CHAPTER

2

Financial Statements and Cash Flow

OPENING CASE

In November 2009, mortgage giant Fannie Mae announced that it was reviewing a potential write-off of $5.2 billion in low-income housing tax credits. A so-called write-off occurs when a company decides that the reported value of one or more of its assets is too high and needs to be reduced to more accurately represent the company's finances. In Fannie Mae's case, the write-off came about because Fannie Mae owned potentially valuable tax credits, but the company was unlikely to be profitable enough to use them, so their value was overstated. Fannie Mae's case was unique because the Treasury Department would not allow Fannie Mae to sell the tax credits, an option the company had explored.

While Fannie Mae's write-off is large, the record holder is media giant Time Warner, which took a charge of $45.5 billion in the fourth quarter of 2002. This enormous write-off followed an earlier, even larger, charge of $54 billion.

So, did the stockholders in these companies lose billions of dollars when these assets were written off? Fortunately for them, the answer is probably not. Understanding why ultimately leads us to the main subject of this chapter, that all-important substance known as *cash flow*.

2.1 THE BALANCE SHEET

The **balance sheet** is an accountant's snapshot of the firm's accounting value on a particular date, as though the firm stood momentarily still. The balance sheet has two sides: On the left are the *assets* and on the right are the *liabilities* and *stockholders' equity*. The balance sheet states what the firm owns and how it is financed. The accounting definition that underlies the balance sheet and describes the balance is

$$\text{Assets} \equiv \text{Liabilities} + \text{Stockholders' equity}$$

We have put a three-line equality in the balance equation to indicate that it must always hold, by definition. In fact, the stockholders' equity is *defined* to be the difference between the assets and the liabilities of the firm. In principle, equity is what the stockholders would have remaining after the firm discharged its obligations.

TABLE 2.1

The Balance Sheet of the U.S. Composite Corporation

U.S. COMPOSITE CORPORATION Balance Sheet 2009 and 2010 (in $ millions)					
ASSETS	**2009**	**2010**	**LIABILITIES (DEBT) AND STOCKHOLDERS' EQUITY**	**2009**	**2010**
Current assets:			Current liabilities:		
Cash and equivalents	$ 107	$ 140	Accounts payable	$ 197	$ 213
Accounts receivable	270	294	Notes payable	53	50
Inventories	280	269	Accrued expenses	205	223
Other	50	58	Total current liabilities	$ 455	$ 486
Total current assets	$ 707	$ 761			
			Long-term liabilities:		
Fixed assets:			Deferred taxes	$ 104	$ 117
Property, plant, and equipment	$ 1,274	$1,423	Long-term debt*	458	471
Less accumulated depreciation	460	550	Total long-term liabilities	$ 562	$ 588
Net property, plant, and equipment	$ 814	$ 873			
Intangible assets and others	221	245	Stockholders' equity:		
Total fixed assets	$ 1,035	$1,118	Preferred stock	$ 39	$ 39
			Common stock ($1 par value)	32	55
			Capital surplus	327	347
			Accumulated retained earnings	347	390
			Less treasury stock†	20	26
			Total equity	$ 725	$ 805
Total assets	$1,742	$1,879	Total liabilities and stockholders' equity‡	$1,742	$1,879

*Long-term debt rose by $471 million − 458 million = $13 million. This is the difference between $86 million new debt and $73 million in retirement of old debt.

†Treasury stock rose by $6 million. This reflects the repurchase of $6 million of U.S. Composite's company stock.

‡U.S. Composite reports $43 million in new equity. The company issued 23 million shares at a price of $1.87. The par value of common stock increased by $23 million, and capital surplus increased by $20 million.

Table 2.1 gives the 2009 and 2010 balance sheets for the fictitious U.S. Composite Corporation. The assets in the balance sheet are listed in order by the length of time it normally would take an ongoing firm to convert them to cash. The asset side depends on the nature of the business and how management chooses to conduct it. Management must make decisions about cash versus marketable securities, credit versus cash sales, whether to make or buy commodities, whether to lease or purchase items, the types of business in which to engage, and so on. The liabilities and the stockholders' equity are listed in the order in which they would typically be paid over time.

Two excellent sources for company financial information are finance.yahoo.com and money.cnn.com.

The liabilities and stockholders' equity side reflects the types and proportions of financing, which depend on management's choice of capital structure, as between debt and equity and between current debt and long-term debt.

When analyzing a balance sheet, the financial manager should be aware of three concerns: accounting liquidity, debt versus equity, and value versus cost.

Accounting Liquidity

Accounting liquidity refers to the ease and quickness with which assets can be converted to cash. *Current assets* are the most liquid and include cash and those assets that will be turned into cash within a year from the date of the balance sheet. *Accounts receivable* are

Annual and quarterly financial statements for most public U.S. corporations can be found in the EDGAR database at www.sec.gov.

amounts not yet collected from customers for goods or services sold to them (after adjustment for potential bad debts). *Inventory* is composed of raw materials to be used in production, work in process, and finished goods. *Fixed assets* are the least liquid kind of assets. Tangible fixed assets include property, plant, and equipment. These assets do not convert to cash from normal business activity, and they are not usually used to pay expenses such as payroll.

