

Part I

Fitting Cash Flow into the Big Picture of Running a Business

The 5th Wave

By Rich Tennant



"This ledger certainly paints a picture of the company. Edvard Munch's 'The Scream' comes to mind."

In this part . . .

We begin with the first rule of business — you can't run out of cash. Business managers and owners need to understand cash flow. The logical place to start is cash flow from making profit. When you read about revenue and expenses in an income statement (also known as a *profit and loss report*), you aren't reading cash-flow numbers. The cash flows of revenue and expenses are different, and you'd better know why.

Business managers and owners need to know how to read their three basic financial statements from the cash-flow point of view, and that includes having a sure grip on the statement of cash flows and how it connects with the balance sheet and income statement. Ignoring cash flow is not an option in managing a business — unless you have more cash than you know what to do with. Many businesses operate with a razor-thin cash balance, so understanding cash flow should be a top priority.

Chapter 1

Getting in Sync with the Rhythm of Cash

In This Chapter

- ▶ Defining the number one business rule: Don't run out of cash
 - ▶ Reviewing how revenue and expenses are tracked
 - ▶ Differentiating profit and cash flow: Kissing cousins but not identical twins
 - ▶ Sorting out basic types of cash flows
-

In running a business, you have to follow many rules, but one rule stands above the others: *Don't run out of cash*. As obvious as you may think this rule is, the importance and difficulty of maintaining an adequate cash balance are generally taken for granted in business management books and articles. Many business managers ignore cash until a serious problem pops up. They assume that cash will take care of itself, as if cash could be put on automatic pilot. Nothing is farther from the truth. If you don't pay attention to cash, you may be in for a nasty surprise.

To control cash, you must control cash inflows and cash outflows. To do that, you need cash-flow information, and you need to know how well your current cash balance stacks up against the short-term demands on cash. Managers depend on regular accounting reports for financial information; in particular, their monthly income statement (also called the *profit and loss*, or *P&L, report*). However, the income statement doesn't provide the cash-flow information you need.

You must turn to another financial statement for cash-flow information, appropriately called the *statement of cash flows*. But here is where things get rather befuddling for the business manager. The cash-flow statement lists adjustments to profit to arrive at the cash flow from making profit. It assumes that the reader has a good basic understanding of profit accounting and, therefore, knows why adjustments are necessary to find cash flow. But in our experience, business managers do not fully understand how their accountants measure profit, which makes understanding cash flow and why it's higher or lower than profit very difficult.

This chapter starts by pointing out the catastrophic consequences of running out of cash. Next, we offer a brief review of profit accounting and the assets and liabilities that are used in recording revenue and expenses. Changes in these assets and liabilities are the reasons why cash flow differs from profit. Then the chapter takes the first steps in explaining the cash-flow aspects of making profit and why cash flow is invariably higher or lower than the bottom-line profit or loss number in the income statement. We also explain the cash-flow side of business transactions and the basic classes of cash flows.

Not Letting the Well Run Dry

One morning you arrive at your business. As usual, you're the first person to arrive. But none of your employees come to work. Not one. Who will open the doors for customers? Who will sell your products? Who will start tapping on the computers? This scenario may seem like a nightmare, but it's not the worst thing that can happen to a business.

Here's the real fiasco you should worry about: One day your accountant rushes into your office and tells you that the business's bank account balance is zero. You have \$50 in petty cash and a small amount of currency in the cash registers. But that's it. Your checking account is empty. You can't cut any checks to your vendors, who will cut off your credit if not paid on time. You have a sizable payroll to meet in two days. If not paid, your employees will quit. And your bank is sure to notice that your checking account balance is zip and may consider shutting down your credit line. It's not a pretty picture, is it?



A zero cash balance puts you on the edge of a cliff. One false step and you can fall off and be unable to recover. When your suppliers, employees, and sources of capital find out about your cash problems — and they will — your credibility drops to zero. The businesses and various people you deal with depend on your ability to continue as a going business that they can rely on in the future. Running out of cash would pull the rug out from under the reputation of your business that you worked so hard to build up over the years. You could lose your business to creditors or have to declare bankruptcy.

Running out of cash is an extreme, worst-case scenario, although it's a threat many businesses face. The purpose of mentioning it here is to emphasize its disaster potential for a business. Running out of cash is not just a life-changing event for a business; it can be a life-*ending* event. Business managers should never let their guard down regarding cash and cash flows.

Surprisingly, many business managers, small-business owners/managers in particular, do not take an aggressive, proactive approach toward controlling cash. Instead of learning cash-flow fundamentals and techniques of controlling cash flows, they retreat into a passive mode. But very few businesses have the luxury of sitting on hoards of cash such that they really don't have to worry about the cash balance period to period. Many businesses operate on a razor-thin cash balance.

Outlining Profit Accounting Basics



The best way to avoid cash-flow problems and to generate a stream of cash flow is to earn profit. Measuring profit (or loss) is the job of your accountant. Each period your accountant prepares an income statement that summarizes revenue and expenses and profit (or loss) for the period. To understand cash flow emanating from profit, you need to understand how your accountant records revenue and expenses. Otherwise you'll be confused about why your cash flow from profit during the period is different from your profit for the period. You don't have to delve into the technical aspects of revenue and expense accounting — just understand the basics. This section gives you the brief overview you need to go forward with managing cash flow.

We're optimistic that you know that profit is the excess of revenue over expenses (and loss is the excess of expenses over revenue). We mention it simply to stress that *profit* accounting really refers to *revenue and expense* accounting. Profit (or loss) is just the residual number left over after recording revenue and expenses for the period.

The brief discussion of revenue and expense accounting in this section is no more than dipping our toes in the water. Profit accounting involves much, much more than this very brief introduction covers. We go into more details later in this chapter in and future chapters. For a more extensive explanation of accounting methods and problems, see *Accounting For Dummies*, 4th Edition, by John A. Tracy (John Wiley & Sons, Inc.).

Reviewing revenue accounting

When a sale is made for “cash on the barrelhead,” to use an old expression, cash increases and the accountant increases the sales revenue account the same amount. At the retail level, most sales are for cash; currency and

coins are received by the business, or a credit or debit card is accepted that almost immediately increases the cash account of the business. In contrast, many businesses sell on credit, especially to other businesses. No money is collected from the customer until a month or so after the sale. In those cases, the accountant records the sale immediately by increasing an asset account called *accounts receivable* and increases sales revenue the same amount. When the customer pays later, cash is increased and the accounts receivable asset is decreased. Notice the time lag between the two events — point one when the sale is recorded and point two when the cash is received.

Revenue accounting can be much more complicated than recording simple cash and credit sales. For example, some businesses collect cash from customers before delivering the product or service, such as newspapers that collect subscriptions in advance before delivering the papers, and insurance companies that collect premiums before the insurance period coverage begins. But in any case, recording revenue is coupled with a corresponding increase in an asset or, in some cases, a decrease in a liability.

Examining expense accounting

A business records many expenses by decreasing cash and increasing an expense account, such as paying the monthly utility bill for gas and electricity. This transaction is straightforward enough: Cash decreases and an expense account increases the same amount. But many expenses are more complicated. Perhaps an expense is recorded before cash is actually paid out, or it may be recorded sometime after cash has been paid out.



Recording an expense is coupled with a corresponding decrease in an asset or an increase in a liability. For example, a business receives a bill from its lawyer for work already done. The appropriate expense account (legal fees) is increased, and a liability account called *accounts payable* is increased. When the bill is paid later, cash is decreased and the accounts payable liability is decreased.

When a business buys products that it will sell later to its customers, it increases an asset account called *inventory*. Suppose the purchase is on credit from the vendor. The inventory asset account is increased, and the accounts payable liability account is increased. When the goods are sold — but not until then — the inventory asset account is decreased for the cost of products sold and the expense account cost of goods sold is increased the same amount.

Usually a business pays its vendor before it sells the products to its customers. However, in some cases a business may sell products to its customers before it pays the supplier of the products.

Here's another example of an important expense: Suppose a business bought a delivery truck three years ago and paid for it then. The cost of the truck is recorded as an increase in an asset account. Then each year the truck is used, a fraction of the total cost of the truck is recorded to expense, which amount is recorded as a decrease in the asset account. That portion of the original cost charged to expense in the year is called *depreciation expense*, and we discuss its cash-flow aspects in the later section "Depreciation expense."

Contrasting cash- and accrual-basis accounting

For most businesses, profit accounting (recording revenue and expenses) involves much more than just recording cash inflows and cash outflows. Recording only cash inflows and outflows is not acceptable for most businesses and, in fact, would be seriously misleading. That type of accounting, called *cash-basis accounting*, doesn't fit how most businesses carry on their profit-making activities or how businesses raise and invest capital.



Under cash-basis accounting, revenue and expenses are recorded when the cash flow happens. Revenue is recorded when cash is received, and expenses are recorded when cash payments are made — not before and not after. Some small businesses that tend to operate through straightforward transactions get by with cash-basis accounting. Federal income-tax law allows cash-basis accounting for businesses that meet certain conditions. Generally, cash-basis accounting is acceptable only for relatively small businesses that don't buy or sell on credit and that don't make investments in operating assets.

Most businesses of any size and complexity buy and/or sell on credit and make sizable investments in long-term operating assets (buildings, machinery, and the like). For these businesses, cash-basis accounting is woefully inadequate. Instead, they use accrual-basis accounting. (How well they use it is another matter.) Fundamentally, *accrual-basis accounting* means that several assets other than cash and several liabilities are used in recording revenue and expenses.



Accrual is not a particularly good descriptive term. In accounting jargon, it doesn't mean accumulation, accretion, growth, or enlargement. In the field of accounting, the term *accrual* refers to recording revenue and expenses (as well as the resultant increases and decreases in assets and liabilities) at the time that economic exchanges and business transactions take place. The cash flows of many transactions occur before or after the transaction — perhaps a few days, maybe a month, or even years before or after recording revenue and expenses. Accrual-basis accounting is on one timetable; cash flows are on another timetable.

Seeing Why Profit and Cash Flow Are Different Bottom Lines

You often hear that a business “made money,” meaning that it earned a profit. But earning a profit does not mean that the business’s cash balance went up the same amount. In fact, earning profit can sometimes cause the cash balance to decrease. To keep the business healthy, managers need to differentiate the two numbers and understand the importance of each.



The income statement of a business (a key accounting report also called the *P&L report*, *earnings statement*, *statement of operations*, and other titles) summarizes the revenue and expenses of a business for a period of time. The last line of the statement is the profit or loss for the period. The cash increase (or decrease) from making the profit is a different matter. Many business managers mistakenly assume that profit reported in this statement means the cash balance increases the same amount — a potentially dangerous misperception.

In this section, we discuss what information you can glean from the income statement, what info you can’t, and why you need to keep an eye on more than one bottom line.

Considering what the income statement doesn't say about cash flow

Figure 1-1 presents the most recent annual income statement of your friendly hardware store. We keep the number of lines in this income statement example to a minimum, to focus attention on fundamentals. Also, the dollar amounts are rounded off. (Following common practice, numbers in parentheses mean a decrease by that amount; numbers not in parentheses mean an increase.) The figures for revenue and expenses are in accordance with generally accepted accounting standards, and you can assume that they’re free of fraud or deliberate distortion.

The business sells a wide variety of products to retail customers who pay cash or use credit and debit cards, which the business converts into cash almost immediately. The hardware store also sells to other businesses. Its basic business model is to mark up the costs of products (called “goods”) it buys to earn enough total gross margin to cover its operating, depreciation, and interest expenses, and to provide profit. As you see in Figure 1-1, the business earned \$600,000 bottom-line profit for the year just ended, which equals sales revenue minus all expenses. As an aside, you may notice that profit equals 5 percent of sales revenue ($\$600,000 \text{ profit} / \$12,000,000 \text{ sales revenue} = 5\%$), which means that expenses are 95 percent of sales revenue.

Income Statement for Year Just Ended

Dollar amounts in thousands

Sales Revenue	\$12,000
Cost of Goods Sold Expense	(\$7,500)
Gross Margin	\$4,500
Operating Expenses	(\$3,400)
Depreciation Expense	(\$200)
Operating Earnings	\$900
Interest Expense	(\$300)
Net Income	\$600

Figure 1-1:
Example
income
statement.

The income statement by itself doesn't report how much of sales revenue was collected in cash during the year. Consider the \$12 million sales revenue amount, for instance. This accrual-basis accounting amount may be relatively close to the actual cash inflow from sales during the year — but then again, it may not be. Most of the total annual sales revenue probably has been collected in cash through the end of the year, but some of it probably hasn't been collected in cash yet at that time. In this case, cash flow from sales would be less than sales revenue. (We explain cash flow from revenue in the next section, "Exploring cash flow from profit.")

Likewise, the income statement by itself does not report how much of each expense was paid in cash during the year. You don't see in the income statement the impact of expenses on the particular assets and liabilities used to record the expenses. The amount of an expense may be relatively close to the actual cash outflow for the expense — but maybe not. One expense in particular is important to understand in this regard because it is a noncash expense: *depreciation*. Depreciation recorded on the income statement involves no cash outlay at any point. In contrast, other expenses are intertwined with cash. (We also explain cash flow for expenses in the next section.)

The actual cash flows of revenue and expenses differ from the accrual-basis amounts reported in the income statement for most businesses. Therefore, the bottom-line profit number does not indicate the increase in cash from making profit. Cash flow can be about the same, or can be considerably lower or higher than profit.

Exploring cash flow from profit

Figure 1-2 presents a summary of the cash flows for sales revenue and expenses that are reported in the income statement (refer to Figure 1-1).

Your accountant can prepare this summary in the process of compiling the financial statements of the business at the end of the period.

Revenue and Expense Cash Flows for Year

Dollar amounts in thousands

Figure 1-2: Summary of revenue and expense cash flows.	Sales Revenue	\$11,750
	Cost of Goods Sold Expense	(\$7,800)
	Operating Expenses	(\$3,250)
	Depreciation Expense	\$0
	Interest Expense	(\$300)
	Net Increase in Cash	<u><u>\$400</u></u>

The cash flows of revenue and most expenses in Figure 1-2 are different from the accrual-basis numbers in the income statement (in Figure 1-1). The income statement reports the correct profit for the period, \$600,000 in the example. The cash-flows summary shows actual cash flows of revenue and expenses, and it turns out that net cash flow for the year is \$400,000, which is \$200,000 lower than profit for the year. This discrepancy isn't unusual and doesn't in any way imply that profit has not been accounted for correctly.

Here's a quick summary of the differences between the income statement amounts and the cash flows of revenue and expenses in thousands.

Sales	(\$250)
Goods sold	(\$300)
Operations	\$150
Depreciation	\$200
Interest	\$0
Total cash flow	(\$200)

A negative number (shown in parentheses) means that cash inflow from revenue is lower than the accrual-basis number in the income statement, or that cash outflow for an expense is higher than the number in the income statement. A positive number (without parentheses) means that cash inflow from revenue is higher than the accrual-basis number in the income statement, or that cash outflow for an expense is lower than the number in the income statement.

Because these numbers are different, business managers need to keep an eye on both cash flows and accrual-basis revenue and expenses. You could say that the business manager needs bifocals — one level for focusing on cash

flow and one level for profit — because cash flow can get out of control even when profit performance is acceptable. For example, a business may allow its uncollected receivables from credit sales to balloon way out of proportion to the growth in sales. Or a business may overstock its inventory of products, resulting in slow-moving products (that take too long to sell). Business survival depends both on making profit and controlling the cash flow outcomes of making profit. Like riding a bicycle, a business needs to keep both the cash-flow wheel and the profit wheel turning.

