timberland}} = \frac{\$3,450,000}{\$10,000,000} = 0.345 = 34.5\%$$

(4) $$\text{Return on common equity} = \frac{\text{Earnings available for common stockholders}}{\text{Common stock equity}}$$

$$\text{Return on common equity}_{\text{Pelican}} = \frac{\$3,690,000}{\$9,000,000} = 0.41 = 41.0\%$$

$$\text{Return on common equity}_{\text{Timberland}} = \frac{\$3,450,000}{\$5,000,000} = 0.69 = 69.0\%$$

Blue Nile is more profitable than Timberland, as shown by the higher operating profit margin, net profit margin, and return on assets. However, the return on equity for Timberland is higher than that of Blue Nile.

c. Even though Blue Nile is more profitable, Timberland has a higher ROE than Blue Nile due to the additional financial leverage risk. The lower profits of Timberland are due to the fact that interest expense is deducted from EBIT. Timberland has $500,000 of interest expense to Blue Nile's $100,000. Even after the tax shield from the interest tax deduction ($500,000 × 0.40 = $200,000) Timberland's profits are less than Blue Nile's by $240,000. Since Timberland has a higher relative amount of debt, the stockholders' equity is proportionally reduced resulting in the higher return to equity than that obtained by Blue Nile. The higher ROE brings with it higher levels of financial risk for Timberland equity holders.

P2-4. Financial statement analysis

a.

Zaki Industries Ratio Analysis			
	Industry Average	**Actual 2011**	**Actual 2012**
Current ratio	1.80	1.84	1.04
Quick ratio	0.70	0.78	0.38
Inventory turnover	2.50	2.59	2.33
Average collection period	37.5 days	36.5 days	57 days
Debt ratio	65%	67%	61.3%
Times interest earned	3.8	4.0	2.8
Gross profit margin	38%	40%	34%
Net profit margin	3.5%	3.6%	4.1%
Return on total assets	4.0%	4.0%	4.4%
Return on common equity	9.5%	8.0%	11.3%
Market/book ratio	1.1	1.2	1.3

b. **Liquidity:** Zaki Industries' liquidity position has deteriorated from 2011 to 2012 and is inferior to the industry average. The firm may not be able to satisfy short-term obligations as they come due.

Activity: Zaki Industries' ability to convert assets into cash has deteriorated from 2011 to 2012. Examination into the cause of the 20.5-day increase in the average collection period is warranted. Inventory turnover has also decreased for the period under review and is fair compared to industry. The firm may be holding slightly excessive inventory.

Debt: Zaki Industries' debt position has improved since 2011 and is below average. Zaki Industries' ability to service interest payments has deteriorated and is below the industry average.

Profitability: Although Zaki Industries' gross profit margin is below its industry average, indicating high cost of goods sold, the firm has a superior net profit margin in comparison to average. The firm has lower than average operating expenses. The firm has a superior return on investment and return on equity in comparison to the industry and shows an upward trend.

Market: Zaki Industries' increase in their market price relative to their book value per share indicates that the firm's performance has been interpreted as more positive in 2012 than in 2011 and it is a little higher than the industry.

Overall, the firm maintains superior profitability at the risk of illiquidity. Investigation into the management of accounts receivable and inventory is warranted.