Some fixed assets are not tangible. Intangible assets have no physical existence but can be very valuable. Examples of intangible assets are the value of a trademark or the value of a patent. The more liquid a firm's assets, the less likely the firm is to experience problems meeting short-term obligations. Thus, the probability that a firm will avoid financial distress can be linked to the firm's liquidity. Unfortunately, liquid assets frequently have lower rates of return than fixed assets; for example, cash generates no investment income. To the extent a firm invests in liquid assets, it sacrifices an opportunity to invest in more profitable investment vehicles.

Debt versus Equity

Liabilities are obligations of the firm that require a payout of cash within a stipulated time period. Many liabilities involve contractual obligations to repay a stated amount and interest over a period. Thus, liabilities are debts and are frequently associated with nominally fixed cash burdens, called *debt service*, that put the firm in default of a contract if they are not paid. *Stockholders' equity* is a claim against the firm's assets that is residual and not fixed. In general terms, when the firm borrows, it gives the bondholders first claim on the firm's cash flow.[1] Bondholders can sue the firm if the firm defaults on its bond contracts. This may lead the firm to declare itself bankrupt. Stockholders' equity is the residual difference between assets and liabilities:

Assets − Liabilities ≡ Stockholders' equity

This is the stockholders' share in the firm stated in accounting terms. The accounting value of stockholders' equity increases when retained earnings are added. This occurs when the firm retains part of its earnings instead of paying them out as dividends.

The home page for the Financial Accounting Standards Board (FASB) is www.fasb.org.

Value versus Cost

The accounting value of a firm's assets is frequently referred to as the *carrying value* or the *book value* of the assets.[2] Under **generally accepted accounting principles (GAAP)**, audited financial statements of firms in the United States carry the assets at cost.[3] Thus the terms *carrying value* and *book value* are unfortunate. They specifically say "value," when in fact the accounting numbers are based on cost. This misleads many readers of financial statements to think that the firm's assets are recorded at true market values. *Market value* is the price at which willing buyers and sellers would trade the assets. It would be only a coincidence if accounting value and market value were the same. In fact, management's job is to create value for the firm that exceeds its cost.

Many people use the balance sheet, but the information each may wish to extract is not the same. A banker may look at a balance sheet for evidence of accounting liquidity and working capital. A supplier may also note the size of accounts payable and therefore the

[1]Bondholders are investors in the firm's debt. They are creditors of the firm. In this discussion, the term *bondholder* means the same thing as *creditor*.

[2]Confusion often arises because many financial accounting terms have the same meaning. This presents a problem with jargon for the reader of financial statements. For example, the following terms usually refer to the same thing: assets minus liabilities, net worth, stockholders' equity, owners' equity, book equity, and equity capitalization.

[3]Generally, GAAP require assets to be carried at the lower of cost or market value. In most instances, cost is lower than market value. However, in some cases when a fair market value can be readily determined, the assets have their value adjusted to the fair market value.

general promptness of payments. Many users of financial statements, including managers and investors, want to know the value of the firm, not its cost. This information is not found on the balance sheet. In fact, many of the true resources of the firm do not appear on the balance sheet: good management, proprietary assets, favorable economic conditions, and so on. Henceforth, whenever we speak of the value of an asset or the value of the firm, we will normally mean its market value. So, for example, when we say the goal of the financial manager is to increase the value of the stock, we mean the market value of the stock.

EXAMPLE 2.1

Market Value versus Book Value

The Cooney Corporation has fixed assets with a book value of $700 and an appraised market value of about $1,000. Net working capital is $400 on the books, but approximately $600 would be realized if all the current accounts were liquidated. Cooney has $500 in long-term debt, both book value and market value. What is the book value of the equity? What is the market value?

We can construct two simplified balance sheets, one in accounting (book value) terms and one in economic (market value) terms:

COONEY CORPORATION
Balance Sheets
Market Value versus Book Value

	Assets			Liabilities and Shareholders' Equity		
	BOOK	MARKET			BOOK	MARKET
Net working capital	$ 400	$ 600		Long-term debt	$ 500	$ 500
Net fixed assets	700	1,000		Shareholders' equity	600	1,100
	$1,100	$1,600			$1,100	$1,600

In this example, shareholders' equity is actually worth almost twice as much as what is shown on the books. The distinction between book and market values is important precisely because book values can be so different from true economic value.

2.2 THE INCOME STATEMENT

The **income statement** measures performance over a specific period of time, say, a year. The accounting definition of income is:

Revenue − Expenses = Income

If the balance sheet is like a snapshot, the income statement is like a video recording of what the people did between two snapshots. Table 2.2 gives the income statement for the U.S. Composite Corporation for 2010.

