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Book Values versus Market Values Under standard accounting rules, it is possible for a company's liabilities to exceed its assets. When this occurs, the owners' equity is negative. Can this happen with market values? Why or why not? page 34

6. **Cash Flow from Assets** Suppose a company's cash flow from assets was negative for a particular period. Is this necessarily a good sign or a bad sign?
7. **Operating Cash Flow** Suppose a company's operating cash flow was negative for several years running. Is this necessarily a good sign or a bad sign?
8. **Net Working Capital and Capital Spending** Could a company's change in net working capital be negative in a given year? (*Hint: Yes.*) Explain how this might come about. What about net capital spending?
9. **Cash Flow to Stockholders and Creditors** Could a company's cash flow to stockholders be negative in a given year? (*Hint: Yes.*) Explain how this might come about. What about cash flow to creditors?
10. **Firm Values** Referring back to the Microsoft example used at the beginning of the chapter, note that we suggested that Microsoft's stockholders probably didn't suffer as a result of the reported loss. What do you think was the basis for our conclusion?

QUESTIONS AND PROBLEMS



Basic (Questions 1–10)

1. **Building a Balance Sheet** Burnett, Inc., has current assets of \$6,800, net fixed assets of \$29,400, current liabilities of \$5,400, and long-term debt of \$13,100. What is the value of the shareholders' equity account for this firm? How much is net working capital?
2. **Building an Income Statement** Bradds, Inc., has sales of \$528,600, costs of \$264,400, depreciation expense of \$41,700, interest expense of \$20,700, and a tax rate of 35 percent. What is the net income for the firm? Suppose the company paid out \$27,000 in cash dividends. What is the addition to retained earnings?
3. **Market Values and Book Values** Klingon Cruisers, Inc., purchased new cloaking machinery three years ago for \$7 million. The machinery can be sold to the Romulans today for \$5.3 million. Klingon's current balance sheet shows net fixed assets of \$3.9 million, current liabilities of \$1.075 million, and net working capital of \$320,000. If all the current accounts were liquidated today, the company would receive \$410,000 cash. What is the book value of Klingon's total assets today? What is the sum of the market value of NWC and market value of assets?
4. **Calculating Taxes** The Alexander Co. had \$328,500 in taxable income. Using the rates from Table 2.3 in the chapter, calculate the company's income taxes. What is the average tax rate? What is the marginal tax rate?
5. **Calculating OCF** Timsung, Inc., has sales of \$30,700, costs of \$11,100, depreciation expense of \$2,100, and interest expense of \$1,140. If the tax rate is 40 percent, what is the operating cash flow, or OCF?
6. **Calculating Net Capital Spending** Busch Driving School's 2016 balance sheet showed net fixed assets of \$3.75 million, and the 2017 balance sheet showed net fixed assets of \$4.45 million. The company's 2017 income statement showed a depreciation expense of \$395,000. What was the company's net capital spending for 2017?
7. **Building a Balance Sheet** The following table presents the long-term liabilities and stockholders' equity of Information Control Corp. one year ago:

Long-term debt	\$37,000,000
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Product Sales Do you think the company would have suffered the same fate if its product had been less popular? Why or why not? page 75

Cash Flow The Grandmother Calendar Company clearly had a cash flow problem. In the context of the cash flow analysis we developed in Chapter 2, what was the impact of customers not paying until orders were shipped?

Corporate Borrowing If the firm was so successful at selling, why wouldn't a bank or some other lender step in and provide it with the cash it needed to continue?

Cash Flow Which is the biggest culprit here: too many orders, too little cash, or too little production capacity?

Cash Flow What are some of the actions that a small company like The Grandmother Calendar Company can take (besides expansion of capacity) if it finds itself in a situation in which growth in sales outstrips production?

Comparing ROE and ROA Both ROE and ROA measure profitability. Which one is more useful for comparing two companies? Why?

Ratio Analysis Consider the ratio EBITDA/Assets. What does this ratio tell us? Why might it be more useful than ROA in comparing two companies?

QUESTIONS AND PROBLEMS



Basic (Questions 1–10)

- DuPont Identity** If Harley, Inc., has an equity multiplier of 1.35, total asset turnover of 2.15, and a profit margin of 6.08 percent, what is its ROE?
- Equity Multiplier and Return on Equity** Quinn Company has a debt–equity ratio of .75. Return on assets is 8.6 percent, and total equity is \$975,000. What is the equity multiplier? Return on equity? Net income?
- Using the DuPont Identity** Y3K, Inc., has sales of \$6,180, total assets of \$3,680, and a debt–equity ratio of .45. If its return on equity is 15 percent, what is its net income?