P2-5. Integrative—complete ratio analysis

West Island Company
Ratio Analysis

Ratio	Actual 2010	Actual 2011	Actual 2012	Industry Average 2012	TS: / CS:	Time-series / Cross-sectional
Current ratio	1.40	1.55	1.67	1.85	TS:	Improving
					CS:	Fair
Quick ratio	1.00	0.92	0.88	1.05	TS:	Deteriorating
					CS:	Poor
Inventory turnover	9.52	9.21	7.89	8.60	TS:	Deteriorating
					CS:	Fair
Average collection period	45.6 days	36.9 days	29.2 days	35.5 days	TS:	Improving
					CS:	Good
Average payment period	59.3 days	61.6 days	53.0 days	46.4 days	TS:	Unstable
					CS:	Poor
Total asset turnover	0.74	0.80	0.83	0.74	TS:	Improving
					CS:	Good
Debt ratio	0.20	0.20	0.35	0.30	TS:	Increasing
					CS:	Fair
Times interest earned	8.2	7.3	6.5	8.0	TS:	Deteriorating
					CS:	Poor
Fixed payment coverage ratio	4.5	4.2	2.3	4.2	TS:	Deteriorating
					CS:	Poor
Gross profit margin	0.30	0.27	0.25	0.25	TS:	Deteriorating
					CS:	Average
Operating profit margin	0.12	0.12	0.13	0.10	TS:	Improving
					CS:	Good
Net profit margin	0.062	0.062	0.066	0.053	TS:	Stable
					CS:	Good
Return on total assets	0.045	0.050	0.055	0.040	TS:	Improving
					CS:	Good
Return on common Equity	0.061	0.067	0.085	0.066	TS:	Improving
					CS:	Good
Earnings per share (EPS)	$1.75	$2.20	$3.05	$1.50	TS:	Improving
					CS:	Good
Price/earnings (P/E)	12.0	10.5	13.0	11.2	TS:	Unstable
					CS:	Good
Market/book ratio (M/B)	1.20	1.05	1.01	1.10	TS:	Deteriorating
					CS:	Fair

Liquidity: West Island Company's overall liquidity as reflected by the current ratio and quick ratio appears to be following different trends, but is below the industry average.

Activity: The activity of accounts receivable has improved, but inventory turnover has deteriorated and is currently below the industry average. The firm's average payment period appears to have speeded up from 2010, although the firm is still paying more slowly than the average company.

Debt: The firm's debt ratios have increased from 2010 and are very close to the industry averages, indicating currently acceptable values but an undesirable trend. The firm's fixed payment coverage has declined and is well below the industry average figure, indicating a deterioration in servicing ability.

Profitability: The firm's gross profit margin, while in line with the industry average, has declined, probably due to higher cost of goods sold. The operating and net profit margins have

been stable and are also above industry averages. Both the ROA and the ROE appear to have improved slightly and are better than the industry averages. EPS made a significant increase in 2011 and 2012. The P/E ratio indicates an increasing degree of investor confidence in the firm's future earnings potential.

Market: The firm's *P/E* ratio was good in 2010 but has fell significantly in 2011 but recovered in 2012. The ratio is now above the industry average. The market to book ratio initially showed signs of weakness in 2011 and 2012. The markets interpretation of West Island's earning ability indicates a lot of uncertainty. The fluctuation in the M/B ratio also shows signs of uncertainty.

In summary, the firm needs to attend to inventory and accounts payable and should not incur added debts until its leverage and fixed-charge coverage ratios are improved. Other than these indicators, the firm appears to be doing well—especially in generating return on sales. The market seems to have some lack of confidence in the stability of West Island's future.

P2-6. DuPont system of analysis

a.

	Margin(%)	×	Turnover	=	ROA(%)	×	FL Multiple	=	ROE(%)
2012									
Jordan	4.9	×	2.34	=	11.47	×	1.85	=	21.21
Industry	4.1	×	2.15	=	8.82	×	1.64	=	14.46
2011									
Jordan	5.8	×	2.18	=	12.64	×	1.75	=	22.13
Industry	4.7	×	2.13	=	10.01	×	1.69	=	16.92
2010									
Jordan	5.9	×	2.11	=	12.45	×	1.75	=	21.79
Industry	5.4	×	2.05	=	11.07	×	1.67	=	18.49

b. **Profitability:** Industry net profit margins are decreasing; Jordan's net profit margins have fallen less.

Efficiency: Both industry's and Jordan's asset turnover have increased.

Leverage: Only Jordan shows an increase in leverage from 2011 to 2012, while the industry has had less stability. Between 2010 and 2011, leverage for the industry increased, while it decreased between 2011 and 2012.

As a result of these changes, the ROE has fallen for both Jordan and the industry, but Jordan has experienced a much smaller decline in its ROE.

c. Areas which require further analysis are profitability and debt. Since the total asset turnover is increasing and is superior to that of the industry, Jordan is generating an appropriate sales level for the given level of assets. But why is the net profit margin falling for both industry and Jordan? Has there been increased competition causing downward pressure on prices? Is the cost of raw materials, labor, or other expenses rising? A common-size income statement could be useful in determining the cause of the falling net profit margin.