The income statement usually includes several sections. The operations section reports the firm's revenues and expenses from principal operations. One number of particular importance is earnings before interest and taxes (EBIT), which summarizes earnings before taxes and financing costs. Among other things, the nonoperating section of the income statement includes all financing costs, such as interest expense. Usually a second section reports as a separate item the amount of taxes levied on income. The last item on the income statement is the bottom line, or net income. Net income is frequently expressed per share of common stock, that is, earnings per share.

TABLE 2.2
The Income Statement of the U.S. Composite Corporation

U.S. COMPOSITE CORPORATION Income Statement 2010 (in $ millions)	
Total operating revenues	$2,262
Cost of goods sold	1,655
Selling, general, and administrative expenses	327
Depreciation	90
Operating income	$ 190
Other income	29
Earnings before interest and taxes (EBIT)	$ 219
Interest expense	49
Pretax income	$ 170
Taxes	84
Current: $71	
Deferred: $13	
Net income	$ 86
Addition to retained earnings:	$ 43
Dividends:	43

Note: There are 29 million shares outstanding. Earnings per share and dividends per share can be calculated as follows:

$$\text{Earnings per share} = \frac{\text{Net income}}{\text{Total shares outstanding}}$$
$$= \frac{\$86}{29}$$
$$= \$2.97 \text{ per share}$$
$$\text{Dividends per share} = \frac{\text{Dividends}}{\text{Total shares outstanding}}$$
$$= \frac{\$43}{29}$$
$$= \$1.48 \text{ per share}$$

When analyzing an income statement, the financial manager should keep in mind GAAP, noncash items, time, and costs.

Generally Accepted Accounting Principles

Revenue is recognized on an income statement when the earnings process is virtually completed and an exchange of goods or services has occurred. Therefore, the unrealized appreciation from owning property will not be recognized as income. This provides a device for smoothing income by selling appreciated property at convenient times. For example, if the firm owns a tree farm that has doubled in value, then, in a year when its earnings from other businesses are down, it can raise overall earnings by selling some trees. The matching principle of GAAP dictates that revenues be matched with expenses. Thus, income is reported when it is earned, or accrued, even though no cash flow has necessarily occurred (for example, when goods are sold for credit, sales and profits are reported).

Noncash Items

The economic value of assets is intimately connected to their future incremental cash flows. However, cash flow does not appear on an income statement. There are several **noncash items** that are expenses against revenues, but that do not affect cash flow. The most important of these is *depreciation*. Depreciation reflects the accountant's estimate of the cost of

equipment used up in the production process. For example, suppose an asset with a five-year life and no resale value is purchased for $1,000. According to accountants, the $1,000 cost must be expensed over the useful life of the asset. If straight-line depreciation is used, there will be five equal installments and $200 of depreciation expense will be incurred each year. From a finance perspective, the cost of the asset is the actual negative cash flow incurred when the asset is acquired (that is, $1,000, *not* the accountant's smoothed $200-per-year depreciation expense).

Another noncash expense is *deferred taxes*. Deferred taxes result from differences between accounting income and true taxable income.[4] Notice that the accounting tax shown on the income statement for the U.S. Composite Corporation is $84 million. It can be broken down as current taxes and deferred taxes. The current tax portion is actually sent to the tax authorities (for example, the Internal Revenue Service). The deferred tax portion is not. However, the theory is that if taxable income is less than accounting income in the current year, it will be more than accounting income later on. Consequently, the taxes that are not paid today will have to be paid in the future, and they represent a liability of the firm. This shows up on the balance sheet as deferred tax liability. From the cash flow perspective, though, deferred tax is not a cash outflow.

In practice, the difference between cash flows and accounting income can be quite dramatic, so it is important to understand the difference. For example, Sirius XM Radio reported a net loss of about $413 million for the third quarter of 2009. That sounds bad, but Sirius XM also reported a positive cash flow of $116 million from operating activities for the same quarter!

Time and Costs

It is often useful to think of all of future time as having two distinct parts, the *short run* and the *long run*. The short run is that period of time in which certain equipment, resources, and commitments of the firm are fixed; but the time is long enough for the firm to vary its output by using more labor and raw materials. The short run is not a precise period of time that will be the same for all industries. However, all firms making decisions in the short run have some fixed costs, that is, costs that will not change because of fixed commitments. In real business activity, examples of fixed costs are bond interest, overhead, and property taxes. Costs that are not fixed are variable. Variable costs change as the output of the firm changes; some examples are raw materials and wages for laborers on the production line.

In the long run, all costs are variable. Financial accountants do not distinguish between variable costs and fixed costs. Instead, accounting costs usually fit into a classification that distinguishes product costs from period costs. Product costs are the total production costs incurred during a period—raw materials, direct labor, and manufacturing overhead—and are reported on the income statement as cost of goods sold. Both variable and fixed costs are included in product costs. Period costs are costs that are allocated to a time period; they are called *selling, general, and administrative expenses*. One period cost would be the company president's salary.