In the following sections, we offer brief explanations for each of the cash-flow amounts in Figure 1-2, explaining why the cash-flow amount differs from the income statement amount.

Cash inflow from sales

The reason cash inflow from sales revenue is \$250,000 less than sales revenue for the year is that the company's accounts receivable balance increased \$250,000 during the year. The balance in this asset account is the total of uncollected credit sales. The sales were recorded in sales revenue but were not collected in cash by the end of the year. In short, the business made \$250,000 in credit sales that it has not yet collected. This amount counts toward profit but won't turn into cash inflow until the customers pay for their purchases next year.

Cash outflow for products

The reason cash outflow for products is \$300,000 more than cost of goods sold expense for the year is that the business increased its inventory of products (goods) being held for sale. The inventory asset account holds the cost of products purchased or manufactured until the goods are sold, at which time the business decreases the asset account and records the cost of the items sold. The \$300,000 inventory increase was paid for during the year, but the cost of these goods will not be charged to expense until next year when the products are sold.

Cash outflow for operations

Cash outflow for operations is \$150,000 less than the amount of operating expenses for the year because the business increased its payables for these costs \$150,000 during the year. Many operating costs are not paid for immediately. The expenses are recorded when the obligation to pay becomes fixed on the business (when the business incurs the liability to pay the expense). The expenses are not paid until four to six weeks later. For example, a business records advertising expense as soon as the ads are run in the local newspaper, even though the newspaper will not be paid until weeks later.

The obligations for these expenses are recorded in liability accounts. During the year, the balances in these liability accounts increased \$150,000. The business will not pay these liabilities until next year.



Depreciation expense

Depreciation expense is a prime example of accrual-basis accounting — of recording an expense in the period benefited rather than when cash is paid out. The assets being depreciated were bought and paid for sometime in the past. These assets last many years. Thus, the cost of a long-lived asset is recorded as an investment. No expense is recorded until the business starts using the asset in its operations. The costs of these long-term or *fixed* assets are allocated over the years the assets are used. The business doesn't make a second cash payment when recording depreciation expense. Depreciation is not a cash outlay in the period the expense is recorded.

Depreciation accounting methods get rather involved, and this chapter isn't the place to go into a lengthy discussion on depreciation accounting. The main point is that a fraction of the cost of a long-lived operating asset — such as a delivery truck, a building, or a computer — is recorded as a decrease in the asset account and the amount is charged to depreciation expense. The business doesn't write a check for depreciation; no cash is involved in recording depreciation expense. Depreciation is a real expense because the long-term operating assets wear out and lose their economic usefulness. Eventually these assets are traded in, sold, or sent to the junkyard.

From the cash-flow point of view, depreciation is a zero outlay expense. In recording depreciation, the recorded cost value of the asset is decreased and the amount is charged to depreciation expense. Depreciation expense is deducted from revenue like other expenses to determine profit. But from the cash-flow point of view, there is nothing to deduct. So in Figure 1-2, the cash outflow for depreciation is zero.



Don't simply add back depreciation expense to bottom-line profit and call this amount cash flow. This practice may appear to be a convenient shortcut to finding cash flow, but it isn't. In this example, cash flow would be \$800,000 because \$600,000 net income + \$200,000 depreciation expense = \$800,000. In fact, cash flow from profit for the year is only \$400,000 because of the other factors that determine cash flow (refer to Figure 1-2). You should consider all the factors that impact cash flow from profit.

Interest expense

The cash outlay for interest in the example in Figure 1-2 is exactly equal to the interest expense for the year. No difference between the two amounts means that the business paid the exact interest that was owed on its debt during the year. Interest is one of the few expenses for which cash payments often are equal to (or very nearly equal to) the amount of expense that is recorded in the year. On the other hand, if the business had not paid all its interest that had accumulated during the period, it would record the unpaid amount in a liability account in order to pick up the full amount of interest expense for the year and to recognize its obligation to pay the additional unpaid amount of interest.



Depreciation expense versus losses from nonrecurring write-downs of assets

Depreciation expense is based on a predetermined, systematic method. When a depreciable asset is bought or constructed, its cost is recorded in an asset account. The accountant estimates its future useful life to the business and chooses a method to allocate the cost to each year of expected use. Depreciation is not a cash outlay in the year in which depreciation expense is recorded. The cash outlay occurred in its entirety when the asset was acquired.

In contrast, a business may have to record an unexpected write-down in the recorded

value of an asset. The write-down was not predetermined and is not factored according to any systematic plan. For example, a business may suffer irreparable damage to its building from an earthquake. Assuming that insurance doesn't cover this risk, the business records an entry to reduce the recorded value of the asset to zero and records a loss of equal amount. The loss is reported as an extraordinary item in the income statement. The loss reduces the profit of the business, of course, but it doesn't involve cash outlay. Like depreciation, recording the loss does not decrease the cash balance of the business.

Identifying and Reporting Basic Types of Cash Activities

Until a generation ago, explicit cash-flow information was not included in the external financial reports of businesses. Sophisticated financial statement users could do cash-flow analysis, but it was a burdensome and time-consuming process. Under pressure from financial analysts and others, the rule-making body of the accounting profession decided that henceforth a *statement of cash flows* should be included in external financial reports to supplement the income statement and balance sheet.

Cash-flow information is useful to users of financial reports, who are primarily business managers, investors, and creditors. Both public and private companies are required to include a statement of cash flows in their external financial reports. By law, publicly owned corporations must make their financial reports available to the public at large. Private companies, on the other hand, generally limit circulation of their financial reports to their investors and lenders. They treat their financial reports as confidential. Internally, businesses can report information however they want, but in general, internal accounting reports look a lot like the external financial statements of the business.

For external financial reporting, accountants divide cash flows into three groupings or types, which we discuss in the following sections. In fact, these three classes constitute the three parts of the statement of cash flows, as we explain further in Chapter 4.

Cash flow from investing activities

One group of cash flows contains the investing and “disinvesting” activities of the business during the year. As you would think, *investing* refers to the expenditure of cash for investments in different assets. Most years (except in severe downturns), businesses make new investments to replace and expand *long-term operating assets*, such as buildings, building improvements, land, machinery, manufacturing equipment, vehicles, and information-processing equipment. These cash outlays are referred to as *capital expenditures*. The term *capital* is used to stress the long-term commitment of these investments in assets that will be used in the operations of the business.

Companies also invest in intangible assets, such as patents and trademarks. A business may buy all the ownership shares or a controlling interest of another business and pay for a goodwill asset. A business may invest in marketable securities, either short term or long term. Or a business may invest in ownership instruments that are not readily marketable. We suppose a business could even invest in pork-belly futures contracts if it wanted to (and meat processors do). The law allows a business to invest in almost anything (that’s legal).



During the year, the business may sell or otherwise dispose of some of its investments. The cash inflows from these disinvestments are included in the investment category. So the category includes both cash outflows and cash inflows. The buying and selling of marketable securities can be a major source of income for a business. In contrast, long-term tangible and intangible assets that are used in the operations of a business are not sold off very often, except when the assets reach the end of their useful lives or when the business has to downsize its scale of operations.

Cash flow from financing activities

The term *financing* refers to securing capital and returning capital to its sources. We discuss capital sources in Chapters 10 and 11. Basically, the two sources of capital to a business are equity and debt. *Equity* refers to ownership capital invested in a business. For example, a business corporation issues shares of capital stock to individuals willing to put their money in the business. The business may or may not be able to pay its shareowners for the use of their money, depending on whether it makes a profit and whether it generates enough cash flow from profit to make a cash distribution. Equity

can be simple (just one class of ownership shares) or incredibly complex, and it depends on the legal organization of the business. (We discuss equity sources in Chapter 10.)

Debt refers to money borrowed from banks and other business lenders, and even credit cards used by the business. Businesses pay interest for the use of the debt capital. The debt is either paid back or renewed on the maturity date of the loan. The business signs a note payable or a similar legal instrument to the lender. (Chapter 11 explores debt in more detail.)



Interest paid on debt capital is reported as an expense in the income statement, so the bottom-line profit is after interest expense is deducted. In contrast, a cash distribution from profit that is paid to shareowners for the use of their equity capital is not treated as an expense. (Cash distributions from profit by corporations are called *dividends*.) Bottom-line net income is calculated before making distributions to shareowners. The amount of cash distributions from profit to shareowners is included in the financing category of cash flows.

Cash flow from operating (profit-making) activities

The third class of cash flow is the profit-making activities of the business. Investing and financing activities constitute only a small fraction of the total activities of a business during the year. Over 95 percent, maybe 99 percent, of the action in a business has to do with *operating activities*: making sales, acquiring products for sale, hiring employees, and all the other things that are done to make a profit.

The cash flows of the operating activities during the year can be reported the same way as the summary of cash flows shown in Figure 1-2. In fact, the authoritative rule-making body of the accounting profession prefers this method of reporting the cash flows. However, an alternative method of reporting operating cash flows is permitted, which has become the most popular method. Instead of directly reporting the cash flows of revenue and expenses, the alternative method starts with bottom-line net income and then lists several adjustments to net income in order to work down to the amount of cash flow from profit. (Chapter 4 goes into more detail.) Both ways of presenting cash flow from operating activities report the same cash flow figure; the difference is how you get there.

Putting cash-flow activities together

The change in cash during the period is the sum of the changes in the three types of cash flow:

- ✓ Cash from investing activities
- ✓ Cash from financing activities
- ✓ Cash from operating activities

For most businesses, investing activities result in a decrease in cash, which is caused by expenditures for new machinery, equipment, buildings, and other long-term operating assets. The old assets disposed of during the year don't produce much cash inflow. Financing activities can have either positive or negative cash impact, depending on whether the business raised new debt and equity capital during the period or reduced its debt and equity capital. Also, it depends on the size of cash dividends paid to shareowners from profit for the year. Ominously, all three activities can be negative, which would probably indicate serious cash-flow problems.

We end this section with a pop quiz to wrap things up: Suppose the net cash result from the investing activities of a business during the year is a \$500,000 decrease in cash. Purely by coincidence, the net cash result from its financing activities is \$500,000 increase in cash. Therefore, the net effect on cash of these two classes of cash-flow activities is exactly zero for the year (not too likely, of course). Yet the company's cash balance increased \$200,000 during the year. Is this cash increase due solely to its cash flow from operating activities for the year?

The answer is yes. In addition to cash flow from investing and financing activities, the only other source of cash to a business is from its operating (profit-making) activities. Therefore, the \$200,000 cash increase must be the cash flow from profit. The other two sources and uses of cash are a wash; the increase in one offsets the decrease in the other.

What was the company's profit for the year? Well, you can't tell from the cash-flow figure. Profit could be much more, about the same, or less than the \$200,000 cash-flow amount. In fact, the business may have recorded a loss for the year (and still have \$200,000 positive cash flow from operating activities). You have to look at the company's income statement for the year, which is based on accrual-basis accounting, to find the profit or loss for the period.

Chapter 2

Why Accrual Accounting Is Essential

In This Chapter

- ▶ Surveying accountants' four primary jobs
 - ▶ Contrasting cash-basis and accrual accounting
 - ▶ Examining how accrual-accounting numbers are reported in the balance sheet
-

When most people hear the term *accounting*, they first think of *recordkeeping* (or *bookkeeping*, which is the same thing). Accounting certainly does involve a lot of recordkeeping. Why go to the time, trouble, and expense? Recordkeeping isn't done just for the sake of keeping a detailed financial history of a business. Businesses spend money on recordkeeping because it serves the *information needs* of the business.

Every business's information needs include a multitude of financial and other types of information for operating day to day, making decisions, controlling the activities of the business, complying with various tax laws, and preparing financial statements that are essential for securing capital and reporting to the sources of its capital.

Compared with personal accounting, business accounting is much more comprehensive and standardized. Few people, for example, prepare formal financial statements, keep track of the daily balance of their credit cards, or formally list their assets. Most people simply keep a checkbook and save other receipts and documents that are needed for preparing their income tax returns. A business, in contrast, needs a comprehensive accounting system. More specifically, it needs an *accrual accounting system*, which records revenue and expenses at the time of transactions whether or not cash flow takes place at the same time. Recordkeeping through accrual accounting helps businesses keep track of profit or loss more effectively.

This chapter begins with an overview of the main functions of accounting, starting with the recordkeeping that captures and stores this vital information. We then move on to explain accrual accounting and why your business needs it (as opposed to cash-based accounting), and we close by taking a look at common accounting terms that you need to be familiar with to keep successful records of your business's transactions.

Finding Out the Four Functions of Accounting

Accountants do a lot of multitasking. They carry out the four functions described in this section — bookkeeping, management accounting, complying with tax laws, and reporting financial info — all of which have to be done well and under time constraints. Delays cause serious problems. Quite literally, a business can't continue to operate very long without these accounting functions because its managers typically would be in the dark about which bills were due for payment, the amounts of wages and salaries to pay its employees, and whether a bank loan was due.



Accountants should design a business's accounting system to fit the specific needs of the business. Frankly, in our experience, small businesses tend to be too lackadaisical in designing their accounting systems. A company's accounting system should report all detailed expenses that are needed for making decisions and keeping control over operations.

Accountants at small businesses may decide to record revenue and expenses through simple *cash-basis* accounting, which, as the term implies, means recording only cash inflows and cash outflows. Even so, the business has to be careful to distinguish its various cash inflows and outflows. For example, the business must distinguish between cash from sales versus cash from borrowing money.



Cash-basis accounting simplifies recordkeeping, but it puts serious limits on the range of information that is reported to the company's managers. And when a business uses cash-basis accounting, its financial reports may not fully report its financial condition and may not report its correct profit or loss. Cash-basis accounting is adequate only when a business conducts nearly all of its revenue and expense transactions in cash, has very few noncash assets, and has very few liabilities. *Accrual basis accounting*, which we introduce in Chapter 1 and discuss in more detail in the later section, "Examining the Nature of Accrual Accounting," offers many advantages even to very small businesses.

Keeping records (Bookkeeping)

A business can't operate day in and day out without a good recordkeeping system. Accountants capture and store information through the recordkeeping system of the business so that they can complete many critical tasks in the daily operating activities that demand up-to-date, accurate, complete, and readily available information. The lack of information can bring things to a halt or at least cause a costly delay.

Folks may not think much about these back-office activities of accountants, but they would sure notice if those activities didn't get done. On payday, a business had better not tell its employees, "Sorry, but the accounting department is running a little late this month; you'll get your checks later." And when a customer insists on up-to-date information about how much he owes to the business, the accounting department can't very well say, "Oh, don't worry, just wait a week or so and we'll get the information to you then."

An army marches on its stomach, and a business marches on information. To give you an idea of the various types of information that the recordkeeping system of a business has to gather and make accessible, consider the following tasks the accounting department of a business is responsible for:

- ✔ **Payroll:** The total wages and salaries earned by all employees every pay period, which are called *gross wages* or *gross earnings*, have to be calculated. Based on detailed private information in personnel files and earnings-to-date information, the correct amounts of individual income tax, Social Security tax, and several other deductions from gross wages have to be determined, and all this information is reported to each employee every pay period. The total amounts of withheld income tax and Social Security taxes, plus the employment taxes imposed on the employer, have to be paid to federal and state government agencies on time. Retirement, vacation, sick pay, and other benefits earned by the employees have to be updated every pay period.
- ✔ **Cash collections:** All cash received from sales and other sources has to be carefully identified and recorded, not only in the cash account but also in the appropriate account for the source of the cash received. The accounting department makes sure that the cash is deposited in the correct checking accounts of the business and that an adequate amount of coin and currency is kept on hand for making change for customers. Accountants balance the checkbook of the business and control who has access to incoming cash receipts. (In larger organizations, the *treasurer* is responsible for some of these functions.)
- ✔ **Cash payments (disbursements):** In addition to payroll checks, a business writes many other checks during the course of a year — to pay for a

wide variety of purchases, to pay property taxes, to pay on loans, and to distribute some of its profit to the owners of the business, for example. The accounting department prepares all these checks for the signatures of the business officers who are authorized to sign checks. The accounting department keeps all the supporting business documents and files to know when the checks should be paid, makes sure that the amount to be paid is correct, and forwards the checks for signing.

