■ Solutions to Problems

P2-1. LG 1: Reviewing basic financial statements

Basic

Income statement: In this one-year summary of the firm's operations, Technica, Inc. showed a net profit for 2009 and the ability to pay cash dividends to its stockholders.

Balance sheet: The financial condition of Technica, Inc. at December 31, 2008 and 2009 is shown as a summary of assets and liabilities. Technica, Inc. has an excess of current assets over current liabilities, demonstrating liquidity. The firm's fixed assets represent over one-half of total assets ($270,000 of $408,300). The firm is financed by short-term debt, long-term debt, common stock, and retained earnings. It appears that it repurchased 500 shares of common stock in 2009.

Statement of retained earnings: Technica, Inc. earned a net profit of $42,900 in 2009 and paid out $20,000 in cash dividends. The reconciliation of the retained earnings account from $50,200 to $73,100 shows the net amount ($22,900) retained by the firm.

P2-2. LG 1: Financial statement account identification

Basic

Account Name	(a) Statement	(b) Type of Account
Accounts payable	BS	CL
Accounts receivable	BS	CA
Accruals	BS	CL
Accumulated depreciation	BS	FA*
Administrative expense	IS	E
Buildings	BS	FA
Cash	BS	CA
Common stock (at par)	BS	SE
Cost of goods sold	IS	E
Depreciation	IS	E
Equipment	BS	FA
General expense	IS	E
Interest expense	IS	E
Inventories	BS	CA
Land	BS	FA
Long-term debt	BS	LTD
Machinery	BS	FA
Marketable securities	BS	CA
Notes payable	BS	CL
Operating expense	IS	E
Paid-in capital in excess of par	BS	SE
Preferred stock	BS	SE
Preferred stock dividends	IS	E
Retained earnings	BS	SE
Sales revenue	IS	R
Selling expense	IS	E
Taxes	IS	E
Vehicles	BS	FA

* This is really not a fixed asset, but a charge against a fixed asset, better known as a contra-asset.

P2-3. LG 1: Income statement preparation

Intermediate

a.

Cathy Chen, CPA
Income Statement
for the Year Ended December 31, 2009

Sales revenue		$360,000
Less: Operating expenses		
Salaries	180,000	
Employment taxes and benefits	34,600	
Supplies	10,400	
Travel & entertainment	17,000	
Lease payment	32,400	
Depreciation expense	15,600	
Total operating expense		290,000
Operating profits		$ 70,000
Less: Interest expense		15,000
Net profits before taxes		$ 55,000
Less: Taxes (30%)		16,500
Net profits after taxes		$ 38,500

b. In her first year of business, Cathy Chen covered all her operating expenses and earned a net profit of $38,500 on revenues of $360,000.

P2-4. Personal finance: Income statement preparation

a.

Adam's salary	$45,000	
Arin's salary	30,000	
Interest received	500	
Dividends received	150	
Total Income		**$75,650**
Expenses		
Mortgage payments	14,000	
Utility expense	3,200	
Groceries	2,200	
Auto loan payment	3,300	
Home insurance	750	
Auto insurance	600	
Medical expenses	1,500	
Property taxes	1,659	
Income tax and social security	13,000	
Clothes and accessories	2,000	
Gas and auto repair	2,100	
Entertainment	2,000	
Total Expenses		**$46,309**

Cash Surplus or (Deficit)	**$29,341**

b. Since income exceeds expenses, the Adams have a cash surplus.

c. The cash surplus can be used for a variety of purposes. In the short-term, they may replace their car, buy better furniture, or more quickly pay off their home. Alternatively, they may purchase stocks and bonds, or increase their savings for future needs. Investments in the stock market are generally designed to increase an individual's future wealth, the purchase of bonds typically allows one to at least retain their purchasing power, while investment in savings accounts provide liquidity.