2.3 TAXES

Taxes can be one of the largest cash outflows that a firm experiences. For example, for the fiscal year 2009, ExxonMobil's earnings before taxes were about $34.8 billion. Its tax bill, including all taxes paid worldwide, was a whopping $15.1 billion, or about 43.4 percent of its pretax earnings. The size of the tax bill is determined through the tax

[4]One situation in which taxable income may be lower than accounting income is when the firm uses accelerated depreciation expense procedures for the IRS but uses straight-line procedures allowed by GAAP for reporting purposes.

TABLE 2.3
Corporate Tax Rates

TAXABLE INCOME	TAX RATE
$ 0–50,000	15%
50,001–75,000	25
75,001–100,000	34
100,001–335,000	39
335,001–10,000,000	34
10,000,001–15,000,000	35
15,000,001–18,333,333	38
18,333,334+	35

code, an often amended set of rules. In this section, we examine corporate tax rates and how taxes are calculated.

If the various rules of taxation seem a little bizarre or convoluted to you, keep in mind that the tax code is the result of political, not economic, forces. As a result, there is no reason why it has to make economic sense.

Corporate Tax Rates

Corporate tax rates in effect for 2010 are shown in Table 2.3. A peculiar feature of taxation instituted by the Tax Reform Act of 1986 and expanded in the 1993 Omnibus Budget Reconciliation Act is that corporate tax rates are not strictly increasing. As shown, corporate tax rates rise from 15 percent to 39 percent, but they drop back to 34 percent on income over $335,000. They then rise to 38 percent and subsequently fall to 35 percent.

According to the originators of the current tax rules, there are only four corporate rates: 15 percent, 25 percent, 34 percent, and 35 percent. The 38 and 39 percent brackets arise because of "surcharges" applied on top of the 34 and 35 percent rates. A tax is a tax is a tax, however, so there are really six corporate tax brackets, as we have shown.

Average versus Marginal Tax Rates

In making financial decisions, it is frequently important to distinguish between average and marginal tax rates. Your **average tax rate** is your tax bill divided by your taxable income, in other words, the percentage of your income that goes to pay taxes. Your **marginal tax rate** is the tax you would pay (in percent) if you earned one more dollar. The percentage tax rates shown in Table 2.3 are all marginal rates. Put another way, the tax rates apply to the part of income in the indicated range only, not all income.

The difference between average and marginal tax rates can best be illustrated with a simple example. Suppose our corporation has a taxable income of $200,000. What is the tax bill? Using Table 2.3, we can figure our tax bill as:

.15($ 50,000)	=	$ 7,500
.25($ 75,000 − 50,000)	=	6,250
.34($100,000 − 75,000)	=	8,500
.39($200,000 − 100,000)	=	39,000
		$61,250

The IRS has a great Web site! (www.irs.gov)

Our total tax is thus $61,250.

In our example, what is the average tax rate? We had a taxable income of $200,000 and a tax bill of $61,250, so the average tax rate is $61,250/200,000 = 30.625%. What is the

marginal tax rate? If we made one more dollar, the tax on that dollar would be 39 cents, so our marginal rate is 39 percent.

EXAMPLE 2.2

Deep in the Heart of Taxes

Algernon, Inc., has a taxable income of $85,000. What is its tax bill? What is its average tax rate? Its marginal tax rate?

From Table 2.3, we see that the tax rate applied to the first $50,000 is 15 percent; the rate applied to the next $25,000 is 25 percent, and the rate applied after that up to $100,000 is 34 percent. So Algernon must pay .15 × $50,000 + .25 × 25,000 + .34 × (85,000 − 75,000) = $17,150. The average tax rate is thus $17,150/85,000 = 20.18%. The marginal rate is 34 percent because Algernon's taxes would rise by 34 cents if it had another dollar in taxable income.

Table 2.4 summarizes some different taxable incomes, marginal tax rates, and average tax rates for corporations. Notice how the average and marginal tax rates come together at 35 percent.

With a *flat-rate* tax, there is only one tax rate, so the rate is the same for all income levels. With such a tax, the marginal tax rate is always the same as the average tax rate. As it stands now, corporate taxation in the United States is based on a modified flat-rate tax, which becomes a true flat rate for the highest incomes.

In looking at Table 2.4, notice that the more a corporation makes, the greater is the percentage of taxable income paid in taxes. Put another way, under current tax law, the average tax rate never goes down, even though the marginal tax rate does. As illustrated, for corporations, average tax rates begin at 15 percent and rise to a maximum of 35 percent.

It will normally be the marginal tax rate that is relevant for financial decision making. The reason is that any new cash flows will be taxed at that marginal rate. Because financial decisions usually involve new cash flows or changes in existing ones, this rate will tell us the marginal effect of a decision on our tax bill.