- ✓ **Procurement and inventory:** Accounting departments usually are responsible for keeping track of all purchase orders that have been placed for *inventory* (products to be sold by the business) and all other assets and services that the business buys, from postage stamps to forklifts. A typical business makes many purchases during the course of a year, many of them on credit, which means that the items bought are received immediately but paid for later. So this area of responsibility includes keeping files on all liabilities that arise from purchases on credit so that cash payments can be processed on time. The accounting department also keeps detailed records on all products held for sale by the business. When products are sold, the accountant determines the cost of the goods sold, which is recorded as an expense.
- ✓ **Property accounting:** A typical business owns many different substantial long-term assets collectively called *property, plant, and equipment*, including office furniture and equipment, retail display cabinets, computers, machinery and tools, vehicles, buildings, and land. Except for relatively small-cost items, such as screwdrivers and staplers, the accounting department maintains detailed records of the business's property, both for controlling the use of the assets and for determining personal property and real estate taxes.



To keep its wheels turning, a business needs a *complete* and *reliable* recordkeeping system that can organize and protect many different things: formal accounting records (mainly accounts and journals), supporting schedules, files, purchase orders, cancelled checks, correspondence, legal documents, and so on. Businesses have the choice of many customizable computer-based recordkeeping programs, and they may hire certified public accountants or certified public bookkeepers to advise in selecting, designing, and updating a system.

Giving company management the information it needs

Another main function of accounting in a business is to provide its managers with the financial information they need. This function is generally called *management accounting* or *managerial accounting*. Business managers need financial information for developing strategy and policies, planning and

constructing budgets for the coming period (assuming they do budgeting), and controlling the activities and performance of the business.

The laundry list of financial information that managers need is long and diverse, but the info falls into the following three basic categories:

- ✓ **Profit or loss performance:** Did the business earn a profit for the period or suffer a loss, and why?
- ✓ **Financial condition:** Is the business in a healthy and viable situation, or is it in trouble and facing disruption?
- ✓ **Cash flows:** What amount of cash flow was realized from profit, and what were other sources and uses of cash?

Not every manager in a business gets all three types of financial information. For example, the vice-president of production may get only cost reports for manufacturing. In designing internal financial reports for managers, accountants follow the organizational structure of the business to provide only information for the sphere of activity that the manager is responsible for. In a small business, the owner/manager may be responsible for all aspects of the business, which means she gets all types of financial information.



The three separate audiences that receive accounting reports are the *managers* of the business, *tax authorities* (principally the IRS), and the *investors* and *lenders* of the business. Internal financial reporting to managers, which tends to be more detailed as well as sensitive and confidential, is not bound to the financial statements and formats that are required in income tax returns and issued to the investors and lenders. Nevertheless, in actual practice, accountants generally use the same templates for all three audiences even though they divulge different information.



A business has to decide on the accounting methods that it will use to measure profit period by period and to record its assets, liabilities, and owners' equity. The IRS, which you know cannot be ignored, requires that most businesses that produce or sell merchandise or that have annual sales revenue of \$5 million or more use accrual, not cash-basis, accounting. (See the sidebar "IRS and accounting methods.") The cash basis of profit accounting may be adequate for certain smaller businesses, such as a barber shop, computer repair business, law firm, or real estate agency. However, for the reasons we explain in "Examining the Nature of Accrual Accounting," accrual accounting is necessary for businesses of any size and complexity.

Managers need to understand the cash-flow consequences of earning a profit. Unfortunately, accrual accounting can obscure the cash flows of revenue and expenses. This chapter isn't the place for jumping into a detailed examination of accounting reports to managers, but we do advise accountants to pay particular attention to reporting the cash flows of revenue and expense to managers in a manner they can understand. (We discuss this topic more in Chapter 4.)

IRS and accounting methods

Some people view the IRS as a blood-sucking ogre intent on harassing businesses. Actually the IRS has quite reasonable rules regarding business accounting methods for determining annual taxable income. Businesses with annual sales revenue of more than \$5 million are required to use accrual-basis accounting methods for revenue and expenses. One main exception: Personal service corporations (in which 95 percent or more of revenue is from rendering personal services) may elect to use cash accounting. Also, farmers can use cash-basis accounting. Smaller businesses (less than \$5 million annual sales revenue) can elect to use cash accounting — except for those businesses that produce, purchase, and sell merchandise. They must use accrual

accounting for inventory, cost of goods sold, and sales revenue; they can use the cash basis for other income and expenses. So they may use a hybrid accounting system that includes elements of both cash and accrual accounting.

The IRS stresses *consistency* of accounting methods year to year, which is a fundamental pillar of accounting theory and standards. Changes in accounting methods from one year to the next are anathema — to be avoided unless absolutely necessary. The IRS does allow changes in accounting methods, but a business has to jump through hoops to do it. See IRS Publication 538 *Accounting Periods and Methods* for more details. To download this publication, go to www.irs.gov and navigate to forms and publications for businesses.

Complying with tax laws

A saying in business is that if something *can* be taxed, it *is* taxed. Even in a relatively small business with just a few employees, one accountant can keep busy just filing all the tax returns and forms that are required. The federal income tax is the 500-pound gorilla, but many other types of taxes are imposed on businesses.

Businesses that are employers pay taxes on their payroll, including Social Security, Medicare, and unemployment taxes. Some states levy a tax on inventory (goods being manufactured and products being held for sale). Most states and local jurisdictions tax the real estate owned by the business. International trading has its own types of taxes, such as import and export duties. Then they have to deal with sales taxes, for which a business acts as a collection agent for the taxing authority. Furthermore, a business has license fees to pay, and some companies have to pay franchise fees.

The accounting department has the responsibility of keeping up with changes in all the tax laws the business is subject to and filing all the forms and reports required under the various tax laws and regulations. Failure to pay the proper amounts of taxes or filing tax returns after their deadlines can result in heavy fines and penalties. Furthermore, the accounting department is expected to keep managers informed about major changes in tax laws and to advise them on tax strategies.



The sticky business of tax evasion

You probably are aware that some businesses engage in illegal practices to evade taxes, and we don't mean just the federal income tax. One well-known tactic for evading income tax is *sales skimming*, in which the manager or owner doesn't record all sales revenue in the accounts of the business. Instead, some amount of the cash flow from sales goes directly into the pocket of the owner/manager without being recorded on the books. Another example of illegal evasion of taxes concerns payroll taxes. A business may deliberately misclassify certain persons as being independent contractors when in fact they are employees, in order to avoid paying Social Security and Medicare employer taxes on their salaries.

Most accountants work with the implicit assumption that the business is not engaging in illegal tax-evasion tactics. They assume that the business managers want all revenue to be recorded and want all expenses to be legitimate costs of operating the business, which may not be entirely true, of course. The accountant should be careful regarding whether he could be held liable as a coconspirator in a tax-evasion scheme. And business investors and lenders should understand that when a business engages in tax evasion, its financial reports as well as tax returns are fraudulent and misleading. Furthermore, all involved parties should be aware of the risk that tax authorities may find out the business, which can lead to major penalties and collapse.

Reporting financial information

Financial reporting refers to the preparation and delivery of reports about a business's financial activities. Financial reports that accountants prepare for equity shareowners and debt holders consist of certain basic financial statements that are accompanied with footnotes and other disclosures. We explore financial statements in depth in Chapter 3 but give you an overview in the following sections.

Accountants also have to decide how to present financial information to managers, how often to present it (daily, monthly, quarterly), and who gets what information. (See the previous section "Giving company management the information it needs" to review the types of financial information that may need to be reported.) Different managers get different information based on their sphere of responsibility. The top-level president and chief executive get global information for the business as a whole. Likewise, the board of directors should receive high-level comprehensive financial reports for the business as a whole.

Financial statements

Following are the three primary financial statements, prepared by accountants, that are included in the financial report of a business:

- ✔ **Income statement:** This statement (commonly called the *P&L* within a business) reports total sales revenue and other income for the period and expenses and losses for the period. The total amount of expenses and losses is deducted from total revenue to get the bottom line, which is the net profit or loss for the period.
- ✔ **Balance sheet:** This statement lists the assets of the business at their recorded values, the business's liabilities, and the amounts invested from its equity shareowners and accumulated retained earnings (profit earned but not distributed to equity shareowners).
- ✔ **Statement of cash flows:** The cash flow from operating activities (that is, profit-making activities) and other sources and uses of cash during the period are reported in this financial statement.



Don't forget that the three financial statements are supplemented with footnotes and other disclosures in the financial report. Not all relevant information can be contained within the boundaries of the three financial statements. Each financial statement is somewhat of a skeleton of information, not a full explanation.

External reporting

Accountants have to provide financial reports to people or organizations outside the business that have provided the business with *capital*, money to acquire the various assets for operating and achieving the business's objectives. Capital comes from two basic sources: debt and equity.

Debt is money loaned to the business by banks, other types of financial institutions, and individuals. Debt has a finite life; it has to be paid at maturity (or rolled over and renewed for an additional period). Interest has to be paid on debt, so it's accounted for as an expense of the business.

Equity refers to the ownership capital of a business, which is divided into shares (for example, capital stock shares of a corporation). Equity capital is committed for the long run; the business has no obligation to redeem or return equity capital to its shareowners. (Mutual funds are an exception to this rule.) The shareowners take the risk that a business may suffer a loss (which diminishes their equity in the business), may not earn enough profit to justify the amount of capital they have invested in the business, or may not generate enough cash flow from profit to allow the business to distribute some of its profit to the equity shareowners of the business.

The equity shareowners and debt holders of a business demand to be kept informed about the financial performance and condition of the business. Therefore, a business prepares financial reports for its sources of capital.



The equity shareowners and debt holders who receive financial reports from a business are treated as outsiders who are not active members of management. They're entitled to fair and adequate disclosure about the financial performance and condition of the business, but they're not entitled to all the information that the managers of the business know. Most recipients of an annual financial report, for instance, can't get back to the accountant and ask for more information or for a different explanation. However, members of the board of directors, acting in their capacity as representatives of all equity shareowners, as well as major lenders or shareowners, can usually ask the accountant for more explanation about what's in the standard financial report. But in general, financial reports are presented on the newspaper model — only one paper for all readers is released outside the business.

Businesses, contrary to popular belief, do not keep two sets of books. The formats in externally reported financial statements of a business are generally the same frameworks used for internal accounting reports to its managers. Businesses rarely adopt a completely different format and structure for the internal financial statements to their managers. The profit or loss reported in the financial report issued to shareowners is the same number that managers use inside the business. However, managers have a better idea regarding to what extent revenue and expenses have been massaged (manipulated) to boost or dampen the profit number that is reported outside the business.

Examining the Nature of Accrual Accounting

As we mention in Chapter 1, the term *accrual* is not a particularly helpful word for understanding accrual accounting. *Accrual* suggests accumulation, accretion, addition, or growth. These meanings are wide of the mark. *Accrual accounting* refers to the recording of revenue and expenses when these economic events take place, whether or not cash flow takes place at the same time.



A good example of the difference between accrual and cash accounting is when a business makes a sale on credit. The sale takes place today, but the customer doesn't pay the business until, say, 30 days later. The products and/or services are delivered to the customer at the time of sale. Accrual accounting records the sale immediately and also records the cost of goods sold at the same time so that the expense is matched with the sales revenue in the same period. Cash-basis accounting waits to record the sales revenue until the cash is collected from the customer. That type of accounting gives good numbers for cash flows but poor numbers for profit (or loss).

Uncovering the inadequacy of cash-basis accounting

In cash accounting, sales revenue is recorded when cash is received, and expenses are recorded when paid. Profit or loss equals the net increase or decrease in cash from making sales and paying expenses. Simple? Yes. Correct? No. For one thing, profit shown by using the cash method depends on when you write checks for expenses. You can improve profit by simply not writing checks to pay for certain expenses until next year.



Accrual accounting provides a more realistic picture of revenue and expenses. You get a better matching of expenses against revenue to determine profit or loss. Accrual accounting captures the economic reality of what's going on. Cash-basis accounting looks only at what's going on in the cash account. The business of making profit involves much more than just cash flows — although cash flows are very important, of course.

Cash accounting is tolerated as “good enough” for small businesses that don't sell on credit and don't sell products from inventory. The cash-basis numbers for sales revenue and expenses are reasonably close to the accrual-basis numbers for these businesses, assuming that the business doesn't deliberately time cash payments for expenses in order to manipulate profit for the period. The IRS allows, but does not require, certain small businesses to use cash accounting (see the sidebar “IRS and accounting methods”).

Though the accrual-accounting method is best for measuring profit for the period, it comes with some additional baggage, which we examine in the next section.

Recognizing accrual accounting in financial reports



Financial report readers are entitled to assume that accrual accounting is being used to prepare the financial statements in the report unless stated otherwise. In other words, accrual accounting is taken for granted unless the financial report makes clear that some other basis of accounting is being used. (We explain financial statements in Chapter 3.)

You can't tell whether accrual accounting is being used by a business from its income statement. Both the cash- and accrual-accounting methods report sales revenue and expenses in the income statement. (Different amounts are reported between the two accounting methods). If you want to know for sure whether accrual accounting is being used, look in the balance sheet of the business. This statement of financial condition, which we discuss in more

detail in the following section, lists the assets and liabilities of the business (and other information as well).

Cash-basis accounting — in which only cash transactions are recorded for sales and expenses — doesn't record several assets and liabilities that are employed in accrual accounting. Accrual accounting uses several noncash asset and liability accounts in recording sales and expenses. These additional elements “complicate” the balance sheet. On the other hand, the additional assets and liabilities improve the informational value of the balance sheet and give a superior measure of profit or loss.

The telltale balance sheet items that reveal the use of accrual accounting in recording revenue and expenses include the following assets and liabilities. Only their names are mentioned here. The next section explains these assets and liabilities in the context of a balance sheet example.

✓ **Assets:**

- Accounts receivable
- Inventory
- Prepaid expenses
- Property, plant, and equipment

✓ **Liabilities:**

- Accounts payable
- Accrued expenses payable



When you see these assets and liabilities in a company's balance sheet, you know that it is using accrual accounting, because they're the devices and means to carry out accrual accounting. The accounts are necessary to record revenue and expenses when the transactions occur, regardless of when cash flows take place.



Even when the financial reports tell you that accrual accounting is being used, they don't reveal how *well* it's being done by the business. A business may be cutting corners regarding how it applies accrual-accounting principles. For instance, a business should, according to accrual-accounting principles, record the accumulation of vacation and sick pay earned by its employees each pay period. However, the business may wait to record this cost until employees are paid when they take sick leave or their vacations. The business is using the cash method for this particular expense.

Many businesses do not strictly observe every principle of accrual accounting. They take practical shortcuts to reduce the amount of entries that have to be recorded. Such deviations from accrual accounting are understandable, and as long as the amounts involved aren't significant, accountants and CPA auditors don't object to these departures from the letter of the law. But a business can go too far and stray off the path of acceptable accrual-accounting

standards. One troublesome area, for instance, concerns expenditures on minor renovations and refurbishment of buildings. The amount should be recorded in a property, plant, and equipment asset account and then gradually charged to depreciation expense over the estimated future useful life of the improvement. But a business may simply record the cost immediately to expense instead of going to the trouble of recording it in an asset account and depreciating the cost over many years.