P2-5. LG 1: Calculation of EPS and retained earnings

Intermediate

a. **Earnings per share:**

Net profit before taxes	$218,000
Less: Taxes at 40%	87,200
Net profit after tax	$130,800
Less: Preferred stock dividends	32,000
Earnings available to common stockholders	$ 98,800

$$\text{Earnings per share} = \frac{\text{Earning available to common stockholders}}{\text{Total shares outstanding}} = \frac{\$98{,}800}{85{,}000} = \$1.162$$

b. **Amount to retained earnings:**

85,000 shares × $0.80 = $68,000 common stock dividends

Earnings available to common shareholders	$98,800
Less: Common stock dividends	68,000
To retained earnings	$30,800

P2-6. LG 1: Income statement preparation

Intermediate

Owen Davis Company
Balance Sheet
December 31, 2009

Assets	
Current assets:	
Cash	$ 215,000
Marketable securities	75,000
Accounts receivable	450,000
Inventories	375,000
Total current assets	$1,115,000
Gross fixed assets	
Land and buildings	$ 325,000
Machinery and equipment	560,000
Furniture and fixtures	170,000
Vehicles	25,000
Total gross fixed assets	$1,080,000
Less: Accumulated depreciation	265,000
Net fixed assets	$ 815,000

Total assets	$1,930,000

Continued

Owen Davis Company
Balance Sheet
December 31, 2009

Liabilities and stockholders' equity	
Current liabilities:	
Accounts payable	$ 220,000
Notes payable	475,000
Accruals	55,000
Total current liabilities	$ 750,000
Long-term debt	420,000
Total liabilities	$1,170,000
Stockholders' equity	
Preferred stock	$ 100,000
Common stock (at par)	90,000
Paid-in capital in excess of par	360,000
Retained earnings	210,000
Total stockholders' equity	$ 760,000
Total liabilities and stockholders' equity	$1,930,000

P2-7. LG 1: Personal finance: Balance sheet preparation

Basic

Adam and Arin Adams
Balance Sheet
December 31, 2009

Assets		**Liabilities and Net Worth**	
Cash	$ 300	Utility bills	$ 150
Checking	3,000	Medical bills	250
Savings	1,200	Credit card balance	2,000
Money market funds	1,200	**Total Current Liabilities**	$ 2,400
Total Liquid Assets	$ 5,700		
		Mortgage	100,000
IBM stock	2,000	Auto loan	8,000
Retirement funds, IRA	2,000	Personal loan	3,000
Total Investments	$ 4,000	**Total Long-term Liabilities**	$111,000
Total Real Estate	$150,000	**Total Liabilities**	$113,400
2008 Sebring	15,000	**Total Net Worth**	76,500
2007 Jeep	8,000		
Household furnishings	4,200	**Total Liabilities and Net Worth**	$189,900
Jewelry and artwork	3,000		
Total Personal Property	$ 30,200		
Total Assets	$189,900		

a. Total assets of the Adams family must equal its debt plus the extent to which it has either experienced a gain in value or paid the cost of an asset (its net worth).

b. Total assets of the Adams family must equal its debt plus the extent to which it has either experienced a gain in value or paid the cost of an asset (its net worth).

c. Working Capital = Total Liquid Assets – Total Current Liabilities
Working Capital = $5,700 – $2,400 = $3,300

P2-8. LG 1: Impact of net income on a firm's balance sheet

Basic

Account		Beginning Value	Change	Ending Value
a.	Marketable securities	$ 35,000	+$1,365,000	$1,400,000
	Retained earnings	$1,575,000	+$1,365,000	$2,940,000
b.	Long-term debt	$2,700,000	–$ 865,000	$1,835,000
	Retained earnings	$1,575,000	+$ 865,000	$2,440,000
c.	Buildings	$1,600,000	+$ 865,000	$2,465,000
	Retained earnings	$1,575,000	+$ 865,000	$2,440,000
d.	No net change in any accounts			

P2-9 LG 1: Initial sale price of common stock

Basic

$$\text{Initial sales price} = \frac{\text{(Par value of common stock + Paid in capital in excess of par)}}{\text{Number of common shares outstanding}}$$

$$\text{Initial sales price} = \frac{\$225{,}000 + \$2{,}625{,}000}{300{,}000} = \$9.50 \text{ per share}$$

