

- 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 Fannie Mae example used at the beginning of the chapter, note that we suggested that Fannie Mae'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

- 1. Building a Balance Sheet** Brees, Inc., has current assets of \$7,500, net fixed assets of \$28,900, current liabilities of \$5,900, and long-term debt of \$18,700. What is the value of the shareholders' equity account for this firm? How much is net working capital?
- 2. Building an Income Statement** Tyler, Inc., has sales of \$753,000, costs of \$308,000, depreciation expense of \$46,000, interest expense of \$21,500, and a tax rate of 35 percent. What is the net income for the firm? Suppose the company paid out \$67,000 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 \$5.2 million. Klingon's current balance sheet shows net fixed assets of \$4.5 million, current liabilities of \$1.8 million, and net working capital of \$750,000. If all the current assets were liquidated today, the company would receive \$2.7 million cash. What is the book value of Klingon's assets today? What is the market value?
- 4. Calculating Taxes** The Conard Co. had \$285,000 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** Williams, Inc., has sales of \$25,300, costs of \$9,100, depreciation expense of \$1,700, and interest expense of \$950. If the tax rate is 40 percent, what is the operating cash flow, or OCF?
- 6. Calculating Net Capital Spending** Martin Driving School's 2009 balance sheet showed net fixed assets of \$4.7 million, and the 2010 balance sheet showed net fixed assets of \$5.3 million. The company's 2010 income statement showed a depreciation expense of \$760,000. What was the company's net capital spending for 2010?
- 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	\$35,000,000
Preferred stock	4,000,000
Common stock (\$1 par value)	11,000,000
Capital surplus	26,000,000
Accumulated retained earnings	75,000,000

During the past year, Information Control issued 8 million shares of new stock at a total price of \$29 million, and issued \$6 million in new long-term debt. The company generated \$7 million in net income and paid \$2.5 million in dividends. Construct the current balance sheet reflecting the changes that occurred at Information Control Corp. during the year.

 **connect**
Basic
(Questions 1–10)



- 8. Cash Flow to Creditors** The 2009 balance sheet of Maria's Tennis Shop, Inc., showed long-term debt of \$2.4 million, and the 2010 balance sheet showed long-term debt of \$2.5 million. The 2010 income statement showed an interest expense of \$195,000. What was the firm's cash flow to creditors during 2010?
- 9. Cash Flow to Stockholders** The 2009 balance sheet of Maria's Tennis Shop, Inc., showed \$730,000 in the common stock account and \$6.2 million in the additional paid-in surplus account. The 2010 balance sheet showed \$775,000 and \$6.9 million in the same two accounts, respectively. If the company paid out \$400,000 in cash dividends during 2010, what was the cash flow to stockholders for the year?
- 10. Calculating Total Cash Flows** Given the information for Maria's Tennis Shop, Inc., in the previous two problems, suppose you also know that the firm's net capital spending for 2010 was \$810,000, and that the firm reduced its net working capital investment by \$85,000. What was the firm's 2010 operating cash flow, or OCF?
- 11. Cash Flows** Ritter Corporation's accountants prepared the following financial statements for year-end 2010.

Intermediate
(Questions 11–25)

RITTER CORPORATION Income Statement 2010	
Revenue	\$780
Expenses	620
Depreciation	<u>50</u>
EBT	\$110
Tax	<u>39</u>
Net income	\$ 71
Dividends	\$ 22

RITTER CORPORATION Balance Sheets December 31		
	2009	2010
Assets		
Cash	\$ 38	\$ 45
Other current assets	143	140
Net fixed assets	<u>320</u>	<u>408</u>
Total assets	\$501	\$593
Liabilities and Equity		
Accounts payable	\$140	\$143
Long-term debt	0	40
Stockholders' equity	<u>361</u>	<u>410</u>
Total liabilities and equity	\$501	\$593

- Explain the change in cash during the year 2010.
- Determine the change in net working capital in 2010.
- Determine the cash flow generated by the firm's assets during the year 2010.

- 12. Cash Flow Identity** Freeman, Inc., reported the following financial statements for the last two years. Construct the cash flow identity for the company. Explain what each number means.