Reporting Assets and Liabilities in the Balance Sheet



The assets and liabilities of a business are reported in a financial statement called the *balance sheet*, which lists the total assets on one side and balances them on the other side with the total liabilities and owners' equity. (It is also called the *statement of financial condition* or *statement of financial position*.) We explain the balance sheet and the other financial statements issued by businesses in Chapter 3. In this section, we focus on the key assets and liabilities that are used in accrual accounting.

Balance sheets follow certain rules regarding the placement of assets and liabilities. On the asset side, cash is listed first, and then accounts receivable, inventory, and so on. Accounts payable and accrued expenses payable are placed before other liabilities. Figure 2-1 shows an example of a balance sheet with cash and the other assets and the liabilities that are used to record revenue and expenses shown “in place” (that is, in their typical positions in a balance sheet).

Balance Sheet at End of Most Recent Year

(Dollar amounts in thousands)

Figure 2-1: Accrual- accounting assets and liabilities in a balance sheet.	Assets		Liabilities & Owners' Equity	
	Cash	\$300	Accounts Payable	\$200
	Accounts Receivable	\$550	Accrued Expenses Payable	\$240
	Inventory	\$750	Debt	\$800
	Prepaid Expenses	\$40	Owners' Equity	\$1,200
	Property, Plant, and Equipment	\$800	Total Liabilities & Owners' Equity	\$2,440
	Total Assets	<u>\$2,440</u>		

The assets and first two liabilities in the Figure 2-1 balance sheet are explained briefly as follows:

- ✔ **Accounts receivable:** When a sale is made on credit, this asset account is increased and sales revenue is increased. Cash accounting involves no accounts receivable asset account because sales on credit are not recorded until cash is received from customers.
- ✔ **Inventory:** The cost of products manufactured or purchased is entered as an increase in this asset account, and remains in the asset account until the products are sold, at which time the cost of the items sold is removed from the asset and is recorded as cost of goods sold expense. No inventory account is used in cash accounting.
- ✔ **Prepaid expenses:** A business makes certain expenditures today for operating costs that will benefit several future months. One example is a 12-month fire-insurance policy on a building and its contents. Such paid-in-advance amounts are first entered in this asset account. The asset account is gradually decreased month by month over the beneficial life of the prepayment and the amounts are recorded in an expense account. Cash accounting charges the entire cost of the insurance policy immediately to expense. Cash accounting doesn't involve a prepaid expense asset account.
- ✔ **Property, plant, and equipment:** This asset group includes buildings and land, land improvements (parking lots and landscaping), machinery, tools, office equipment, computers, and vehicles. These assets are used by a business for many years. The assets are held not for sale but for use in the operations of the business; hence the name *fixed assets*. The cost of these assets (except land) is spread over the estimated useful lives of the assets. Each period a fraction of the cost is taken out of the asset and entered in the *depreciation* expense for the period. In cash accounting the costs of such assets are recorded to expense immediately and, therefore, no such assets are recorded.
- ✔ **Accounts payable:** This *liability* account is used to record unpaid expenses of the business. When a business gets an invoice for an operating cost — such as a utility bill, a bill from its lawyers for services provided, or from the local TV station for ads that have already run — it records the cost in this liability, and the amount is entered in the appropriate expense account. When a bill is paid, cash is decreased and this liability account is decreased. In cash accounting, no such liabilities are recorded. Expenses are not recorded until actually paid.
- ✔ **Accrued expenses payable:** Certain operating costs are recorded that will not be paid until a month or more later. An expense account is increased and this liability is increased. One example is the estimated cost of future warranty and guarantee work on products that have already been sold. Another example is the accumulated amount of interest that has been earned by the lender but not yet paid by the business. In cash accounting, this liability isn't recorded; expenses are recorded only when they're actually paid.

In Figure 2-1, the balance sheet is in balance because it includes the company's sources of capital. We explain in the earlier section "External reporting" that business capital comes from two basic sources: interest-bearing debt and owners' equity. We show just one account labeled *debt* for all the company's interest-bearing debt, but in actual balance sheets, short-term debt is separated from long-term debt. Also, we show just one account for owners' equity. As we explain in Chapter 3, owners' equity is actually divided into two (or more) different accounts. (If you want to see a more complete and less simplified balance sheet, flip to Chapter 3.)



Debt and owners' equity accounts aren't involved in recording revenue and expenses. The cash inflow from borrowing money isn't revenue, and the cash outflow for paying down a debt balance isn't an expense. Keep in mind, however, that the interest on debt is recorded as an expense. Likewise, when owners invest money in a business, the cash inflow isn't revenue, and when a business returns equity capital to its owners, the cash outflow isn't an expense. At the end of every year the final amount of profit (or loss) for the year is entered as an increase (or decrease) in the owners' equity account *retained earnings*.

The Figure 2-1 example doesn't have any extraneous assets or liabilities. All the assets and the first two liabilities are directly involved in the profit-making operating activities of the business. These several balance sheet accounts are increased or decreased in recording revenue and expenses. Knowing the balance sheet accounts that are used in recording revenue and expenses is extremely important for understanding cash flow from profit because changes during the period in the noncash assets and liabilities that are used in recording revenue and expenses determine the cash flow from profit (operating activities) for the period.

For example, suppose accounts receivable increases \$100,000 during the year. Using accrual accounting, during the year the business records \$100,000 sales revenue that it hasn't yet collected in cash. Accounts receivable increases \$100,000 because the cash hasn't arrived yet. Sales revenue, which is used to measure profit, is \$100,000 higher than the cash inflow from customers during the year. (If you want to find out more about cash-flow analysis of profit, turn to Chapter 4.)

Chapter 3

The Big Three Financial Statements

In This Chapter

- ▶ Understanding why businesses need financial statements
 - ▶ Finding your way around the balance sheet
 - ▶ Walking down the income statement
 - ▶ Taking a first stab at the statement of cash flows
-

One of the main functions of accountants in a business is to prepare its *financial statements*. This chapter takes a look at the three primary financial statements of a business: the balance sheet, the income statement, and the statement of cash flows. Together, these three documents provide a comprehensive summary of the financial condition and performance of the business. The *income statement* reveals whether the business earned a profit or suffered a loss during the period. The *balance sheet* stacks up the company's assets against its liabilities at the end of the period. The *statement of cash flows* explains the difference between bottom-line profit and the cash flow from profit-making operations, and the business's other cash sources and uses during the period.



Which of the three financial statements is most important? If you had time to read only one, which one would give you the best understanding of the business's situation? Accountants would find these questions rather odd. The three financial statements fit together like pieces in a puzzle. Profit performance may look good in the income statement, but the balance sheet may reveal that the business is on the edge of bankruptcy. And if you didn't read the statement of cash flows, you might not notice that the business didn't generate much actual cash during the period. In short, the three financial statements are designed to be read in conjunction with one another. You've heard the expression, "It takes two to tango." With financial statements, tangoing takes all three.



The accountant who prepares the financial statements of a business needs to be knowledgeable and up-to-date on the “rules of the game.” The content, format, and reporting of financial statements are governed by generally accepted standards. Most important, financial statements should be based on correct accounting methods. And it should go without saying that financial statements should be fair and honest. As you probably suspect, financial statements can be deliberately false and misleading. Some of the biggest business scandals in recent memory involved fraudulent financial statements (does Enron ring a bell?).

In this chapter we focus first on the balance sheet. It’s the “financial anchor” of a business. Revenue and expenses pass through the balance sheet, as do cash flows. The assets, liabilities, and owners’ equities reported in a balance sheet are called *real accounts*. The amounts reported in the other two financial statements are total flows for the period, whereas the amounts in the balance sheet are net balances (excess of increases over decreases) at the end of the period. After examining the balance sheet, we next look into the structure of the income statement from the top line to the bottom line and see how revenue and expenses are connected with the balance sheet. Finally, we introduce the statement of cash flows, which is more fully explored in Chapter 4.

Why Financial Statements Are Essential

Are financial statements really necessary? Must a business prepare regular financial statements? Is it a crime not to prepare financial statements? For most businesses, the answer to these questions is yes. (Well, strictly speaking, you may not be breaking the law if you don’t prepare financial statements, but you get our meaning.) However, you may be surprised to hear that many small privately owned businesses that use cash-basis accounting don’t bother to regularly prepare financial statements. We were surprised to see a 2003 study by the U.S. Federal Reserve System and Small Business Administration that found that the large majority of small business firms don’t use financial statements for managing the business.

Being accountants, we believe in the importance and usefulness of financial statements. But preparing financial statements costs some money — the business has to hire a competent accountant and have an adequate accounting system to prepare financial statements, so many small, private businesses don’t go to the trouble. To keep track of the profit or loss performance of the business, the owner/manager may simply look at his or her monthly bank statement to track profit — after sorting out nonrevenue sources of cash and non-expense uses of cash. If cash increases, then according to cash-basis accounting the business made a profit. (We explain cash and accrual accounting in Chapter 2.)

However, modest-size and larger businesses need to prepare financial statements on a regular basis. They use accrual accounting to capture all the information needed for preparing financial statements. Financial statements are needed for the following reasons:

- ✔ **Business income tax returns require income statement information (to determine taxable income) and a balance sheet.** The accounting system has to be designed to record and accumulate this financial information (as we explain in Chapter 2).
- ✔ **The managers of a business need the financial information in the statements for making decisions and controlling the financial affairs of the business.** They can't make decisions and identify problems without a broad range of financial information, and financial statements provide that key information in a reasonably compact and summarized format — not all the information they need, but a good part of the information.
- ✔ **Sources of debt capital and major creditors typically want to see the financial statements of a business before they are willing to loan money to the business or to extend other forms of credit to a business.** Money put into a business by lenders and investors is at risk to one degree or another. Lenders want to see the latest financial statements to assess the risk of the business defaulting on the interest and debt repayment requirements of their loans. Investors want the information to assess the ability of the business to stay financially healthy and to earn a return on their capital invested in the business.
- ✔ **Financial statements are the bedrock information for business valuation.** When the owners of a business put it up for sale, or when a company is approached with an offer to buy the business, its financial statements are the main source of information to both sides.
- ✔ **“Outside” shareowners use financial statements to keep informed about their investment in the business.** The larger a business becomes, the more likely it is that one or more of its equity owners (shareowners) are not active members of the management team running the business. Sending them financial statements is the most practical way of communicating with them.

Financial reports are also used for several other secondary purposes in business. For example, financial statements serve as the financial archives of the business and are its historical financial trail. And many companies operate a franchise, and the contract may require that financial statements be provided to the franchisor.

Who gets financial statements and why



The managers of a business are the first people to get the business's financial statements, which they use for decision making and controlling the financial performance and condition of the firm. However, exactly which managers get which financial statements depends on the organizational structure of the company. Generally, the higher up you go in the management hierarchy, the more likely a manager is to get all three financial statements, or at least the balance sheet and income statement. We explain how managers analyze their financial statements in Chapters 5, 6, and 7.

Beyond its managers, who else get the financial statements of a business? The first thing to keep in mind is that the financial statements of a business are *privileged information*. A business doesn't publish its financial statements in the local newspaper or put a copy in the library. You could call a business and ask for a copy of its latest financial report that includes its financial statements, but don't expect the business to comply — unless the business is a *publicly owned* corporation.

Roughly speaking, businesses fall into two groups: privately owned companies and publicly owned corporations. The availability of financial information to the public depends largely on which type of business it is.

✔ **Publicly owned companies:** The ownership shares of public companies are traded in markets open to the public, such as the New York Stock Exchange and NASDAQ. Stockholders of a public company, such as IBM, GE, or Apple, are entitled to receive a copy of the company's latest financial report. Public corporations also have to make regular filings with the Securities and Exchange Commission (SEC), which is the federal agency that oversees the federal laws that govern the original issue and subsequent trading in corporate securities (bonds and stocks).

In addition, public companies are required by law to make their financial reports available to the public at large. Most public companies today put their financial reports online, so you can go to their websites and retrieve their financial reports. Also, mutual funds and other financial institutions are subject to federal laws; their financial reports are available to anyone who wants to see them.

✔ **Privately owned companies:** These businesses are a different kettle of fish altogether regarding the circulation of their financial reports. Generally speaking, a private business is one that isn't covered by federal securities law. A private business has to be careful regarding whether or not federal (or state) laws apply to reporting its financial statements.



If not required by specific legal requirements, private businesses generally limit the distribution of their financial statements to their current shareowners and lenders. Usually, though not always, banks and other sources of debt capital ask to see the financial statements of a private business in the loan-application process. The loan may or may not include a provision that the business provides up-to-date financial statements on a regular basis over the life of the loan. In addition, a private company may release particulars about its business to credit-rating agencies and in response to business surveys by state agencies, local business groups, and academics doing research.

Who doesn't get financial statements and why

Think about range and number of individuals and other businesses that a company deals with. By and large, a private business doesn't send its financial statements to any of these people or businesses. A private business certainly doesn't send a copy of its financial statements to its competitors, but it also doesn't release its financial statements to customers or vendors.

In fact, a private business doesn't even provide its financial statements to its own employees, who obviously have a stake in the stability of the company. On the other hand, a private business may have a profit-sharing plan for its employees, in which case it releases some information about its profit performance to its employees. Even in this situation, a private company generally doesn't provide balance sheet or cash-flow information to its employees who are participating in its profit-sharing plan.



Overall, most private businesses keep their financial statements private and away from prying eyes of those who may want to take advantage of some weakness or vulnerability of the business revealed in its financial statements. Private companies take the attitude that people who want to see financial statements are up to no good and that sharing the statements would only harm the business. This attitude may seem a little paranoid, but it's undeniable that many private businesses have weaknesses that would be noticed by someone reading their financial statements.

The restricted availability of the financial reports of private businesses contrasts sharply with the open distribution of financial reports by public businesses. As we explain in the preceding section, public companies make their financial reports available to the public; anyone can get their financial reports. And public companies provide financial reports to their lenders and shareowners, of course. In addition, public companies must file financial reports with the Securities and Exchange Commission (SEC). So the financial problems of these companies are more out in the open. We should add, however, that many public companies resort to inadequate and opaque disclosure in their financial reports to obscure their problems.

Facing Off: The Balance Sheet

The *balance sheet* shows how a company's assets and liabilities stack up at the end of the period, as well as the sources of its owners' equity. Balance sheets are presented either in a horizontal (landscape) layout, with assets on the left and liability and owners' equity on the right, or in a vertical (portrait) layout, with assets on top and liability and owners' equity below. Segregating assets from liabilities and owners' equity indicates a face-off of sorts: Liabilities and owners' equity have claims and rights against the assets. Cash and assets that will be converted into cash in the future are used to satisfy the claims of liabilities and shareowners.

We present a prototype balance sheet with a horizontal layout in Figure 3-1.

	At Close of Year Just Ended	At Close of Preceding Year		At Close of Year Just Ended	At Close of Preceding Year
Assets			Liabilities & Owners' Equity		
Cash	\$2,345,675	\$2,098,538	Accounts Payable	\$2,537,232	\$2,180,682
Accounts Receivable	\$3,813,582	\$3,467,332	Accrued Expenses Payable	\$1,280,214	\$1,136,369
Inventories	\$5,760,173	\$4,661,423	Income Tax Payable	\$58,650	\$117,300
Prepaid Expenses	\$822,899	\$770,024	Short-Term Debt	\$2,250,000	\$1,765,000
Total Current Assets	\$12,742,329	\$10,997,317	Total Current Liabilities	\$6,126,096	\$5,199,351
Property, Plant, and Equipment	\$20,857,500	\$18,804,030	Long-Term Debt	\$7,500,000	\$5,850,000
Accumulated Depreciation	(\$6,785,250)	(\$6,884,100)	Total Liabilities	\$13,626,096	\$11,049,351
Cost less Accumulated Depreciation	\$14,072,250	\$11,919,930	Capital Stock (422,823 and 420,208 shares)	\$4,587,500	\$4,402,500
Total Assets	\$26,814,579	\$22,917,247	Retained Earnings	\$8,600,983	\$7,465,396
			Total Owners' Equity	\$13,188,483	\$11,867,896
			Total Liabilities and Owners' Equity	\$26,814,579	\$22,917,247

Figure 3-1:
A balance
sheet
example.