P2-10. LG 1: Statement of retained earnings

Intermediate

a. Cash dividends paid on common stock = Net profits after taxes – preferred dividends – change in retained earnings
= $377,000 – $47,000 – (1,048,000 – $928,000)
= $210,000

Hayes Enterprises
Statement of Retained Earnings
for the Year Ended December 31, 2009

Retained earnings balance (January 1, 2009)	$ 928,000
Plus: Net profits after taxes (for 2009)	377,000
Less: Cash dividends (paid during 2009)	
Preferred stock	(47,000)
Common stock	(210,000)

Retained earnings (December 31, 2009)	$1,048,000

b. $$\text{Earnings per share} = \frac{\text{Net profit after tax} - \text{Preferred dividends (EACS}^*)}{\text{Number of common shares outstanding}}$$

$$\text{Earnings per share} = \frac{\$377{,}000 - \$47{,}000}{140{,}000} = \$2.36$$

*Earnings available to common stockholders

c. $$\text{Cash dividend per share} = \frac{\text{Total cash dividend}}{\text{\# shares}}$$

$$\text{Cash dividend per share} = \frac{\$210{,}000 \text{ (from Part (a))}}{140{,}000} = \$1.50$$

P2-11. LG 2, 3, 4, 5: Ratio comparisons

Basic

a. The four companies are in very different industries. The operating characteristics of firms across different industries vary significantly resulting in very different ratio values.

b. The explanation for the lower current and quick ratios most likely rests on the fact that these two industries operate primarily on a cash basis. Their accounts receivable balances are going to be much lower than for the other two companies.

c. High level of debt can be maintained if the firm has a large, predictable, and steady cash flow. Utilities tend to meet these cash flow requirements. The software firm will have very uncertain and changing cash flow. The software industry is subject to greater competition resulting in more volatile cash flow.

d. Although the software industry has potentially high profits and investment return performance, it also has a large amount of uncertainty associated with the profits. Also, by placing all of the money in one stock, the benefits of reduced risk associated with diversification are lost.

P2-12. LG 3: Liquidity management

Basic

a.

	2006	**2007**	**2008**	**2009**
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.

P2-13. LG 3: Personal finance: Liquidity ratio

a. $$\text{Liquity ratio} = \frac{\text{Total liquid assets}}{\text{Total current debts}} = \frac{\$3{,}200 + \$1{,}000 + \$800}{\$1{,}200 + \$900} = \frac{\$5{,}000}{\$2{,}100} = 2.38$$

b. Since Josh's liquidity ratio exceeds 1.8, Josh has more liquidity than his friends.

P2-14. LG 3: Inventory management

Basic

a.

Sales	\$4,000,000	100%
Less: Gross profit	\$1,600,000	40%
Cost of goods sold	\$2,400,000	60%

$$\text{Average inventory} = \frac{\$400{,}000 + \$800{,}000 + \$1{,}200{,}000 + \$200{,}000}{4} = \$650{,}000$$

$$\text{Inventory turnover} = \frac{\text{Cost of goods sold}}{\text{Average inventory}} = \frac{\$2{,}400{,}000}{\$650{,}000} = 3.69\,\text{times}$$

$$\text{Average age of inventory} = \frac{365}{3.69} = 98.9\,\text{days}$$

b. The Wilkins Manufacturing inventory turnover ratio significantly exceeds the industry. Although this may represent efficient inventory management, it may also represent low inventory levels resulting in stockouts.

P2-15. LG 3: Accounts receivable management

Basic

a. Average collection period = accounts receivable ÷ average sales per day

$$\text{Average collection period} = \frac{\$300{,}000}{\frac{\$2{,}400{,}000}{365}} = \frac{\$300{,}000}{6{,}575.34} = 45.62\,\text{days}$$

Since the average age of receivables is over 15 days beyond the net date, attention should be directed to accounts receivable management.

b. This may explain the lower turnover and higher average collection period. The December accounts receivable balance of \$300,000 may not be a good measure of the average accounts receivable, thereby causing the calculated average collection period to be overstated. It also suggests the November figure (0–30 days overdue) is not a cause for great concern. However, 13% of all accounts receivable (those arising in July, August and September) are sixty days or more overdue and may be a sign of poor receivables management.