2010 INCOME STATEMENT	
Sales	\$565,200
Cost of goods sold	274,025
Selling & administrative	124,733
Depreciation	54,576
EBIT	\$111,866
Interest	19,296
EBT	\$ 92,570
Taxes	48,137
Net income	\$ 44,433
Dividends	\$ 9,600
Addition to retained earnings	\$ 34,833

Freeman, Inc. Balance Sheet as of December 31, 2009			
Cash	\$ 13,320	Accounts payable	\$ 9,504
Accounts receivable	18,994	Notes payable	14,508
Inventory	13,794	Current liabilities	\$ 24,012
Current assets	\$ 46,108	Long-term debt	\$136,800
Net fixed assets	\$344,426	Owners' equity	\$229,722
Total assets	\$390,534	Total liabilities and owners' equity	\$390,534

Freeman, Inc. Balance Sheet as of December 31, 2010			
Cash	\$ 14,306	Accounts payable	\$ 10,512
Accounts receivable	21,099	Notes payable	16,466
Inventory	22,754	Current liabilities	\$ 26,978
Current assets	\$ 58,159	Long-term debt	\$152,000
Net fixed assets	\$406,311	Owners' equity	\$285,492
Total assets	\$464,470	Total liabilities and owners' equity	\$464,470

- 13. Financial Cash Flows** The Stencil Corporation provided the following current information:

Proceeds from long-term borrowing	\$12,000
Proceeds from the sale of common stock	3,000
Purchases of fixed assets	15,000
Purchases of inventories	2,100
Payment of dividends	6,000

Determine the cash flows from the firm and the cash flows to investors of the firm.



14. Building an Income Statement During the year, the Senbet Discount Tire Company had gross sales of \$870,000. The firm's cost of goods sold and selling expenses were \$280,000 and \$155,000, respectively. Senbet also had notes payable of \$650,000. These notes carried an interest rate of 6 percent. Depreciation was \$86,000. Senbet's tax rate was 35 percent.

- What was Senbet's net income?
- What was Senbet's operating cash flow?

15. Calculating Total Cash Flows Schwert Corp. shows the following information on its 2010 income statement: sales = \$193,000; costs = \$96,500; other expenses = \$5,100; depreciation expense = \$13,800; interest expense = \$10,400; taxes = \$23,520; dividends = \$12,500. In addition, you're told that the firm issued \$6,000 in new equity during 2010, and redeemed \$7,500 in outstanding long-term debt.

- What was the 2010 operating cash flow?
- What was the 2010 cash flow to creditors?
- What was the 2010 cash flow to stockholders?
- If net fixed assets increased by \$28,000 during the year, what was the addition to NWC?

16. Using Income Statements Given the following information for O'Hara Marine Co., calculate the depreciation expense: sales = \$43,000; costs = \$26,000; addition to retained earnings = \$5,600; dividends paid = \$1,300; interest expense = \$1,900; tax rate = 35 percent.



17. Preparing a Balance Sheet Prepare a 2010 balance sheet for Jarrow Corp. based on the following information: cash = \$175,000; patents and copyrights = \$730,000; accounts payable = \$435,000; accounts receivable = \$240,000; tangible net fixed assets = \$3,650,000; inventory = \$405,000; notes payable = \$160,000; accumulated retained earnings = \$1,980,000; long-term debt = \$2,140,000.

18. Residual Claims Huang, Inc., is obligated to pay its creditors \$12,500 very soon.

- What is the market value of the shareholders' equity if assets have a market value of \$15,100?
- What if assets equal \$10,200?

19. Marginal versus Average Tax Rates (Refer to Table 2.3.) Corporation Growth has \$86,000 in taxable income, and Corporation Income has \$8,600,000 in taxable income.

- What is the tax bill for each firm?
- Suppose both firms have identified a new project that will increase taxable income by \$10,000. How much in additional taxes will each firm pay? Why is this amount the same?

20. Net Income and OCF During 2010, Raines Umbrella Corp. had sales of \$835,000. Cost of goods sold, administrative and selling expenses, and depreciation expenses were \$620,000, \$120,000, and \$85,000, respectively. In addition, the company had an interest expense of \$68,000 and a tax rate of 35 percent. (Ignore any tax loss carryback or carryforward provisions.)

- What was Raines's net income for 2010?
- What was its operating cash flow?
- Explain your results in (a) and (b).

21. Accounting Values versus Cash Flows In the previous problem, suppose Raines Umbrella Corp. paid out \$45,000 in cash dividends. Is this possible? If spending on net fixed assets and net working capital was zero, and if no new stock was issued during the year, what was the change in the firm's long-term debt account?

22. Calculating Cash Flows Cusic Industries had the following operating results for 2010; sales = \$25,700; cost of goods sold = \$18,400; depreciation expense = \$3,450; interest expense = \$790; dividends paid = \$1,100. At the beginning of the year, net fixed assets were \$19,280, current

assets were \$5,100, and current liabilities were \$3,400. At the end of the year, net fixed assets were \$23,650, current assets were \$5,830, and current liabilities were \$3,580. The tax rate for 2010 was 40 percent.