Strolling through the balance sheet

If you count the number of assets, liabilities, and owners' equity in the Figure 3-1 balance sheet example, the total comes to 13 accounts. Subtotals and totals are not included in this count. Compared with most actual balance sheets, this number of accounts is a little low; according to our experience, a typical balance sheet reports roughly 15 to 20 accounts. But for the purposes of this example, we keep it simple by not jamming in too many accounts. For instance, we don't include an asset account for investments or for loans to employees. We also omit "other assets," which many balance sheets include to cover who knows what.



The question concerning how many accounts are included in a balance sheet raises a very important issue. How much detail should a balance sheet disclose about the company's assets and liabilities? For example, the accounts receivable asset account can include amounts seriously overdue from customers, which raises the question whether the past-due balances will be collected in full. Should the overdue amounts be reported in a separate asset account?

The property, plant, and equipment asset account includes the cost of the land owned by the business. The cost of land is not depreciated, whereas the costs of the other assets in this balance sheet account are depreciated. Should the cost of land be reported separately in the balance sheet? Usually it isn't.



The accountant faces many disclosure questions in preparing a balance sheet. On the one hand, a financial statement should provide *adequate disclosure*. On the other hand, too much detail can defeat the very purpose of a financial statement. A balance sheet with 40, 50, or more accounts becomes unwieldy and takes too much time to read. The accountant must compromise between reporting too much information versus too little, which can be a tough call. Furthermore, in many situations, the managers and directors of a business intervene and put pressure on the accountant not to disclose certain information that would make the business look vulnerable or reveal losses from bad decisions. So the accountant “buries” the negative information in one of the accounts in the balance sheet without calling attention to it.

One of the calls an accountant has to make is how to treat accumulated depreciation on property, plant, and equipment. In the Figure 3-1 balance sheet example, the accumulated depreciation account balance is deducted from the balance of the property, plant, and equipment asset account. Accumulated depreciation is a *contra* account, meaning its negative balance is subtracted from the positive balance of its companion account. Original historical costs are recorded in the property, plant, and equipment asset account, and the depreciation expense recorded each year is accumulated in the contra account. The *book value* of these long-term operating assets (also called *fixed assets*) is the net amount after deducting accumulated depreciation. In the example, the book value of the company's property, plant, and equipment assets is \$14,072,250 at the close of the year just ended. This is the amount included in the \$26,814,579 total assets of the business at that date.



Some businesses report only one line for their property, plant, and equipment assets, which is the net amount after deducting the accumulated depreciation on the assets. The original costs of the assets and the accumulated depreciation on the assets are relegated to the footnotes that accompany the financial statements of the business. So rather than the three lines for these long-term assets, shown in Figure 3-1, only the following line is reported:

Property, Plant, and Equipment, net of Accumulated Depreciation
\$14,072,250

This alternative illustrates the desire to keep the balance sheet as brief as possible and include only truly relevant information. Is reporting original cost and accumulated depreciation really necessary? That's the \$64,000 question. Do readers of financial reports really need to know the original costs and accumulated depreciation of a company's long-term operating assets? Would their assessment of a company's financial condition be any different if only the book value (net of accumulated depreciation) is reported in the main body of the balance sheet?

Accountants don't object to reporting only one line for a company's property, plant, and equipment (book value net of accumulated depreciation). This alternative doesn't violate generally accepted financial reporting standards. But at the same time, most accountants are probably a little uncomfortable with this alternative and prefer that both original cost and accumulated depreciation be included in the balance sheet. In the old days, the prevailing practice was to report both original cost and accumulation depreciation. Old habits die hard. Accountants know that the newer method of reporting just one line for cost minus depreciation is okay, but accountants are generally conservative and prefer to stick to traditional ways in financial reporting.

Accountants do not allow *offsetting*, or netting off a liability against a related asset. It's a definite no-no. For instance, the amount of accounts payable for inventory purchases is never deducted from the cost balance of the inventories asset account with only the net difference reported. Long-term debt may have a mortgage on the property, plant, and equipment of a business. The debt is never deducted from the balance of the assets.

Putting accounts in their right places

Assets, liabilities, and owners' equity components are grouped into certain classes in a balance sheet. Liabilities are not intermingled with assets, nor are owners' equity accounts. These three basic types of accounts are clustered together in their own neighborhoods.

Assets and liabilities are separated into current and longer-term categories. *Current* basically means one year or less, although the technical rule for this classification doesn't put a strict and definite time limit on what's reported as current. In our balance sheet example, total current assets and liabilities equal \$12,742,329 and \$6,126,096, respectively. We explain in Chapter 5 that current assets are compared with current liabilities to get an important indicator of the short-term solvency of the business.

The Figure 3-1 balance sheet example includes 13 accounts for assets, liabilities, and owners' equities. In addition, subtotals and totals take up seven lines. The subtotals for current assets and current liabilities are always presented. The total of assets on the one side and the total of liabilities plus owners' equity on the other side are always given. Otherwise, reporting practices vary somewhat. For instance, Figure 3-1 includes a subtotal for all liabilities (\$13,626,096). Many balance sheets do not include this line, which is acceptable.



When you see that total assets exactly equals the total of liabilities and owners' equity, you are reassured that the accounting system of the business must be okay — the books are in balance. However, even when the books are in balance, serious accounting errors or even outright accounting fraud can be taking place, resulting in a balance sheet that is seriously misleading.

Most balance sheets are presented in a two- or three-year comparative format so that readers can compare the balances a year and two years ago with the balances at the end of the most recent year. The Figure 3-1 example is a two-year presentation. Notice, however, that the changes in each account are not included in the Figure 3-1 balance sheet example. The changes can be included but are not in most financial reports.



The account balances in a balance sheet can be rounded off to the nearest thousand, or nearest million for very large businesses. So the balance of cash at the close of the year just ended can be reported as \$2,346 thousand (rounded). Rounding off account balances is fairly common. It puts less strain on the eyeballs. No one raises any objection to rounding off.

Figure 3-2 is the same example as in Figure 3-1 except that the dollar amounts are rounded to the nearest thousand and changes in the accounts during the year, as well as changes in the subtotals and totals, are included. (Note that this balance sheet is in the vertical format — assets on top and liabilities and owners' equity on bottom.)

A balance sheet can be prepared at any point in time (assuming that the company's accounting system is up-to-date). However, balance sheets take time to assemble and to make available in print form or put online. Generally, a business doesn't prepare a balance sheet any more often that it has to. The standard time for preparing a balance sheet is at the close of business on the last day of the profit period. Profit (or loss) is reported in the income statement (see the later section "Making Profit: The Income Statement"). If, for example, the income statement is for the year ending September 30, 2012, the balance sheet is prepared as of midnight on that date.

Dealing with the limitations of the balance sheet



Financial statements don't include interpretative comments or indicators of what's most important. The premise is that financial statements "speak for themselves." Or, rather, we should say that the financial statements are presented on the premise that readers know how to understand and interpret financial statements. Financial reporting assumes that the readers of these accounting statements are persons who are fairly knowledgeable about business, financial terminology, and accounting methods. Quite a presumption, isn't it?

<i>Dollar amounts in thousands</i>	At Close of Year Just Ended	At Close of Preceding Year	Change During Year
Assets			
Cash	\$2,346	\$2,099	\$247
Accounts Receivable	\$3,813	\$3,467	\$346
Inventories	\$5,760	\$4,661	\$1,099
Prepaid Expenses	\$823	\$770	\$53
<i>Total Current Assets</i>	<u>\$12,742</u>	<u>\$10,997</u>	<u>\$1,745</u>
Property, Plant, and Equipment	\$20,858	\$18,804	\$2,054
Accumulated Depreciation	(\$6,785)	(\$6,884)	\$99
<i>Cost less Accumulated Depreciation</i>	<u>\$14,073</u>	<u>\$11,920</u>	<u>\$2,153</u>
<i>Total Assets</i>	<u><u>\$26,815</u></u>	<u><u>\$22,917</u></u>	<u><u>\$3,898</u></u>

Figure 3-2:**Liabilities & Owners' Equity**

An alternative balance sheet layout that includes changes during the most recent year, with balances rounded to the nearest thousand.

Accounts Payable	\$2,537	\$2,181	\$356
Accrued Expenses Payable	\$1,280	\$1,136	\$144
Income Tax Payable	\$59	\$117	(\$58)
Short-Term Debt	<u>\$2,250</u>	<u>\$1,765</u>	<u>\$485</u>
<i>Total Current Liabilities</i>	<u>\$6,126</u>	<u>\$5,199</u>	<u>\$927</u>
Long-Term Debt	<u>\$7,500</u>	<u>\$5,850</u>	<u>\$1,650</u>
<i>Total Liabilities</i>	<u>\$13,626</u>	<u>\$11,049</u>	<u>\$2,577</u>
Capital Stock (422,823 and 420,208 shares)	\$4,588	\$4,403	\$185
Retained Earnings	<u>\$8,601</u>	<u>\$7,465</u>	<u>\$1,136</u>
<i>Total Owners' Equity</i>	<u>\$13,189</u>	<u>\$11,868</u>	<u>\$1,321</u>
<i>Total Liabilities and Owners' Equity</i>	<u><u>\$26,815</u></u>	<u><u>\$22,917</u></u>	<u><u>\$3,898</u></u>

You should understand that a balance sheet reports *recorded values*. The dollar amounts you see in the asset, liability, and owners' equity accounts are the result of the amounts recorded in these accounts. Some of the balances are the result of recent transactions and some are from transactions that took place years ago. However, the balance sheet doesn't disclose how old the balances in each account are. You, the reader, are expected to understand that some balances are driven mainly by recent activities and other balances include amounts recorded 5, 10, or 20 years ago (or even longer).



The balance sheet does not report up-to-date market values for its assets. (A few exceptions exist, but they don't apply in our example.) For instance, the assets included in property, plant, and equipment are the original costs of these resources, which very well may be considerably lower than current replacement values of the assets.



A balance sheet also does not report what the business would be worth if it were for sale, either as a thriving going concern or as an entity that might be liquidated. In other words, the *net worth* of the business reported in its balance sheet — its assets minus its liabilities — may or may not be a good indicator of what a buyer would be willing to pay for 100 percent ownership of the business. The business may be worth much more than the book value of its owners' equity, or much less. Until the shareowners actually put their shares up for sale, the business's worth is anyone's guess. (For more on business valuation, you can go to our book *Small Business Financial Management Kit For Dummies* [John Wiley & Sons, Inc.].)

Every day that a company is open for business, it engages in transactions and carries on operating activity of all sorts. All these transactions and activities are recorded in the balance sheet accounts of the business. Therefore, the balance sheet is constantly changing. Though the balance sheet is prepared as of the last day of the income statement period, the preparation normally takes a few weeks or longer. Suppose, for instance, that the balance sheet is prepared at the close of business on September 30, 2012, because the income statement is for the year that ends then. The financial report of the business may not be ready until, say, November 15, 2012. (Six weeks' delay is not unusual.) So by the time the balance sheet is ready for distribution, it's already somewhat out of date. Things may have changed for the better or for the worse.



The accountant must decide whether or not the balance sheet at the last day of the income statement period is misleading compared with the more recent up-to-date financial condition of the business. Developments between the official balance sheet date (the last day of the income statement period) and the date of distribution of the balance sheet are called *subsequent events*. If the subsequent events substantially change the financial condition of the business, the changes should be disclosed in the footnotes to the financial statements of the business so that readers are not lulled into false impressions based on the balance sheet at the previous date.

Tracing revenue and expenses in the balance sheet

Chapter 2 explains accrual-basis accounting for measuring profit or loss — that is, for recording revenue and expenses. (Other types of income and gains may be recorded, as well as losses, to determine the final profit or loss for the period.) Understanding which accounts in the balance sheet are the result of recording revenue and expenses is very helpful because these accounts are inextricably linked with making profit. In fact, the accounts connected with recording revenue and expenses are a large part of the balance sheet.

To “size up” assets and liabilities, or to determine whether the balances of assets and liabilities are too high or too low, you compare the balance of the asset or liability with the revenue and/or the appropriate expense reported in the income statement. For example, in the Figure 3-2 balance sheet, the accounts receivable asset at the end of the most recent year is about \$3.8 million. Is this amount about right, or is it out of whack? Well, the only way to answer is to compare it with sales revenue for the year. If sales revenue were, say, only \$10.0 million for the year, an ending balance of \$3.8 million of accounts receivable is way too high and should raise alarm. Why should such a large percent of annual sales revenue still be uncollected at the end of the year?

Cash is like the Grand Central Station of the balance sheet. More or less everything passes through the cash account sooner or later. Not just revenue and expenses, but investing and financing activities also pass through the cash account. One exception is depreciation expense, which consists of writing down the long-term operating assets of the business that are reported in property, plant, and equipment. (A business may record noncash gains and other kinds of noncash expenses, such as amortization of the cost of its intangible assets.)



So which balance sheet accounts in addition to cash do revenue and expenses drive? Quite a few, as it turns out. The following list summarizes the balance sheet accounts that are part and parcel of recording revenue and expenses:

- ✓ **Accounts receivable:** Sales made on credit are first recorded in this asset account. The balance in this account is the amount of uncollected sales revenue at the balance sheet date.
- ✓ **Inventories:** When products are manufactured or purchased, their costs are recorded in this asset account, and when the products are later sold, the cost is taken out of this asset account and charged to cost of goods sold expense. The balance in this account is the total cost of unsold products at the balance sheet date.
- ✓ **Prepaid expenses:** Certain operating costs have to be paid in advance of when the amounts should be recorded as expenses, and the amounts are first recorded in this asset account. Over time, the costs are allocated to the months in which the company benefited from the prepaid expense. The balance in this asset account is the amount of prepaid operating costs that have not yet been charged to expense at the balance sheet date.
- ✓ **Property, plant, and equipment (PP&E) and accumulated depreciation:** The costs of long-term operating resources (that are not held for sale but are for use by the business) are recorded in the PP&E asset account. The cost of each item, except land, is allocated over the estimated useful life of the asset. A fraction of the cost is charged to each period as depreciation expense. The amounts of depreciation are not directly

deducted from the asset account but rather accumulated in the contra account called *accumulated depreciation*. The book value of the asset (cost minus accumulated depreciation) is the amount of cost that has not yet been written off to depreciation expense at the balance-sheet date. The book value will be charged to depreciation in future periods unless the business disposes of such assets before they reach the end of their estimated useful lives.

- ✓ **Accounts payable:** When a business makes a purchase on credit, the amount is recorded in this liability account, which is reduced later when the amount is paid. These purchases are for products to be sold, raw materials used in manufacturing, utilities, various services, office supplies, and so on, which are charged to expense. The balance in this account is the cost of things the business has not yet paid for at the balance sheet date.
- ✓ **Accrued expenses payable:** To recognize the gradual accumulation of certain expenses over time, for which the business does not receive a bill, certain expenses are recorded in the correct period by increasing this liability account. These liabilities are paid at a later time. For example, each period, the cost of employee vacations is recorded in this liability even though they don't take their vacations until later. The balance in this account is the accumulated amount of expenses that have been recorded but have not been paid for at the balance sheet date.