There is one last thing to notice about the tax code as it affects corporations. It's easy to verify that the corporate tax bill is just a flat 35 percent of taxable income if our taxable income is more than $18.33 million. Also, for the many midsize corporations with taxable incomes in the range of $335,000 to $10,000,000, the tax rate is a flat 34 percent. Because we will normally be talking about large corporations, you can assume that the average and marginal tax rates are 35 percent unless we explicitly say otherwise.

Before moving on, we should note that the tax rates we have discussed in this section relate to federal taxes only. Overall tax rates can be higher once state, local, and any other taxes are considered.

TABLE 2.4
Corporate Taxes and Tax Rates

(1) TAXABLE INCOME	(2) MARGINAL TAX RATE	(3) TOTAL TAX	(3)/(1) AVERAGE TAX RATE
$ 45,000	15%	$ 6,750	15.00%
70,000	25	12,500	17.86
95,000	34	20,550	21.63
250,000	39	80,750	32.30
1,000,000	34	340,000	34.00
17,500,000	38	6,100,000	34.86
50,000,000	35	17,500,000	35.00
100,000,000	35	35,000,000	35.00

2.4 NET WORKING CAPITAL

Net working capital is current assets minus current liabilities. Net working capital is positive when current assets are greater than current liabilities. This means the cash that will become available over the next 12 months will be greater than the cash that must be paid out. The net working capital of the U.S. Composite Corporation is $275 million in 2010 and $252 million in 2009:

	Current assets ($ millions)	–	Current liabilities ($ millions)	=	Net working capital ($ millions)
2010	**$761**	–	**$486**	=	**$275**
2009	**707**	–	**455**	=	**252**

In addition to investing in fixed assets (i.e., capital spending), a firm can invest in net working capital. This is called the **change in net working capital**. The change in net working capital in 2010 is the difference between the net working capital in 2010 and 2009; that is, $275 million − 252 million = $23 million. The change in net working capital is usually positive in a growing firm.

2.5 FINANCIAL CASH FLOW

Perhaps the most important item that can be extracted from financial statements is the actual **cash flow** of the firm. There is an official accounting statement called the *statement of cash flows*. This statement helps to explain the change in accounting cash and equivalents, which for U.S. Composite is $33 million in 2010. (See Section 2.6.) Notice in Table 2.1 that cash and equivalents increase from $107 million in 2009 to $140 million in 2010. However, we will look at cash flow from a different perspective, the perspective of finance. In finance, the value of the firm is its ability to generate financial cash flow. (We will talk more about financial cash flow in Chapter 8.)

The first point we should mention is that cash flow is not the same as net working capital. For example, increasing inventory requires using cash. Because both inventories and cash are current assets, this does not affect net working capital. In this case, an increase in a particular net working capital account, such as inventory, is associated with decreasing cash flow.

Just as we established that the value of a firm's assets is always equal to the value of the liabilities and the value of the equity, the cash flows received from the firm's assets (that is, its operating activities), CF(A), must equal the cash flows to the firm's creditors, CF(B), and equity investors, CF(S):

$$\mathbf{CF}(A) \equiv \mathbf{CF}(B) + \mathbf{CF}(S)$$

The first step in determining cash flows of the firm is to figure out the *cash flow from operations*. As can be seen in Table 2.5, operating cash flow is the cash flow generated by business activities, including sales of goods and services. Operating cash flow reflects tax payments, but not financing, capital spending, or changes in net working capital.

	IN $ MILLIONS
Earnings before interest and taxes	$219
Depreciation	90
Current taxes	−71
Operating cash flow	$238

Another important component of cash flow involves *changes in fixed assets*. For example, when U.S. Composite sold its power systems subsidiary in 2010, it generated $25 in

TABLE 2.5
Financial Cash Flow of the U.S. Composite Corporation

U.S. COMPOSITE CORPORATION Financial Cash Flow 2010 (in $ millions)	
Cash Flow of the Firm	
Operating cash flow (Earnings before interest and taxes plus depreciation minus taxes)	$238
Capital spending (Acquisitions of fixed assets minus sales of fixed assets)	−173
Additions to net working capital	− 23
Total	$ 42
Cash Flow to Investors in the Firm	
Debt (Interest plus retirement of debt minus long-term debt financing)	$ 36
Equity (Dividends plus repurchase of equity minus new equity financing)	6
Total	$ 42

cash flow. The net change in fixed assets equals the acquisition of fixed assets minus sales of fixed assets. The result is the cash flow used for capital spending:

Acquisition of fixed assets	$198	
Sales of fixed assets	− 25	
Capital spending	$173	($149 + 24 = Increase in property, plant, and equipment + Increase in intangible assets)

We can also calculate capital spending simply as:

$$\begin{aligned}\textbf{Capital spending} &= \textbf{Ending net fixed assets} - \textbf{Beginning net fixed assets} \\ &\quad + \textbf{Depreciation} \\ &= \textbf{\$1,118} - \textbf{1,035} + \textbf{90} \\ &= \textbf{\$173}\end{aligned}$$

Cash flows are also used for making investments in net working capital. In U.S. Composite Corporation in 2010, *additions to net working capital* are:

Additions to net working capital	$23

Note that this $23 is the change in net working capital we previously calculated.