- What was net income for 2010?
- What was the operating cash flow for 2010?
- What was the cash flow from assets for 2010? Is this possible? Explain.
- If no new debt was issued during the year, what was the cash flow to creditors? What was the cash flow to stockholders? Explain and interpret the positive and negative signs of your answers in (a) through (d).

23. Calculating Cash Flows Consider the following abbreviated financial statements for Weston Enterprises:



WESTON ENTERPRISES 2009 and 2010 Partial Balance Sheets					
Assets			Liabilities and Owners' Equity		
	2009	2010		2009	2010
Current assets	\$ 740	\$ 795	Current liabilities	\$ 330	\$ 360
Net fixed assets	3,600	3,800	Long-term debt	2,000	2,150

WESTON ENTERPRISES 2010 Income Statement	
Sales	\$10,900
Costs	4,680
Depreciation	930
Interest paid	390

- What was owners' equity for 2009 and 2010?
- What was the change in net working capital for 2010?
- In 2010, Weston Enterprises purchased \$1,900 in new fixed assets. How much in fixed assets did Weston Enterprises sell? What was the cash flow from assets for the year? (The tax rate is 35 percent.)
- During 2010, Weston Enterprises raised \$440 in new long-term debt. How much long-term debt must Weston Enterprises have paid off during the year? What was the cash flow to creditors?

Use the following information for Ingersoll, Inc., for Problems 24 and 25 (assume the tax rate is 35 percent):

	2009	2010
Sales	\$ 26,115	\$ 28,030
Depreciation	3,750	3,755
Cost of goods sold	8,985	10,200
Other expenses	2,130	1,780
Interest	1,345	2,010
Cash	13,695	14,010
Accounts receivable	18,130	20,425
Short-term notes payable	2,645	2,485
Long-term debt	45,865	53,510
Net fixed assets	114,850	117,590
Accounts payable	14,885	13,950
Inventory	32,235	33,125
Dividends	3,184	3,505

Challenge
(Questions 26–28)

- 24. Financial Statements** Draw up an income statement and balance sheet for this company for 2009 and 2010.
- 25. Calculating Cash Flow** For 2010, calculate the cash flow from assets, cash flow to creditors, and cash flow to stockholders.
- 26. Cash Flows** You are researching Time Manufacturing and have found the following accounting statement of cash flows for the most recent year. You also know that the company paid \$231 million in current taxes and had an interest expense of \$120 million. Use the accounting statement of cash flows to construct the financial statement of cash flows.

TIME MANUFACTURING Statement of Cash Flows (in \$ millions)	
Operations	
Net income	\$401
Depreciation	221
Deferred taxes	43
Changes in assets and liabilities	
Accounts receivable	– 65
Inventories	51
Accounts payable	41
Accrued expenses	– 21
Other	5
Total cash flow from operations	<u>\$676</u>
Investing activities	
Acquisition of fixed assets	–\$415
Sale of fixed assets	53
Total cash flow from investing activities	<u>–\$362</u>
Financing activities	
Retirement of long-term debt	–\$240
Proceeds from long-term debt sales	131
Change in notes payable	12
Dividends	– 198
Repurchase of stock	– 32
Proceeds from new stock issue	62
Total cash flow from financing activities	<u>–\$265</u>
Change in cash (on balance sheet)	<u>\$ 49</u>

- 27. Net Fixed Assets and Depreciation** On the balance sheet, the net fixed assets (NFA) account is equal to the gross fixed assets (FA) account, which records the acquisition cost of fixed assets, minus the accumulated depreciation (AD) account, which records the total depreciation taken by the firm against its fixed assets. Using the fact that $NFA = FA - AD$, show that the expression given in the chapter for net capital spending, $NFA_{end} - NFA_{beg} + D$ (where D is the depreciation expense during the year), is equivalent to $FA_{end} - FA_{beg}$.
- 28. Tax Rates** Refer to the corporate marginal tax rate information in Table 2.3.
- a. Why do you think the marginal tax rate jumps up from 34 percent to 39 percent at a taxable income of \$100,001, and then falls back to a 34 percent marginal rate at a taxable income of \$335,001?

- b. Compute the average tax rate for a corporation with exactly \$335,001 in taxable income. Does this confirm your explanation in part (a)? What is the average tax rate for a corporation with exactly \$18,333,334? Is the same thing happening here?
- c. The 39 percent and 38 percent tax rates both represent what is called a tax “bubble.” Suppose the government wanted to lower the upper threshold of the 39 percent marginal tax bracket from \$335,000 to \$200,000. What would the new 39 percent bubble rate have to be?

WHAT'S ON THE WEB?