On the balance sheet, if you were to cross out cash and the accounts just listed, you would end up with only the two debt accounts (short-term and long-term) and the two owners' equity accounts (capital stock and retained earnings). These accounts are not involved in recording revenue and expenses. Rather, the accounts have to do with where the business gets its *capital* from, which we turn to next.

Managing capital

One reason for reading a balance sheet is to determine the business's *capital structure*, the mix of sources of capital. We're sure that you've heard the comment that it takes money to make money. It does. Before opening its doors, a business needs to raise enough capital to invest in the assets it needs for its operations. Being undercapitalized is the kiss of death. Many businesses gamble that they can get by with too little capital, but this is a bad bet. They may have a great business plan and model, but without sufficient capital, it's just a pipe dream.



The assets show how the capital is deployed, and the other half of the balance sheet shows where the capital came from. So in the Figure 3-2 example, how much total capital does the business have at its disposal at the end of its most recent year? The answer is the total of liabilities and owners' equity — in other words, the part of the balance sheet below assets.

Identifying sources of capital

The first three liabilities in Figure 3-2 — accounts payable, accrued expenses payable, and income tax payable — in one sense are not sources of capital. They are the *operating liabilities* of the business and arise naturally from carrying on the profit-making operations of the business. The business doesn't borrow money from these sources of credit. These short-term liabilities are non-interest bearing. The business has no explicit or determinable interest cost on these liabilities — although accounts payable and income tax payable typically include late payment penalties that tack on an interest charge beyond the interest-free credit period.

When people speak of raising capital, they aren't talking about operating liabilities. They're talking about borrowing money, having owners invest money in the business, or having the business itself plow back profit (by not distributing cash dividends from profit to shareowners). Therefore, you may often hear discussions about debt versus equity and the advantages and disadvantages of each source of capital. Operating liabilities more or less get lost in the shuffle. Nevertheless, operating liabilities are usually a fairly significant source of the total assets of a business — as they are in the Figure 3-2 business example (14.5 percent of total capital).

Using the same example, the capital structure of the business at the close of its most recent year is summarized in Figure 3-3. Three sources of capital are reported: operating liabilities, interest-bearing debt, and owners' equity. As you can see, debt is separated between short-term (one year or shorter maturity date) and long-term (longer than one year). Details about the maturity dates, interest rates, and significant provisions of the debt instruments are disclosed in the footnotes to the financial statements.

Total owners' equity (refer to Figure 3-1 or 3-2) is separated into two quite distinct types. The first account, *capital stock*, keeps track of the amounts invested in the business for which the owners receive capital stock shares (assuming that the business is a corporation). The second owners' equity source is *retained earnings* and equals the cumulative profit earned by the business over the years that has been retained instead of having been distributed as cash dividends to shareowners.



From the information in Figure 3-3, you can say that this business is moderately leveraged. *Leverage* refers to the use of debt capital on top of equity capital. The basic strategy is to magnify your equity capital by adding debt so that the business has more total capital to work with. If the business earns a higher percent of operating profit than the interest rate on its debt, it boosts the earnings on its equity capital. *Leverage* may refer to the total of both operating liabilities and interest-bearing debt. In other words, the term can refer just to debt or to all liabilities. Another term you may hear is the *debt load* of the business. Generally this term refers just to the interest-bearing debt of a business, which in the example is \$9,750 thousand (both short-term and long-term).

Accounts Payable	\$2,537		
Accrued Expenses Payable	\$1,280		
Income Tax Payable	\$59		
<i>Total Operating Liabilities</i>		\$3,876	14.5%
Short-Term Debt	\$2,250		
Long-Term Debt	\$7,500		
<i>Total Interest-Bearing Liabilities</i>		\$9,750	36.4%
Capital Stock	\$4,588		
Retained Earnings	\$8,601		
Figure 3-3: <i>Total Owners' Equity</i>		\$13,189	49.2%
Sources of capital. <i>Total Liabilities and Owners' Equity</i>		\$26,815	100.0%

We extend the explanation of various sources of capital in Chapters 10 and 11, and we go into more detail about reading the balance sheet in Chapter 5.

Figuring out what to do with capital when you have it

The whole point of raising capital is for the business to make good use of the money by investing in the assets needed for operating and making profit. Capital has a cost; interest is paid on debt capital, and the business needs to earn an adequate bottom-line profit (after interest) to justify the use of its owners' equity capital. Capital supplied by the operating liabilities of a business has no explicit cost. In the example in Figure 3-3, 14.5 percent of the total capital of the business is from its operating liabilities. This amount can be viewed as "free capital" on which the business does not pay a cost for using the money.

From Figure 3-3, you can also see that the business has raised about \$27 million total capital (rounded) as of the close of its most recent year. The asset side of a balance sheet reveals how the company has invested its capital. The listed assets reveal how much money the business has invested in each kind of asset. Referring back to Figure 3-2, you can see, for example, that the business has invested \$5,760 thousand in products being held for sale to customers (labeled *inventories* in the balance sheet). The business has invested \$2,346 thousand in cash, which may seem odd to you. How do you invest in cash? Well, by not spending the money.



A business needs to maintain an adequate cash balance for day-to-day operations. Letting the cash balance hover around zero isn't practical. If a business did, it might have to wait for cash to come in from collections of accounts receivable or from cash sales to be able to pay its bills and cut payroll checks for its employees. The cash balance is a buffer against unexpected delays in cash inflows. Having cash on hand allows the business to take advantage of opportunities that demand quick cash payment.

The investment in fixed assets (property, plant, and equipment) needs a comment or two here. The balance sheet (refer to Figure 3-2) shows that the total original cost of these long-term operating resources is \$20,858 thousand at the close of the year just ended. This amount was invested in the assets at the times of acquisition. The accumulated depreciation recorded on the assets is \$6,785 thousand. This amount is the portion of original cost that has been recovered by the business. A business sets sales prices high enough to cover its depreciation expense (as well as the cost of goods sold, other operating expenses, interest, and income tax.). In this way, a business gradually "sells off" some of its fixed assets to its customers over the years. Each year part of the original cost is converted back into cash. So at the close of the year just ended, the business has only \$14,073 thousand still invested in its fixed assets.

Making Profit: The Income Statement

A business earns profit by making sales and controlling expenses. Thus, the financial statement that reports profit performance starts with sales revenue and then deducts the expenses of making the sales and operating the business. Figure 3-4 shows the latest annual income statement of the business whose balance sheet is explained in the previous sections in this chapter.

Note: If the balance sheet reports assets, liabilities, and owners' equity rounded to the nearest thousand, then the income statement follows suit.



Two basic financial benchmarks that tie together the income statement and the balance sheet can be used to judge a company's financial performance. First, annual sales revenue is compared against total assets to test whether the business is making good use of its assets (because assets are used to make sales). The business in our example reports about \$27 million total assets (refer to Figure 3-2). The company reports about \$40 million annual sales (see Figure 3-4.) Second, annual net income is compared against owners' equity, which gives a measure of return on investment earned for the shareowners. The business in our example reports about \$13 million total owners' equity at the end of the most recent year (shown in Figure 3-2), and it earned about \$1.6 million bottom-line net income for the year (shown in Figure 3-4).

Sales Revenue	\$39,661,250
Cost of Goods Sold Expense	\$24,960,750
Gross Margin	\$14,700,500
Selling, General, and Administrative Expenses	\$11,466,135
Earnings before Interest and Income Tax	\$3,234,365
Interest Expense	\$795,000
Earnings before Income Tax	\$2,439,365
Income Tax Expense	\$853,778
Net Income	\$1,585,587
Earnings Per Share	\$3.75

Figure 3-4: The income statement for the year just ended.



Publicly owned corporations disclose earnings per share (EPS) in their income statements just below bottom-line net income. The market value per share is the most closely watched figure of a publicly owned company, and market value depends mainly on the earnings (net income, or profit) performance of the business. Therefore, generally accepted financial reporting standards require that EPS be reported by public companies.

In contrast, privately owned business corporations don't have to report earnings per share. The ownership shares of a private business aren't actively traded in a public market, so the market value per share is not readily determinable. The EPS of a private company can't be compared to any reference point, so financial reporting standards don't require that private companies report their EPS.

Truth be told, the income statement presented in Figure 3-4 contains minimal disclosure. Take out the subtotals — gross margin, earnings before interest and income tax, earnings before income tax, and bottom-line net income — and you're left with only five lines of "hard information": sales revenue and four expenses. The managers of the business need much more information about expenses; for that matter, they need more detailed information about sales revenue as well.

The disclosure in the income statement example in Figure 3-4 is for *external* financial reporting to the lenders and shareowners of the business. The extent of disclosure of expenses in Figure 3-4 meets minimum financial reporting standards. Many public businesses disclose research and development expenses separate from selling, general, and administrative expenses. In contrast, external income statements don't disclose management compensation or marketing expenses as separate expenses.

Moving from the revenue top line to the profit bottom line

The income statement can be read from the top down or from the bottom up. You can start with the sales revenue line and then work your way down to the bottom line. Or you can start with the bottom line and work your way up to the top line. One professional football player who is a very successful businessman was quoted as saying that the first thing he looks for in his company's income statement is whether the bottom line has parentheses around it, meaning that the bottom line is a loss (negative number) rather than a profit (positive number). Suffering a loss is said to be "in the red," and earning a profit is said to be "in the black."

The income statement example shown in Figure 3-4 includes four profit lines: gross margin, earnings before interest and income tax (also called *operating earnings*), earnings before income tax, and net income. As shown in Figure 3-4, businesses that sell products should disclose gross profit (also called *gross margin*), which equals sales revenue less the cost of goods (products) sold. Many public businesses don't report earnings before interest and income tax or earnings before income tax. Because private companies limit the distribution of their financial reports, we don't know whether they generally report those profit lines.



Earnings before interest and income tax (abbreviated EBIT) is compared with sales revenue to see whether the company has been able to maintain its *operating margin* (as a percent of sales revenue). Financial analysts consider this performance measure very important, so they would be upset if the business didn't provide the EBIT in its income statement.

Deciding which is more important: Revenue or expenses

Revenue and expenses act like the two blades on scissors. The final cut of profit is the result of both revenue and expenses. Quite clearly, both factors determine profit for the period. So in one sense, asking which is more important is nonsensical. Yet at the same time, experienced business managers argue that making sales and generating sales revenue is more important than controlling expenses — keeping in mind that both are important, of course.

Why is revenue more important? Without revenue, there can be no profit. In other words, the starting point for making profit is making sales. Of course, a business may let its expenses get out of control relative to its sales revenue. But for a given level of sales revenue, a rock-bottom level of expenses has to be incurred to make the sales and operate the business. A business can only cut costs to a certain point before hurting sales in the process.

On the other hand, sales have no theoretical limit; with smart marketing a business can keep increasing its sales (assuming it can raise enough capital). The upside potential of sales is limitless, but the downside limit of reducing expenses is definitely limited. For these reasons, financial analysts are generally more concerned with the direction of sales year to year. Sales downturns are more likely to kill a business than costs that are out of control.

Summarizing Cash Flows: The Statement of Cash Flows

In 1987, the accounting rule-making body in the United States decided that a statement of cash flows should be included in financial reports to supplement the income statement and to help explain changes in the financial condition as reported in the balance sheet. The concept of this statement is rather straightforward: It summarizes the sources and uses of cash during the year.

From the very first page of this book, we emphasize the importance of cash flows. Our purpose here is to simply introduce the statement of cash flows. Figure 3-5 illustrates this financial statement for the same business example for which we present a balance sheet (Figures 3-1 and 3-2) and income statement (Figure 3-3).

Note: If the balance sheet and income statement figures are rounded to the nearest thousand, then the statement of cash flows follows suit.

The purpose of the statement of cash flows is to give the reader a road map of the reasons for the change in cash during the year. You can see in the example in Figure 3-5 that cash increased \$247,137 during the year. But remember, the increase in cash is not a measure of the profit performance of the business. You must look in the income statement for profit performance.



Frankly, the first section of the statement of cash flows is a bearcat to get a grip on. For this reason, we spend a good part of Chapter 4 on understanding and interpreting *cash flow from operating activities*, or the cash result from earning profit. Chapter 2 explains that the cash impact from the profit-making activities of a business is invariably different from the bottom line of the business. Chapter 4 offers a more in-depth explanation of the reasons for the difference between cash flow and profit. In the following sections of this chapter, we introduce the three categories of cash flows that are reported in the statement of cash flows.

Cash Flow from Operating Activities

Net Income	\$1,585,587
Changes in Operating Assets and Liabilities:	
Accounts Receivable	(\$346,250)
Inventories	(\$1,098,750)
Prepaid Expenses	(\$52,875)
Depreciation Expense	\$768,450
Accounts Payable	\$356,550
Accrued Expenses Payable	\$143,845
Income Tax Payable	(\$58,650)
Cash Flow from Operating Activities	<u>\$1,297,907</u>

Cash Flow from Investing Activities

Investment in Property, Plant, and Equipment	(\$3,186,250)
Proceeds from Disposals of Property, Plant, and Equipment	<u>\$265,480</u>
Cash Used in Investing Activities	<u>(\$2,920,770)</u>

Cash Flow from Financing Activities

Net Increase in Short-Term Debt	\$485,000
Increase in Long-Term Debt	\$1,650,000
Issuance of Capital Stock Shares	\$185,000
Cash Dividends to Stockholders	<u>(\$450,000)</u>
Cash from Financing Activities	<u>\$1,870,000</u>
Cash Increase during Year	\$247,137
Cash Balance at Beginning of Year	<u>\$2,098,538</u>
Cash Balance at End of Year	\$2,345,675

Figure 3-5:
A statement
of cash
flows for
the year just
ended.

Showing cash flow from operating (profit-seeking) activities

The first section in the statement of cash flows explains why cash flow from profit is a different amount than the bottom-line profit (net income) for the period. As you can see in Figure 3-5, this section of the statement of cash flows is called *cash flow from operating activities*. A better title might be cash flow from *profit-making* activities. In any case, this section begins with the net income reported in the income statement, which in the example is \$1,585,587 for the year. Next, several adjustments are made to the net income figure in order to arrive at the cash flow from operating activities amount, which in the example is \$1,297,907.

You may question the difference between net income and cash flow from net income (or cash flow from operating activities). Cash flow is \$287,680 lower than net income for the year: \$1,585,587 net income – \$1,297,907 cash flow from operating activities = \$287,680 difference. This gap is due to a combination of factors, in particular depreciation expense and changes in the assets and liabilities used in recording revenue and expenses. The net result of all these factors is a reduction in cash flow from net income for the year. Chapter 4 carefully explains each of the cash-flow adjustments to net income.

Listing other sources and uses of cash

The remainder of this financial statement divides cash flows between investing activities and financing activities (refer to Figure 3-5). *Investing* refers to making capital expenditures for expanding, updating, and replacing the long-term operating assets of the business, which are reported as property, plant, and equipment in the balance sheet. A business may also make other types of investments, for example in intangible assets, marketable securities, and capital stock shares in other businesses. (The example in Figure 3-5 doesn't include any of these other types of investments.)

The investing activities section of the statement includes any cash inflows from disposals of the assets classified in the investment activities section. In the example, the business realized \$265,480 cash proceeds from disposing of some of its fixed assets.

In the example, the business spent \$2,920,770 cash (net of the cash inflow from disposals) on capital expenditures, or about \$3 million. Where did it get this \$3 million? Cash flow from profit (operating activities) was only about \$1.3 million, and its cash balance increased during the year. Therefore, the business must have raised additional cash from its sources of capital.