Total cash flows generated by the firm's assets are the sum of:

Operating cash flow	$238
Capital spending	− 173
Additions to net working capital	− 23
Total cash flow of the firm	$ 42

The total outgoing cash flow of the firm can be separated into cash flow paid to creditors and cash flow paid to stockholders. The cash flow paid to creditors represents a regrouping of the data in Table 2.5 and an explicit recording of interest expense. Creditors are paid an amount generally referred to as *debt service*. Debt service is interest payments plus repayments of principal (that is, retirement of debt).

An important source of cash flow is the sale of new debt. U.S. Composite's long-term debt increased by $13 million (the difference between $86 million in new debt and

$73 million in retirement of old debt).[5] Thus, an increase in long-term debt is the net effect of new borrowing and repayment of maturing obligations plus interest expense.

CASH FLOW PAID TO CREDITORS (in $ millions)	
Interest	$ 49
Retirement of debt	73
Debt service	122
Proceeds from long-term debt sales	− 86
Total	$ 36

Cash flow paid to creditors can also be calculated as:

$$\begin{aligned}\textbf{Cash flow paid to creditors} &= \textbf{Interest paid} - \textbf{Net new borrowing}\\ &= \textbf{Interest paid} - \textbf{(Ending long-term debt}\\ &\quad - \textbf{Beginning long-term debt)}\\ &= \textbf{\$49} - \textbf{(471} - \textbf{458)}\\ &= \textbf{\$36}\end{aligned}$$

Cash flow of the firm also is paid to the stockholders. It is the net effect of paying dividends plus repurchasing outstanding shares of stock and issuing new shares of stock.

CASH FLOW TO STOCKHOLDERS (in $ millions)	
Dividends	$43
Repurchase of stock	6
Cash to stockholders	49
Proceeds from new stock issue	−43
Total	$ 6

In general, cash flow to stockholders can be determined as:

$$\begin{aligned}\textbf{Cash flow to stockholders} &= \textbf{Dividends paid} - \textbf{Net new equity raised}\\ &= \textbf{Dividends paid} - \textbf{(Stock sold}\\ &\quad - \textbf{Stock repurchased)}\end{aligned}$$

To determine stock sold, notice that the common stock and capital surplus accounts went up by a combined $23 + 20 = $43, which implies that the company sold $43 million worth of stock. Second, Treasury stock went up by $6, indicating that the company bought back $6 million worth of stock. Net new equity is thus $43 − 6 = $37. Dividends paid were $43, so the cash flow to stockholders was:

$$\textbf{Cash flow to stockholders} = \textbf{\$43} - \textbf{(43} - \textbf{6)} = \textbf{\$6,}$$

which is what we previously calculated.

Some important observations can be drawn from our discussion of cash flow:

1. Several types of cash flow are relevant to understanding the financial situation of the firm. **Operating cash flow**, defined as earnings before interest and depreciation minus taxes, measures the cash generated from operations not counting capital spending or working capital requirements. It is usually positive; a firm is in trouble if operating cash flow is negative for a long time because the firm is

[5]New debt and the retirement of old debt are usually found in the "notes" to the balance sheet.

not generating enough cash to pay operating costs. **Total cash flow of the firm** includes adjustments for capital spending and additions to net working capital. It will frequently be negative. When a firm is growing at a rapid rate, the spending on inventory and fixed assets can be higher than cash flow from sales.

2. Net income is not cash flow. The net income of the U.S. Composite Corporation in 2010 was $86 million, whereas cash flow was $42 million. The two numbers are not usually the same. In determining the economic and financial condition of a firm, cash flow is more revealing.

A firm's total cash flow sometimes goes by a different name, **free cash flow**. Of course, there is no such thing as "free" cash (we wish!). Instead, the name refers to cash that the firm is free to distribute to creditors and stockholders because it is not needed for working capital or fixed asset investments. We will stick with "total cash flow of the firm" as our label for this important concept because, in practice, there is some variation in exactly how free cash flow is computed; different users calculate it in different ways. Nonetheless, whenever you hear the phrase "free cash flow," you should understand that what is being discussed is cash flow from assets or something quite similar.

2.6 THE ACCOUNTING STATEMENT OF CASH FLOWS

As previously mentioned, there is an official accounting statement called the statement of cash flows. This statement helps explain the change in accounting cash, which for U.S. Composite is $33 million in 2010. It is very useful in understanding financial cash flow.

The first step in determining the change in cash is to figure out cash flow from operating activities. This is the cash flow that results from the firm's normal activities producing and selling goods and services. The second step is to make an adjustment for cash flow from investing activities. The final step is to make an adjustment for cash flow from financing activities. Financing activities are the net payments to creditors and owners (excluding interest expense) made during the year.

The three components of the statement of cash flows are determined below.