1. **Change in Net Working Capital** Find the most recent abbreviated balance sheets for General Dynamics at finance.yahoo.com. Enter the ticker symbol “GD” and follow the “Balance Sheet” link. Using the two most recent balance sheets, calculate the change in net working capital. What does this number mean?
2. **Book Values versus Market Values** The home page for Coca-Cola Company can be found at www.coca-cola.com. Locate the most recent annual report, which contains a balance sheet for the company. What is the book value of equity for Coca-Cola? The market value of a company is the number of shares of stock outstanding times the price per share. This information can be found at finance.yahoo.com using the ticker symbol for Coca-Cola (KO). What is the market value of equity? Which number is more relevant for shareholders?
3. **Cash Flows to Stockholders and Creditors** Cooper Tire and Rubber Company provides financial information for investors on its Web site at www.coopertires.com. Follow the “Investors” link and find the most recent annual report. Using the consolidated statements of cash flows, calculate the cash flow to stockholders and the cash flow to creditors.



CLOSING CASE

CASH FLOWS AT EAST COAST YACHTS

Because of the dramatic growth at East Coast Yachts, Larissa decided that the company should be reorganized as a corporation (see our Chapter 1 *Closing Case* for more detail). Time has passed and, today, the company is publicly traded under the ticker symbol “ECY”.

Dan Ervin was recently hired by East Coast Yachts to assist the company with its short-term financial planning and also to evaluate the company’s financial performance. Dan graduated from college five years ago with a finance degree, and he has been employed in the treasury department of a Fortune 500 company since then.

The company’s past growth has been somewhat hectic, in part due to poor planning. In anticipation of future growth, Larissa has asked Dan to analyze the company’s cash flows. The company’s financial statements are prepared by an outside auditor. Below you will find the most recent income statement and the balance sheets for the past two years.

EAST COAST YACHTS 2008 Income Statement	
Sales	\$617,760,000
Cost of goods sold	435,360,000
Selling, general, and administrative	73,824,000
Depreciation	20,160,000
EBIT	<u>\$ 88,416,000</u>
Interest expense	11,112,000
EBT	<u>\$ 77,304,000</u>
Taxes	30,921,600
Net income	<u>\$ 46,382,400</u>
Dividends	\$ 17,550,960
Retained earnings	\$ 28,831,440

EAST COAST YACHTS Balance Sheet					
	2009	2010		2009	2010
Current assets			Current liabilities		
Cash and equivalents	\$ 10,752,000	\$ 11,232,000	Accounts payable	\$ 23,701,440	\$ 24,546,000
Accounts receivable	19,116,000	20,208,000	Notes payable	20,220,000	18,725,000
Inventories	17,263,200	22,656,000	Accrued expenses	5,472,000	6,185,000
Other	1,108,800	1,184,000	Total current liabilities	<u>\$ 49,393,440</u>	<u>\$ 49,456,000</u>
Total current assets	<u>\$ 48,240,000</u>	<u>\$ 55,280,000</u>			
Fixed assets			Long-term debt	<u>\$ 129,360,000</u>	<u>\$146,560,000</u>
Property, plant, and equipment	\$408,816,000	\$ 462,030,000	Total long-term liabilities	<u>\$ 129,360,000</u>	<u>\$146,560,000</u>
Less accumulated depreciation	(94,836,000)	(114,996,000)			
Net property, plant, and equipment	<u>\$313,980,000</u>	<u>\$ 347,034,000</u>	Stockholders’ equity		
Intangible assets and others	6,840,000	6,840,000	Preferred stock	\$ 3,000,000	\$ 3,000,000
Total fixed assets	<u>\$320,820,000</u>	<u>\$ 353,874,000</u>	Common stock	30,000,000	40,800,000
			Capital surplus	12,000,000	31,200,000
			Accumulated retained earnings	157,306,560	186,138,000
			Less treasury stock	(12,000,000)	(48,000,000)
			Total equity	<u>\$ 190,306,560</u>	<u>\$213,138,000</u>
Total assets	<u>\$369,060,000</u>	<u>\$ 409,154,000</u>	Total liabilities and shareholders’ equity	<u>\$ 369,060,000</u>	<u>\$409,154,000</u>

Larissa has also provided the following information. During the year, the company raised \$40 million in new long-term debt and retired \$22.8 million in long-term debt. The company also sold \$30 million in new stock and repurchased \$36 million. The company purchased \$60 million in fixed assets, and sold \$6,786,000 in fixed assets.

Larissa has asked Dan to prepare the financial statement of cash flows and the accounting statement of cash flows. She has also asked you to answer the following questions:

1. How would you describe East Coast Yachts' cash flows?
2. Which cash flows statement more accurately describes the cash flows at the company?
3. In light of your previous answers, comment on Larissa's expansion plans.