Sure enough, the third section of the statement reports that the business raised \$1,870,000 cash during the year through *financing activities* — in this case, by increasing its short-term and long-term debt and by issuing additional stock shares to its owners. This cash increase figure is net of the \$450,000 cash dividends paid to its stockholders during the year. Cash dividends are placed in the financing section of the statement of cash flows. (More on this in Chapter 4.)

Chapter 4

Getting a Grip on the Statement of Cash Flows

In This Chapter

- ▶ Defining the different kinds of cash flows
 - ▶ Determining what the statement reveals about changes in financial condition
 - ▶ Checking out different cash-flow situations
 - ▶ Realizing the faults of the statement of cash flows
-

The statement of cash flows is the youngest of the three primary financial statements reported by businesses. In 1987, the high priests that mandate financial reporting standards decided that this statement should be included alongside the balance sheet and income statement in financial reports of businesses.

Despite being one of the “big three” financial statements, the statement of cash flows doesn’t draw the attention from financial analysts, creditors, and investors that the balance sheet and income statement do. The top line (sales revenue) and the bottom line (net income, or profit) in the income statement get the most focus, and the balance sheet also gets a fair amount of consideration, especially if the business is on the ropes and faces a serious risk of bankruptcy.



However, the statement of cash flows is the dominant financial statement when a business isn’t generating enough cash flow or is hemorrhaging cash from operations, and has gotten itself in a precarious situation regarding its ability to pay its debt obligations on time. In these stressful situations, the statement of cash flows takes center stage.

Even for financially healthy and prosperous companies, the statement has several important uses, so don’t limit your attention to the statement to dire situations. At the same time, be cautioned that reading this financial statement presents certain challenges. In this chapter, we explain the statement’s important uses and advise you on how to read and understand it.

Distinguishing Cash Flows

Figure 4-1 presents a basic example for the statement of cash flows, presented according to generally accepted financial reporting standards of course. (If you read Chapter 3, note that this example is different.) The statement of cash flows doesn't stop with the change in cash during the year, a \$25,000 decrease in the example. The statement also includes the beginning balance and the ending balance (as you see in Figure 4-1).

Cash Flow from Operating Activities

(Dollar amounts in thousands)

Net Income	\$350	
Cash-Flow Adjustments to Net Income:		
Accounts Receivable Increase	(\$70)	
Inventories Decrease	\$60	
Prepaid Expenses Increase	(\$5)	
Depreciation Expense	\$85	
Accounts Payable Decrease	(\$20)	
Accrued Expenses Payable Increase	\$15	
Income Tax Payable Increase	\$5	
Cash Flow from Operating Activities		\$420
Cash Flow from Investing Activities		
Expenditures for Property, Plant, and Equipment		(\$400)
Cash Flow from Financing Activities		
Net Decrease in Short-Term Debt	(\$50)	
Increase in Long-Term Debt	\$50	
Issuance of Capital Stock Shares	\$25	
Cash Dividends to Stockholders	(\$70)	
Cash Flow from Financing Activities		(\$45)
Cash Decrease during Year		(\$25)
Cash Balance at Beginning of Year		\$460
Cash Balance at End of Year		\$435

Figure 4-1:
Example of
a statement
of cash
flows.

In this financial statement, cash flows are classified into three categories:

- ✔ **Cash flow from operating activities:** The first section in the statement of cash flows lists the adjustments to net income for determining the net cash increase or decrease from the profit-making operating activities of the business during the period. In the example in Figure 4-1, net income is \$350,000 for the year, but this amount isn't the cash flow for the year. Cash flow for the year is \$420,000. In other words, the total cash inflow from revenue during the year was \$420,000 more than the total cash outflow for expenses during the year. This first section leaves the trail you follow to see why cash flow was higher than net income for the year.
- ✔ **Cash flow from investing activities:** The second section in the statement of cash flows lists outlays called *capital expenditures*. They include cash expenditures to replace, upgrade, and expand the long-term operating assets of the business, including its buildings, land, machinery, equipment, tools, and so on. Also, a business may make other investments in marketable and nonmarketable securities, intellectual property (patents and secret processes, for example), and in other businesses. A business may make an "investment" by loaning money to one or more of its key executives. This section of the statement includes proceeds from the sale or disposals of investment assets. In the example in Figure 4-1, the business made capital expenditures of \$400,000 during the year. It had no sales or other disposals of investments.
- ✔ **Cash flow from financing activities:** The third section in the statement of cash flows reports dealings between the business and its sources of capital, which are interest-bearing debt and owners' equity. It does not include changes during the year in its non-interest-bearing, short-term operating liabilities: accounts payable, accrued expenses payable, and income tax payable. Changes in these three operating liabilities are included in the first section, cash flow from operating activities. The third section focuses on changes during the year in the short-term and long-term debt of the business, whether the business raised additional capital from its owners or returned capital to them, and cash dividends paid to its shareowners.

Chapters 1 and 2 explain the differences between accrual-basis accounting for revenue and expenses versus the cash flows of revenue and expenses. The following section explains in detail how to get from the accrual-basis profit number for the period (net income) to the increase or decrease in cash resulting from the profit-making activities for the period. The profit-making operating activities change the balances in those assets and liabilities that are used to record revenue and expenses. These changes are the stepping-stones from net income to cash flow from operating activities.

Adjusting your way to cash flow from operating activities

Think of the first section in the statement of cash flows as the route from one side of the river (the accrual-accounting shore) to the other side (the cash-basis shore). Net income, the bottom line of the income statement and the first line in the statement of cash flows, is the first steppingstone and the connecting link between the two documents. Be warned: The trip is across choppy waters. It's like crossing the Mississippi, not jumping over a puddle. The other two sections of the financial statement are more intuitive and straightforward (which is why we devote less discussion to them in the next section).



Assuming that you have a basic understanding for why revenue and expense cash flows are different from their accrual-basis amounts, you could simply skip down to the line for cash flow from operating activities (\$420,000 in the example in Figure 4-1). However, you might miss an important piece of information about the business. For example, suppose that during the year there was a huge increase in its inventory of products held for sale. This increase caused a corresponding decrease in cash flow. Also, the inventory buildup could force the business to sell products below normal prices.

Referring back to Figure 4-1, net income is \$350,000 for the year just ended. This amount isn't the same as cash increase (or decrease) from earning profit for the year. To get from net income to the amount of cash flow, you have to make several adjustments to net income. These adjustments to net income, explained in the following sections, are usually presented in the same order that the assets and liabilities connected with revenue and expenses are listed in the balance sheet. So the first adjustment is the change during the year in accounts receivable.

Accounts receivable increase

In the example in Figure 4-1, accounts receivable causes a \$70,000 *negative* adjustment to net income. This asset account, which is used to record sales on credit, increased \$70,000 during the year. (To find out more about asset accounts and effect on cash flow, you may want to refer to the sidebar "Understanding adjustments to net income.") The increase means that \$70,000 less cash was collected during the year than the amount recorded in sales revenue.



Cash inflow from credit sales was \$70,000 less than the sales revenue amount used to determine profit for the year. An easy way to think about this is to assume that the business started the year with zero accounts receivable and has \$70,000 accounts receivable at the end of the year. The ending balance is the amount of uncollected receivables from customers. The business won't collect this amount until early next year. For the year being reported, the cash had not been collected.

Understanding adjustments to net income

Many (probably most) readers of financial statements find that the most difficult part of the statement of cash flows to understand is the first section — cash flow from operating activities. This section starts with net income and then lists several adjustments to net income. In addition to cash, several other asset accounts as well as several liability accounts are used in recording revenue and expenses in accrual accounting.

Changes in these asset and liability accounts during the year help or hurt cash flow, causing cash flow from profit (operating activities) to be higher or lower than the amount of profit. The rules are fairly straightforward:

- ✓ An increase in an asset decreases cash flow.
- ✓ A decrease in an asset increases cash flow.
- ✓ An increase in a liability increases cash flow.
- ✓ A decrease in a liability decreases cash flow.

In summary, asset changes work in reverse direction on cash flow, and liability changes work in the same direction.

Inventories decrease

In the example in Figure 4-1, the change in inventories results in the \$60,000 *positive* adjustment to net income. The balance in this asset account (the cost of products awaiting future sale) decreased \$60,000 during the year, which means that the business didn't replace all the products it sold during the year. It allowed its stockpile of products held in inventory to drop. The implication is that the business started the year with too much inventory and reduced the size of its inventory during the year.

In this situation, the business is said to have *liquidated* part of the amount invested in its inventories asset. In other words, it sold some products without replacing them, reducing cash outflow. Suppose, for instance, that the business sold 100,000 units of product during the year but replaced only 95,000 of units. Therefore, the business avoided cash outlay for the 5,000 units it did not replace. In short, the business spent \$60,000 less cash on purchasing products than the amount of cost of goods sold expense recorded in the period. Therefore, the \$60,000 inventories decrease is added to net income, as you see in Figure 4-1.

Prepaid expenses increase

Usually the change in the prepaid expenses asset account during the year is relatively small compared with changes in accounts receivable and inventories. In the example, the prepaid expenses asset account increased \$5,000 during the year. This increase had to be paid for, of course. Basically, the business spent \$5,000 more for prepaid costs than was charged to expense during the year.

For instance, suppose the balance in this asset was \$70,000 at the start of the year. This amount would have been charged to various operating expenses during the year. The business would end the year with \$75,000 in the asset, which means it would have paid out \$5,000 more than the amount charged to expenses. Therefore, the increase in the asset is shown as a negative adjustment to net income (as you can see in Figure 4-1).

Accumulated depreciation increase

Like almost all companies, the business in the example in Figure 4-1 recorded depreciation expense to the year. Depreciation accounting in actual practice is somewhat controversial. The influence of the federal income tax law has caused deviations from what accountants should theoretically record as depreciation expense period by period over the actual useful lives of fixed assets. Speaking broadly, the useful lives over which assets are depreciated are too short, and, for no good reason, depreciation is front-loaded. The federal income tax law gives businesses rapid depreciation options as incentives to invest in long-term operating assets. Be that as it may, the concern here is with the cash-flow aspects of depreciation.

In Figure 4-1, the business recorded \$85,000 depreciation expense for the year. This amount is one of the expenses deducted from sales revenue to determine net income for the year. In recording depreciation, a business increases the contra account *accumulated depreciation* instead of reducing the asset account property, plant, and equipment. The balance in the accumulated depreciation account is deducted from the balance in the property, plant, and equipment asset account, and the difference, which is called the *book value* of the asset, is the value reported in the balance sheet.



The recording of depreciation does not require cash outlay. For this reason, it's sometimes called only a *book entry*. The business paid cash when it originally purchased or constructed its fixed assets (property, plant, and equipment). It does not have to pay a second time when using its fixed assets. But depreciation is real and factual, and fixed assets wear out over time or otherwise lose their usefulness to the business. Except the cost of land, which is not depreciated, all fixed assets are on the march to the junkyard. Because depreciation is not a cash outlay expense, the amount of depreciation for the year is a positive adjustment to net income.

Accounts payable decrease

A business makes many purchases on credit (unless it has a lousy credit rating and no vendors will extend it credit). Also, a business receives many bills (invoices) from a variety of sources — for utility costs, wireless and landline telephone and Internet services, property taxes, renewal of insurance policies, and so on. These short-term liabilities generally have to be paid in a month, give or take a little. Until paid, the amounts sit in the liability called *accounts payable*.



Although not entirely correct in a technical sense, the practical way to think about accounts payable is that when recording an increase in this liability account, an expense account is also increased. When payments are made on this liability, cash decreases and the liability decreases. If the business starts and ends the year with the same balance of accounts payable, the cash outflow equals the amount of expenses recorded during the period. But usually the ending balance of accounts payable is higher or lower than the beginning balance, so net income needs a cash-flow adjustment.

In the example in Figure 4-1, the accounts payable balance decreased \$20,000. In other words, the business paid down its accounts payable during the year. Cash outflow was \$20,000 more than the amount of expenses that are deducted from sales revenue to determine net income for the year. Therefore, the \$20,000 pay down on accounts payable is a negative cash-flow adjustment to net income.

Accrued expenses payable increase, and income tax payable increase

Changes in accrued expenses payable and income tax payable have the same impact on cash flow as the change in accounts payable. Both these operating liabilities increased during the year, whereas accounts payable decreased. Therefore, as you should expect, the cash-flow adjustment to net income is opposite to that caused by the decrease in accounts payable. The changes during the year in these liabilities are *positive* adjustments to net income (refer to Figure 4-1 for an example). Cash flow is higher because these two operating liabilities increased during the period.



When an operating liability increases during the period, the amount of cash outlay associated with the liability is less than the amount charged to expense in the period. The full amount of the expense is deducted from sales revenue to determine profit (net income). The \$15,000 increase in the accrued expenses payable liability means that this amount of expenses for the year was recorded by an increase in the liability, not by cash outlay. Likewise for the increase in income tax payable: The company's actual cash outlay for income tax expense during the year was \$5,000 less than the amount recorded to the expense for the year.

The final cash-flow tally from operating activities

In Figure 4-1, the cash flow from operating activities, after making several adjustments, is \$420,000 for the year, which is considerably higher than the \$350,000 net income for the year. In a particular situation, cash flow can be about equal to net income, or it can be much higher or lower than profit for the period. The difference depends on changes in the assets and liabilities used to record revenue and expenses. We examine different cash-flow scenarios in the later section “Comparing Cash-Flow Scenarios.”

Cogitating on cash flow from investing activities

If you made it through the last section, you can breathe easier now. You made it over the hump — the cash-flow adjustments to net income. The remaining two sections of the statement of cash flows are relatively straightforward, and you can navigate through the next part of the statement, cash flow from investing activities, without much guidance. But in this section we deal with a few potholes on the road through this type of cash flows. (If you want to review the difference between *investing* cash flows and the other two types, refer to “Distinguishing Cash Flows.”)



In one sense, every asset is an investment. In the broad sense of the term, a business “invests” in accounts receivable by making sales on credit that generate the receivables. Under this inclusive definition, a business “invests” in inventories and prepaid expenses.

Keep in mind, however, that the changes in accounts receivable, inventories, and prepaid expenses are not included in the investing activities section of the statement of cash flows. Instead, the changes are treated as adjustments to net income to determine cash flow from operating activities. Changes in other assets are reported in the *cash flow from investing activities* section of the statement of cash flows. In the example in Figure 4-1, the business has only one other asset — *property, plant, and equipment*. In other situations, a business may have investments in marketable securities or intangible assets.

In the example, the business didn’t make any disposals of investments during the period. It had no cash inflow from this source. On the other hand, it spent \$400,000 in *capital expenditures* during the period to replace, upgrade, and expand its building, machines, tools, and equipment. By the way, the \$400,000 outlay during the period does *not* include repair and maintenance costs on the company’s fixed assets. These routine upkeep costs are recorded to expense in the period. This particular expense is not disclosed in the external income statement of a business, but it must be reported in its federal income tax return.

Considering cash flow from financing activities

The last part of the statement of cash flows deals with financing activities. A business relies on certain short-term non-interest-bearing liabilities to *finance*, or provide part of the total capital it needs. Typically, the total of a company’s accounts payable, accrual expenses payable, and income tax payable may be 10 or 20 percent or more of its total assets. In other words, these three liabilities provide a small but significant fraction of the total capital of

a business. Changes in these three operating liabilities are not reported as financing activities in the statement of cash flows. Instead, these changes are treated as adjustments to net income in order to determine cash flow from operating activities. Refer to Figure 4-1 to see an example.