Note: Some management teams attempt to magnify returns through the use of leverage to offset declining margins. This strategy is effective only within a narrow range. A high leverage strategy may actually result in a decline in stock price due to the increased risk.

■ MyFinanceLab

Further chapter-relevant problems and assignments can be found at the book's accompanying resource: MyFinanceLab. Go to www.myfinancelab.com.

■ Case

Assessing Red Sea Manufacturing's Current Financial Position

Red Sea Manufacturing Company is an integrative case study addressing financial analysis techniques. The company is a capital-intensive firm that has poor management of accounts receivable and inventory. The industry average inventory turnover can fluctuate from 10 to 100 depending on the market.

a. Ratio calculations

Financial Ratio	2012
Current ratio	$1,531,181 ÷ $616,000 = 2.5%
Quick ratio	($1,531,181 – $700,625) ÷ $616,000 = 1.3%
Inventory turnover (times)	$3,704,000 ÷ $700,625 = 5.3%
Average collection period (days)	$805,556 ÷ ($5,075,000 ÷ 365) = 58.0%
Total asset turnover (times)	$5,075,000 ÷ $3,125,000 = 1.6%
Debt ratio	$1,781,250 ÷ $3,125,000 = 57%
Times interest earned	$153,000 ÷ $93,000 = 1.6%
Gross profit margin	$1,371,000 ÷ $5,075,000 = 27%
Net profit margin	$36,000 ÷ $5,075,000 = 0.71%
Return on total assets	$36,000 ÷ $3,125,000 = 1.2%
Return on equity	$36,000 ÷ $1,343,750 = 2.7%

Historical Ratios
Red Sea Manufacturing Company

Ratio	Actual 2010	Actual 2011	Actual 2012	Industry Average
Current ratio	1.7	1.8	2.5	1.5
Quick ratio	1.0	0.9	1.3	1.2
Inventory turnover (times)	5.2	5.0	5.3	10.2
Average collection period (days)	50.7	55.8	58.0	46.0
Total asset turnover (times)	1.5	1.5	1.6	2.0
Debt ratio	45.8%	54.3%	57%	24.5%
Times interest earned	2.2	1.9	1.6	2.5
Gross profit margin	27.5%	28.0%	27.0%	26.0%
Net profit margin	1.1%	1.0%	0.71%	1.2%
Return on total assets	1.7%	1.5%	1.2%	2.4%
Return on equity	3.1%	3.3%	2.7%	3.2%
Price/earnings ratio	33.5	38.7	34.48	43.4
Market/book	1.0	1.1	0.89	1.2

b. **Liquidity:** The firm has sufficient current assets to cover current liabilities. The trend is upward and is much higher than the industry average. This is an unfavorable position, since it indicates too much inventory.

Activity: The inventory turnover is stable but much lower than the industry average. This indicates the firm is holding too much inventory. The average collection period is increasing and much higher than the industry average. These are both indicators of a problem in collecting payment.

The total asset turnover ratio is are stable but significantly lower than the industry average. This indicates that the sales volume is not sufficient for the amount of committed assets.

Debt: The debt ratio has increased and is substantially higher than the industry average. This places the company at high risk. Typically industries with heavy capital investment and higher operating risk try to minimize financial risk. Red Sea Manufacturing has positioned itself with both heavy operating and financial risk. The times-interest-earned ratio also indicates a potential debt service problem. The ratio is decreasing and is far below the industry average.

Profitability: The gross profit margin is stable and quite favorable when compared to the industry average. The net profit margin, however, is deteriorating and far below the industry average. When the gross profit margin is within expectations but the net profit margin is too low, high interest payments may be to blame. The high financial leverage has caused the low profitability.

Market: The market price of the firm's common stock shows weakness relative to both earnings and book value. This result indicates a belief by the market that Red Sea's ability to earn future profits faces more and increasing uncertainty as perceived by the market.

c. Red Sea Manufacturing clearly has a problem with its inventory level, and sales are not at an appropriate level for its capital investment. As a consequence, the firm has acquired a substantial amount of debt which, due to the high interest payments associated with the large debt burden, is depressing profitability. These problems are being picked up by investors as shown in their weak market ratios.

■ Spreadsheet Exercise

The answer to Chapter 2's Dayton Products, Inc., financial statements spreadsheet problem is located in MyFinanceLab: www.myfinancelab.com.