- EFN** The most recent financial statements for Cornell, Inc., are shown here:

INCOME STATEMENT		BALANCE SHEET			
Sales	\$43,000	Assets	\$104,500	Debt	\$ 28,200

Costs	<u>30,200</u>		Equity	<u>76,300</u>
Taxable income	\$12,800	Total	<u>\$104,500</u>	Total
Taxes (34%)	<u>4,352</u>			<u>\$104,500</u>
Net income	<u>\$ 8,448</u>			

Assets and costs are proportional to sales. Debt and equity are not. A dividend of \$2,600 was paid, and the company wishes to maintain a constant payout ratio. Next year's sales are projected to be \$50,310. What is the external financing needed?

5. **Sales and Growth** The most recent financial statements for Weyland Co. are shown here:

INCOME STATEMENT		BALANCE SHEET			
Sales	\$67,400	Current assets	\$ 19,000	Long term debt	\$ 51,000
Costs	<u>39,600</u>	Fixed assets	<u>141,000</u>	Equity	<u>109,000</u>
Taxable income	\$27,800	Total	<u>\$160,000</u>	Total	<u>\$160,000</u>
Taxes (34%)	<u>9,452</u>				
Net income	<u>\$18,348</u>				

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Assets and costs are proportional to sales. The company maintains a constant 30 percent dividend payout ratio and a constant debt–equity ratio. What is the maximum increase in sales that can be sustained assuming no new equity is issued?

page 76

6. **Sustainable Growth** If the SGS Corp. has an ROE of 14.5 percent and a payout ratio of 25 percent, what is its sustainable growth rate?

7. **Sustainable Growth** Assuming the following ratios are constant, what is the sustainable growth rate?

Total asset turnover = 3.20

Profit margin = 7.4%

Equity multiplier = 1.45

Payout ratio = 60%

8. **Calculating EFN** The most recent financial statements for Incredible Edibles, Inc., are shown here (assuming no income taxes):

INCOME STATEMENT		BALANCE SHEET			
Sales	\$12,100	Assets	\$28,300	Debt	\$ 7,400
Costs	<u>8,760</u>			Equity	<u>20,900</u>
Net income	<u>\$ 3,340</u>	Total	<u>\$28,300</u>	Total	<u>\$28,300</u>

Assets and costs are proportional to sales. Debt and equity are not. No dividends are paid. Next year's sales are projected to be \$14,399. What is the external financing needed?

9. **External Funds Needed** Cheryl Colby, CFO of Charming Florist Ltd., has created the firm's pro forma balance sheet for the next fiscal year. Sales are projected to grow by 15 percent to \$211.6 million. Current assets, fixed assets, and short-term debt are 20 percent, 90 percent, and 15 percent of sales, respectively. The company pays out 40 percent of its net income in dividends. The company currently has \$32 million of long-term debt, and \$16 million in common stock par value. The profit margin is 10 percent.
- Construct the current balance sheet for the firm using the projected sales figure.
 - Based on the sales growth forecast, how much does the company need in external funds for the upcoming fiscal year?
 - Construct the firm's pro forma balance sheet for the next fiscal year and confirm the external funds needed that you calculated in part (b).
10. **Sustainable Growth Rate** The Dent Company has an ROE of 13.15 percent and a payout ratio of 30 percent.
- What is the company's sustainable growth rate?
 - Can the company's actual growth rate be different from its sustainable growth rate? Why or why not?
 - How can the company increase its sustainable growth rate?

Intermediate (Questions 11–23)

11. **Return on Equity** Firm A and Firm B have debt/total asset ratios of 35 percent and 30 percent and returns on total assets of 8 percent and 9 percent, respectively. Which firm has a greater return on equity?



- 12. Ratios and Foreign Companies** Prince Albert Canning PLC had a net loss of £17,218 on sales of £153,875. What was the company's profit margin? Does the fact that these figures are quoted in a foreign currency make any difference? Why? In dollars, sales were \$223,180. What was the net loss in dollars?
- 13. External Funds Needed** The Optical Scam Company has forecast a sales growth rate of 18 percent for next year. The current financial statements are shown below. Current assets, fixed assets, and short-term debt are proportional to sales.