Cash Flow from Operating Activities

To calculate cash flow from operating activities we start with net income. Net income can be found on the income statement and is equal to $86 million. We now need to add back noncash expenses and adjust for changes in current assets and liabilities (other than cash and notes payable). The result is cash flow from operating activities.

U.S. COMPOSITE CORPORATION Cash Flow from Operating Activities 2010 (in $ millions)	
Net income	$ 86
Depreciation	90
Deferred taxes	13
Change in assets and liabilities	
Accounts receivable	− 24
Inventories	11
Accounts payable	16
Accrued expense	18
Other	− 8
Cash flow from operating activities	$202

THE REAL WORLD

PUTTING A SPIN ON CASH FLOWS

One of the reasons why cash flow analysis is popular is the difficulty in manipulating, or spinning, cash flows. GAAP accounting principles allow for significant subjective decisions to be made regarding many key areas. The use of cash flow as a metric to evaluate a company comes from the idea that there is less subjectivity involved, and, therefore, it is harder to spin the numbers. But several recent examples have shown that companies can still find ways to do it.

In November 2009, the SEC settled charges against SafeNet, Inc. and some of its former officers, employees, and accountants, in connection with earnings management and options backdating schemes. This case represented the SEC's first enforcement action brought under Regulation G of Sarbox. Of course other companies have spun financial results without legal action. For example, in March 2007, rental car company Avis Budget Group was forced to revise its first quarter 2007 operating cash flow by more than $45 million. The company had improperly classified the cash flow as an operating cash flow rather than an investing cash flow. This maneuver had the effect of increasing operating cash flows and decreasing investing cash flows by the same amount.

Tyco used several ploys to alter cash flows. For example, the company purchased more than $800 million of customer security alarm accounts from dealers. The cash flows from these transactions were reported in the financing activity section of the accounting statement of cash flows. When Tyco received payments from customers, the cash inflows were reported as operating cash flows. Another method used by Tyco was to have acquired companies prepay operating expenses. In other words, the company acquired by Tyco would pay vendors for items not yet received. In one case, the payments totaled more than $50 million. When the acquired company was consolidated with Tyco, the prepayments reduced Tyco's cash outflows, thus increasing the operating cash flows.

Dynegy, the energy giant, was accused of engaging in a number of complex "round trip trades." The round trip trades essentially involved the sale of natural resources to a counterparty, with the repurchase of the resources from the same party at the same price. In essence, Dynegy would sell an asset for $100, and immediately repurchase it from the buyer for $100. The problem arose with the treatment of the cash flows from the sale. Dynegy treated the cash from the sale of the asset as an operating cash flow, but classified the repurchase as an investing cash outflow. The total cash flows of the contracts traded by Dynegy in these round trip trades totaled $300 million.

Adelphia Communications was another company that apparently manipulated cash flows. In Adelphia's case, the company capitalized the labor required to install cable. In other words, the company classified this labor expense as a fixed asset. While this practice is fairly common in the telecommunications industry, Adelphia capitalized a higher percentage of labor than is common. The effect of this classification was that the labor was treated as an investment cash flow, which increased the operating cash flow.

In each of these examples, the companies were trying to boost operating cash flows by shifting cash flows to a different heading. The important thing to notice is that these movements don't affect the total cash flow of the firm, which is why we recommend focusing on this number, not just operating cash flow.

We should also note that, for 2008, the total number of financial restatements fell nearly 30 percent from 2007, which had itself experienced a 31 percent decline in restatements from 2006. While this is a positive trend, restatements due to cash flow misclassification increased in prevalence over the same period.

Cash Flow from Investing Activities

Cash flow from investing activities involves changes in capital assets: acquisition of fixed assets and sales of fixed assets (i.e., net capital expenditures). The result for U.S. Composite is below.

U.S. COMPOSITE CORPORATION Cash Flow from Investing Activities 2010 (in $ millions)	
Acquisition of fixed assets	−$198
Sales of fixed assets	25
Cash flow from investing activities	−$173

Cash Flow from Financing Activities

Cash flows to and from creditors and owners include changes in equity and debt.

U.S. COMPOSITE CORPORATION Cash Flow from Financing Activities 2010 (in $ millions)	
Retirement of long-term debt	−$73
Proceeds from long-term debt sales	86
Change in notes payable	− 3
Dividends	− 43
Repurchase of stock	− 6
Proceeds from new stock issue	43
Cash flow from financing activities	$ 4

The statement of cash flows is the addition of cash flows from operations, cash flows from investing activities, and cash flows from financing activities, and is produced in Table 2.6. When we add all the cash flows together, we get the change in cash on the balance sheet of $33 million.