P2-16. LG 4: Debt analysis

Basic

Ratio	Definition	Calculation	Creek	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 Creek 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.

P2-17. LG 5: Common-size statement analysis

Intermediate

Creek Enterprises
Common-Size Income Statement
for the years Ended December 31, 2008 and 2009

		2009		2008
Sales revenue		100.0%		100.0%
Less: Cost of goods sold		70.0%		65.9%
Gross profits		30.0%		34.1%
Less: Operating expenses:				
Selling	10.0%		12.7%	
General	6.0%		6.3%	
Lease expense	0.7%		0.6%	
Depreciation	3.3%	20.0%	3.6%	23.2%
Operating profits		10.0%		10.9%
Less: Interest expense		3.3%		1.5%
Net Profits before taxes		6.7%		9.4%
Less: Taxes		2.7%		3.8%
Net profits after taxes		4.0%		5.6%

Sales have declined and cost of goods sold has increased as a percentage of sales, probably due to a loss of productive efficiency. Operating expenses have decreased as a percent of sales; this appears favorable unless this decline has contributed toward the fall in sales. The level of interest as a percentage of sales has increased significantly; this is verified by the high debt measures in Problem 15, and suggests that the firm has too much debt.

Further analysis should be directed at the increased cost of goods sold and the high debt level.

P2-18. LG 6: Ratio proficiency

Basic

a. Gross profit = sales × gross profit margin
Gross profit = $\$40{,}000{,}000 \times 0.8 = \$32{,}000{,}000$

b. Cost of goods sold = sales − gross profit
Cost of goods sold = $\$40{,}000{,}000 - \$32{,}000{,}000 = \$8{,}000{,}000$

c. Operating profit = sales × operating profit margin
Operating profit = $\$40{,}000{,}000 \times 0.35 = \$14{,}000{,}000$

d. Operating expenses = gross profit − operating profit
Operating expenses = $\$32{,}000{,}000 - \$14{,}000{,}000 = \$18{,}000{,}000$

e. Earnings available for common shareholders
= sales × net profit margin = $\$40{,}000{,}000 \times 0.08 = \$3{,}200{,}000$

f. $$\text{Total assets} = \frac{\text{sales}}{\text{total asset turnover}} = \frac{\$40{,}000{,}000}{2} = \$20{,}000{,}000$$

g. $$\text{Total common equity} = \frac{\text{earnings available for common shareholders}}{\text{ROE}}$$

$$\text{Total common equity} = \frac{\$3{,}200{,}000}{0.20} = \$16{,}000{,}000$$

h. $$\text{Accounts receivable} = \text{average collection period} \times \frac{\text{sales}}{365}$$

$$\text{Accounts receivable} = 62.2 \text{ days} \times \frac{\$40{,}000{,}000}{365} = 62.2 \times \$109{,}589.041 = \$6{,}816{,}438.36$$

P2-19. LG 6: Cross-sectional ratio analysis

Intermediate

a.

Fox Manufacturing Company
Ratio Analysis

	Industry Average 2009	Actual 2009
Current ratio	2.35	1.84
Quick ratio	0.87	0.75
Inventory turnover	4.55 times	5.61 times
Average collection period	35.8 days	20.5 days
Total asset turnover	1.09	1.47
Debt ratio	0.30	0.55
Times interest earned	12.3	8.0
Gross profit margin	0.202	0.233
Operating profit margin	0.135	0.133
Net profit margin	0.091	0.072
Return on total assets	0.099	0.105
Return on common equity	0.167	0.234

Earnings per share	$3.10	$2.15

Liquidity: The current and quick ratios show a weaker position relative to the industry average.