TABLE 2.6

Statement of Consolidated Cash Flows of the U.S. Composite Corporation

U.S. COMPOSITE CORPORATION Statement of Cash Flows 2010 (in $ millions)	
Operations	
Net income	$ 86
Depreciation	90
Deferred taxes	13
Changes in assets and liabilities	
Accounts receivable	− 24
Inventories	11
Accounts payable	16
Accrued expenses	18
Other	− 8
Total cash flow from operations	$202
Investing activities	
Acquisition of fixed assets	−$198
Sales of fixed assets	25
Total cash flow from investing activities	−$173
Financing activities	
Retirement of long-term debt	−$ 73
Proceeds from long-term debt sales	86
Change in notes payable	− 3
Dividends	− 43
Repurchase of stock	− 6
Proceeds from new stock issue	43
Total cash flow from financing activities	$ 4
Change in cash (on the balance sheet)	$ 33

There is a close relationship between the official accounting statement called the statement of cash flows and the total cash flow of the firm used in finance. Going back to the previous section, you should note a slight conceptual problem here. Interest paid should really go under financing activities, but unfortunately that is not how the accounting is handled. The reason is that interest is deducted as an expense when net income is computed. As a consequence, a primary difference between the accounting cash flow and the financial cash flow of the firm (see Table 2.5) is interest expense. *The Real World* box on page 32 discusses some ways in which companies have attempted to "spin the numbers" in the accounting statement of cash flows.

SUMMARY AND CONCLUSIONS

Besides introducing you to corporate accounting, the purpose of this chapter has been to teach you how to determine cash flow from the accounting statements of a typical company.

1. Cash flow is generated by the firm and paid to creditors and shareholders. It can be classified as:
   a. Cash flow from operations.
   b. Cash flow from changes in fixed assets.
   c. Cash flow from changes in working capital.
2. Calculations of cash flow are not difficult, but they require care and particular attention to detail in properly accounting for noncash expenses such as depreciation and deferred taxes. It is especially important that you do not confuse cash flow with changes in net working capital and net income.

CONCEPT QUESTIONS

1. **Liquidity** What does liquidity measure? Explain the trade-off a firm faces between high liquidity and low liquidity levels.
2. **Accounting and Cash Flows** Why is it that the revenue and cost figures shown on a standard income statement may not be representative of the actual cash inflows and outflows that occurred during the period?
3. **Accounting Statement of Cash Flows** Looking at the accounting statement of cash flows, what does the bottom line number mean? How useful is this number for analyzing a company?
4. **Cash Flows** How do financial cash flows and the accounting statement of cash flows differ? Which is more useful when analyzing a company?
5. **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?
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 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

connect

Basic
(Questions 1–10)

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.

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?

Intermediate (Questions 11–25)

11. **Cash Flows** Ritter Corporation's accountants prepared the following financial statements for year-end 2010.

RITTER CORPORATION
Income Statement
2010

Revenue	$780
Expenses	620
Depreciation	50
EBT	$110
Tax	39
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	320	408
Total assets	$501	$593
Liabilities and Equity		
Accounts payable	$140	$143
Long-term debt	0	40
Stockholders' equity	361	410
Total liabilities and equity	$501	$593

a. Explain the change in cash during the year 2010.

b. Determine the change in net working capital in 2010.

c. 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 Stancil 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.
    a. What was Senbet's net income?
    b. 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.
    a. What was the 2010 operating cash flow?
    b. What was the 2010 cash flow to creditors?
    c. What was the 2010 cash flow to stockholders?
    d. 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.
    a. What is the market value of the shareholders' equity if assets have a market value of $15,100?
    b. 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.
    a. What is the tax bill for each firm?
    b. 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.)
    a. What was Raines's net income for 2010?
    b. What was its operating cash flow?
    c. 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.

a. What was net income for 2010?

b. What was the operating cash flow for 2010?

c. What was the cash flow from assets for 2010? Is this possible? Explain.

d. 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

a. What was owners' equity for 2009 and 2010?

b. What was the change in net working capital for 2010?

c. 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.)

d. 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

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.

Challenge (Questions 26–28)

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	$676
Investing activities	
Acquisition of fixed assets	−$415
Sale of fixed assets	53
Total cash flow from investing activities	−$362
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	−$265
Change in cash (on balance sheet)	$ 49

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	$ 88,416,000
Interest expense	11,112,000
EBT	$ 77,304,000
Taxes	30,921,600
Net income	$ 46,382,400
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	$ 49,393,440	$ 49,456,000
Total current assets	$ 48,240,000	$ 55,280,000			
Fixed assets			Long-term debt	$ 129,360,000	$146,560,000
Property, plant, and equipment	$408,816,000	$ 462,030,000	Total long-term liabilities	$ 129,360,000	$146,560,000
Less accumulated depreciation	(94,836,000)	(114,996,000)			
Net property, plant, and equipment	$313,980,000	$ 347,034,000			
Intangible assets and others	6,840,000	6,840,000	Stockholders' equity		
Total fixed assets	$320,820,000	$ 353,874,000	Preferred stock	$ 3,000,000	$ 3,000,000
			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	$ 190,306,560	$213,138,000
Total assets	$369,060,000	$ 409,154,000	Total liabilities and shareholders' equity	$ 369,060,000	$409,154,000

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.