Activity: All activity ratios indicate a faster turnover of assets compared to the industry. Further analysis is necessary to determine whether the firm is in a weaker or stronger position than the industry. A higher inventory turnover ratio may indicate low inventory, resulting in stockouts and lost sales. A shorter average collection period may indicate extremely efficient receivables management, an overly zealous credit department, or credit terms that prohibit growth in sales.

Debt: The firm uses more debt than the average firm, resulting in higher interest obligations that could reduce its ability to meet other financial obligations.

Profitability: The firm has a higher gross profit margin than the industry, indicating either a higher sales price or a lower cost of goods sold. The operating profit margin is in line with the industry, but the net profit margin is lower than industry, an indication that expenses other than cost of goods sold are higher than the industry. Most likely, the damaging factor is high interest expenses due to a greater than average amount of debt. The increased leverage, however, magnifies the return the owners receive, as evidenced by the superior ROE.

b. Fox Manufacturing Company needs improvement in its liquidity ratios and possibly a reduction in its total liabilities. The firm is more highly leveraged than the average firm in its industry and, therefore, has more financial risk. The profitability of the firm is lower than average but is enhanced by the use of debt in the capital structure, resulting in a superior ROE.

P2-20. LG 6: Financial statement analysis

Intermediate

a.

Zach Industries
Ratio Analysis

	Industry Average	**Actual 2008**	**Actual 2009**
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:** Zach Industries' liquidity position has deteriorated from 2008 to 2009 and is inferior to the industry average. The firm may not be able to satisfy short-term obligations as they come due.

Activity: Zach Industries' ability to convert assets into cash has deteriorated from 2008 to 2009. 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: Zach Industries' debt position has improved since 2008 and is below average. Zach Industries' ability to service interest payments has deteriorated and is below the industry average.

Profitability: Although Zach 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: Zach 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 2009 than in 2008 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.

P2-21. LG 6: DuPont system of analysis

Intermediate

a.

	Margin (%)	×	Turnover	=	ROA (%)	×	FL Multiple	=	ROE (%)
2009									
Johnson	4.9	×	2.34	=	11.47	×	1.85	=	21.21
Industry	4.1	×	2.15	=	8.82	×	1.64	=	14.46
2008									
Johnson	5.8	×	2.18	=	12.64	×	1.75	=	22.13
Industry	4.7	×	2.13	=	10.01	×	1.69	=	16.92
2007									
Johnson	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; Johnson's net profit margins have fallen less.

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

Leverage: Only Johnson shows an increase in leverage from 2008 to 2009, while the industry has had less stability. Between 2007 and 2008, leverage for the industry increased, while it decreased between 2008 and 2009.

As a result of these changes, the ROE has fallen for both Johnson and the industry, but Johnson 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, Johnson is generating an appropriate sales level for the given level of assets. But why is the net profit margin falling for both industry and Johnson? 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.

P2-22. LG 1: Ethics problem

Intermediate

This is a perfect example of a conflict of interest on the part of the auditor. In the past, there has been very little incentive to carefully scrutinize the company's accounting or to challenge a company's accounting assumptions. Why "bite the hand that feeds you"? Audit practices at Arthur Andersen, the firm that audited Enron and several other headline-grabbing companies, drove Andersen out of business. On their part, auditors claim to have been misled by corporate audit clients, and note that they are unable to check all accounting transactions in an audit engagement.

■ Case

Assessing Martin Manufacturing's Current Financial Position

Martin 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.

1. **Ratio calculations**

Financial Ratio	2009
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
Martin Manufacturing Company

Ratio	Actual 2007	Actual 2008	Actual 2009	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

2. **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. Martin 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 Martin's ability to earn future profits faces more and increasing uncertainty as perceived by the market.

3. Martin 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, Inc., financial statements spreadsheet problem is located in the Instructor's Resource Center at *www.prenhall.com/irc*.

■ A Note on Web Exercises

A series of chapter-relevant assignments requiring Internet access can be found at the book's Companion Website at *http://www.prenhall.com/gitman*. In the course of completing the assignments students access information about a firm, its industry, and the macro economy, and conduct analyses consistent with those found in each respective chapter.