Changes in debt borrowings, in other liabilities, and in the company's owners' equity are reported in the *cash flow from financing activities* section of the statement of cash flows. In the example, the business has short-term and long-term debt and reports two owners' equity sources. In some situations, a business may record unusual types of long-term deferred liabilities that arise from recording certain expenses or losses. Changes in these special types of liabilities during the year are reported in the cash flow from operating activities section, even though the placement of these long-term liability accounts is close to long-term debt liabilities in the balance sheet.

Reporting cash flows from financing activities may appear to be rather straightforward. But appearances can sometimes be deceiving. The purpose of this section in the statement of cash flows is to summarize changes during the period in the debt and equity capital of the business, but in many situations, disclosure problems are lurking under the surface.

Detailing debt changes



One issue concerns the turnover of short-term debt that came due during the year. Often a business doesn't actually pay off its debt. Instead it *rolls over* (renews) the debt. The interest rate and other terms of the loan may change. Should only the net increase or decrease of short-term and long-term debt be reported? Or should the statement also disclose the gross turnover, which includes the totals for renewal of old loans as well as new loan activity? Different companies follow different reporting practices.

Because businesses want to keep the statement to a page in length, they don't have all that much room in the statement of cash flows to go into a lot of detail. To clarify, a business should include relevant details in the footnotes of its financial statements. In the example in Figure 4-1, the business decreased its short-term debt a net \$50,000 and increased its long-term debt \$50,000. The two changes may be independent of one another, or maybe not. Perhaps the business persuaded its lender (say a bank) to stretch out the term of its short-term notes payable to make them long term. The particulars aren't apparent.

Explaining equity changes



A business keeps two distinct types of accounts for owners' equity. One is for capital activity between the business and its owners, which refers to the putting in and taking out of capital by its shareowners. For example, a business may issue additional ownership shares or redeem some of its shares during the year. In the example in Figure 4-1, the business issued new shares for \$25,000 and did not redeem any of its capital stock during the year. As you see in Figure 4-1, the cash inflow from issuing capital stock (or other ownership

shares) is reported in the cash flow from financing activities section in the statement of cash flows.



Business owners tend to be sensitive to increases in the number of shares because they dilute ownership, reducing power per owner and potentially decreasing the cash dividend per share. For that reason, a business should comment on the reasons for issuing additional ownership shares, probably in the footnotes to its financial statements.

The other basic type of owner's equity account is typically called *retained earnings*. Net income for the period increases the balance of this account (or, a loss for the period decreases the balance). (Net income is also the leadoff figure in the cash flow from operating activities section of the statement of cash flows.) The \$350,000 net income for the year (refer to Figure 4-1) increased the balance in the account.

Cash dividends paid to stockowners are also reported in the cash flow from financing activities section. Businesses have to decide whether to retain all the cash flow from operating activities (which may be done to help fund the growth of the business or to shore up its cash position) or to pay a cash dividend from profit to its shareowners. In the example in Figure 4-1, the business decided to distribute \$70,000 in dividends to its shareowners, which equals 20 percent of its net income.

$$\$70,000 \text{ cash dividends} \div \$350,000 \text{ net income} = 20\%$$

The business retained 80 percent, or \$280,000 of its net income for the year. Therefore, its retained earnings increased \$280,000 during the year.



There is no agreed-upon benchmark regarding the percent of net income that “should” be distributed as cash dividends from net income. One factor is the cash flow from operating activities. Obviously a business must have enough cash flow to pay cash dividends. Other demands on the cash flow are also a factor. For example, a business may need every cent of its cash flow for desperately needed upgrades and expansion of its fixed assets. Every business is a relatively unique case. Indeed, a business may be in entirely different cash circumstances year to year.

Some businesses have abundant cash flow but don't pay cash dividends; instead they hoard cash. For many years, Microsoft didn't pay a cash dividend — until it did. The absence of cash dividends in the financing activities section of the statement of cash flows reveals that the business did not pay cash dividends. However obvious that may seem, readers may not note the omission.

For clarity, businesses can explain their cash dividend policy in the footnotes or elsewhere in their financial reports. But in fact, such disclosure is not required by generally accepted financial reporting standards. Public companies have to be careful in what their press releases and chief executives say

about their cash dividend plans. Market prices of their stock shares depend on many factors, but anticipated cash dividends is one of the most important. A public company does not want to be accused of misleading investors about its future dividend plans, which can change abruptly because of changing business conditions. Private companies can be more relaxed about making comments concerning their cash dividend plans.

Getting to Know the Dual Personality of the Statement of Cash Flows

The name itself — *the statement of cash flows* — would lead you to think that its purpose is limited to reporting cash flows and explaining the increase or decrease in cash during the period. The statement does serve this objective. However, reporting cash flows is not the whole and only purpose of the statement. Cash is not the end of the story told by this financial statement — not at all. In some respects, cash flows aren't even the most important information being reported in the statement, despite the title and organization of information in the statement of cash flows.



The statement has a dual nature and twofold purpose: to summarize cash flows and to summarize changes in the financial condition of the business during the period. The changes in the financial condition of a business are very important and should not be overlooked. Cash flow may be satisfactory, but it doesn't guarantee that changes in the financial condition of a business are satisfactory. Make the effort to read the statement of cash flows twice, as it were — first focusing on cash flows, and then focusing on changes assets, liabilities, and owners' equity.

Spotting changes in financial condition

Cash is king, as the saying goes. But the managers of a business should pay close attention to its overall financial condition. Cash is just one piece in the financial-condition chess game of a business, and putting on blinders and watching only cash can lead to catastrophic results. A business's managers should keep a careful eye on all assets as well as the liabilities and owners' equity. Cash flow may be the most pressing problem facing a business, but after it gets its cash flow under control, it still has to keep its financial condition healthy, under control, and out of harm's way.



After evaluating the statement of cash flows in terms of, well, cash flows, concentrate on the changes in the assets, liabilities, and owners' equity of the business during the period. Ask whether there are any "outsize" changes during the year. In other words, did any relatively large changes signal a major shift in the policies or predicament of the business?

Suppose the business in the example had increased its long-term debt by \$750,000 during the year. (In the example shown in Figure 4-1, the business increased its long-term debt by only \$50,000.) The obvious questions are: Why did the business take on so much additional debt, and what did it do or will it do with this money? You should look for an explanation in the footnotes or in other communications from management that explain such a large step-up in the company's long-term debt. The business may have a very good reason for it. Then again, taking on so much additional debt may be too risky and ill advised.

In the Figure 4-1 business example, the changes in assets, liabilities, and owners' equity appear more or less in a normal range. The biggest change is the \$400,000 additions to property, plant, and equipment. These capital expenditures are typically large amounts. Ideally, the financial report should include commentary by management on the reasons for the relatively large outlay for capital expenditures.

To interpret the changes in assets, liabilities, and owners' equity that are reported in the statement of cash flows, you need to compare the amounts of the changes with the balances in the company's assets, liabilities, and owners' equity, which are reported in its balance sheet. As a matter of fact, the statement of cash flows provides a bridge from the balance sheet at the start of the period to the balance sheet at the end of the period.

Building the year-end balance sheet

The statement of cash flows is presented as a stand-alone statement, as are the balance sheet and income statement. Because each financial statement is presented on a separate page, you may lose sight of the fact that the three financial statements are tightly interwoven. For example, the balance in the accounts receivable asset is connected with sales revenue amount in the income statement, and the statement of cash flows provides the connecting links between the beginning and the ending balance sheets.

Figure 4-2 shows the beginning balance sheet of the business in the left column. The changes in assets, liabilities, and owners' equity that are reported in the statement of cash flows are in the middle column, and these changes lead over to the ending balances in the right column. Note that two changes affect the ending balance of the owners' equity account *retained earnings*: Net income is an increase in this account, and cash dividends are a decrease.

<i>Dollar amounts in thousands</i>	At Start of Year	Changes During Year – See Statement of Cash Flows	At End of Year
Assets			
Cash	\$460	(\$25)	\$435
Accounts Receivable	\$345	\$70	\$415
Inventories	\$675	(\$60)	\$615
Prepaid Expenses	\$70	\$5	\$75
<i>Total Current Assets</i>	<u>\$1,550</u>		<u>\$1,540</u>
Property, Plant, and Equipment	\$965	\$400	\$1,365
Accumulated Depreciation	(\$365)	(\$85)	(\$450)
<i>Cost less Accumulated Depreciation</i>	<u>\$600</u>		<u>\$915</u>
<i>Total Assets</i>	<u><u>\$2,150</u></u>		<u><u>\$2,455</u></u>
Liabilities & Owners' Equity			
Accounts Payable	\$185	(\$20)	\$165
Accrued Expenses Payable	\$265	\$15	\$280
Income Tax Payable	\$85	\$5	\$90
Short-Term Debt	\$250	(\$50)	\$200
<i>Total Current Liabilities</i>	<u>\$785</u>		<u>\$735</u>
Long-Term Debt	\$350	\$50	\$400
<i>Total Liabilities</i>	<u>\$1,135</u>		<u>\$1,135</u>
Capital Stock	\$600	\$25	\$625
Retained Earnings	\$415	\$280 *	\$695
<i>Total Owners' Equity</i>	<u>\$1,015</u>		<u>\$1,320</u>
<i>Total Liabilities and Owners' Equity</i>	<u><u>\$2,150</u></u>		<u><u>\$2,455</u></u>

Figure 4-2: Using the statement of cash flows to get from beginning to ending balance sheets.

* [\$350 net income – \$70 dividends = \$280 net increase]



The changes in assets, liabilities, and owners' equity taken all together can be thought of as the collection of decisions made by managers during the year. These changes are the outcomes of their actions (or perhaps not taking actions when they should have). Change is constant. A business is always doing things that change its financial condition. For instance, the business in

Figure 4-2 allowed its accounts receivable to increase \$70,000 during the year. In contrast, it reduced its inventory level \$60,000. Hopefully, these changes were the results of carefully thought-out decisions to improve profit performance and to keep the financial condition of the business in good order.

You'll never see a situation in which all assets, liabilities, and owners' equity accounts of a business remain unchanged or nearly so during the year. You'll be confronted with many changes in the balance sheet accounts. To evaluate the year overall, the trick is to look at the changes in their entirety and ask whether the business is better or worse off (or perhaps simply about the same) because of the changes.



Businesses do not include a supplementary explanation like Figure 4-2 in their financial reports. We show Figure 4-2 as a teaching tool to illustrate the ties between the changes during the period in assets, liabilities, and owners' equity and the amounts reported in the statement of cash flows. Including a summary like Figure 4-2 in the financial report of a business wouldn't be objectionable. However, financial reports don't explicitly integrate or connect the three primary financial statements to make the connections between the statements more obvious. Each financial statement is reported as a tub standing on its own feet.

Comparing Cash-Flow Scenarios

One of the scariest comments business managers can hear from their accountant or CPA is "You have a cash-flow problem." It's like the famous line from *Apollo 13*, "Houston, we have a problem." Of course, business managers should plan and closely monitor cash flow so that they don't have to go into a panic mode to deal with it. But cash-flow problems have a habit of sneaking up on a business. If a business is earning profit, many business managers simply assume that cash flow is satisfactory. Earning a profit means making money, doesn't it? We hope you know better by now. Even if profit is good, cash flow can be bad.



Savvy business managers demand quarterly or monthly accounting reports on cash flows. They keep a close watch on the variables that drive cash flow from profit, which are the changes in the assets and liabilities used in recording revenue and expenses. If accounts receivable, for example, takes a big jump, the experienced manager knows that this increase hurts cash flow during the period. The manager understands that a part of the sales revenue used in calculating profit has not been actually received as cash inflow by the end of the period. If inventories creep up, the perceptive manager knows that cash was spent to build up the inventory, which reduces cash flow during the period.

If your bank pulls the plug

If your business has an existing loan come due and all of a sudden the bank refuses to roll it over, you're facing a serious cash-flow problem. The bank, in addition to refusing to renew the loan, may even demand immediate payment of all loans. Of course, this situation would put the business into a real bind, and not just because of the lost capital from the bank. After word got around that the bank had stopped lending money to your business, you'd find convincing another source of debt capital to loan you money that much harder. The business probably would find it difficult, if not impossible, to raise equity capital on short notice to replace its debt capital. Scrambling for more equity

capital is a worst-case scenario. Your business may find a source, but the price it would be asked to pay for the new equity capital would probably be steep.

If your bank senses that you're not doing a good job managing your cash flow, the loan officer will probably become very nervous. Try to avoid any blunders, such as making a late interest payment, because a single incident may cause the bank to reach its tipping point and refuse to renew your loan. It's extremely important to keep your debt sources convinced that you know what you're doing in managing cash flow.

A cash-flow problem can arise out of the blue (as discussed in the sidebar "If your bank pulls the plug"). As we address in Chapter 11, securing and managing debt capital, which are necessary for good cash flow, can be tricky. When a business is said to have a cash-flow problem, most often the meaning is that the business isn't generating enough positive cash flow from profit (operating activities) or that its cash flow is negative. We explain the calculation of cash flow from operating activities in the earlier section "Adjusting your way to cash flow from operating activities." But if your calculations turn up an ugly truth about your situation, you'll need to know what to do to fix it. This section explores different cash-flow scenarios, good and bad.

Starting with cash flow in a steady state

Suppose that over the last few years, a business has been in a relatively steady state. Its sales revenue and profit have been relatively constant year to year. Its managers keep accounts receivable, inventories, and prepaid expenses under control, which means that the balances in these assets are consistent with sales revenue and operating costs. The managers also control accounts payable, accrued expenses payable, and income tax payable. The balances in these liabilities are in line with its total expenses and profit for the year. In this steady-state scenario, what's the story with cash flow?

In this situation, the cash-flow adjustments to net income are close to zero — not significant — except one, depreciation. Other than depreciation, the cash-flow adjustments to net income are negligible because the assets and liabilities didn't change during the year (or the changes were minor so as not to matter much). However, depreciation has to be added to net income to determine cash flow.

To illustrate the steady-state scenario, we modify the example shown in Figure 4-1. Assume that the company's accounts receivable, inventories, prepaid expenses, accounts payable, accrued expenses payable, and income tax payable did not change during the year. Their ending balances are equal to their beginning balances. Therefore, depreciation is the only cash-flow adjustment to net income. In this scenario, the company's cash flow is as follows (refer to Figure 4-1 for data):

$$\$350,000 \text{ net income} + \$85,000 \text{ depreciation expense} = \$435,000 \text{ cash flow}$$

Therefore, the company has \$435,000 cash available for general purposes, such as replacing fixed assets and paying dividends to shareowners.



Now, instead of earning \$350,000 profit in the steady state, suppose the company breaks even. In other words, its net income for the period is zero (expenses equal revenue). The company's cash flow from operating activities would be

$$\$0 \text{ net income} + \$85,000 \text{ depreciation expense} = \$85,000 \text{ cash flow}$$

Despite earning no profit, the business would have \$85,000 cash flow, all of it attributable to depreciation. The break-even scenario isolates attention on depreciation, which is not a cash outlay in the period the expense is recorded. The story isn't over, however. The cash inflow from sales revenue each period includes an amount toward the recovery of the capital invested property, plant, and equipment, or fixed assets. In the break-even scenario, the business recoups \$85,000 of the money invested in its fixed assets in past years.



Almost all businesses record depreciation every year, but that recordkeeping may not be the end of the story for cash-flow adjustment in stable conditions. A business may record other kinds of noncash expenses, such as amortization on intangible assets, that are first cousins to depreciation. Also, a business may record noncash gains and losses in the year. For example, a business may record a loss due to an uninsured flood loss that destroyed one of its warehouses. The asset is written off and the loss is recorded; no cash outlay is caused by the loss (other than the cost of removing the rubble). In these situations, you have to add back the noncash losses and subtract noncash gains (writing up the market value of investments, for example).

Assessing cash-flow effects of growth and of decline

To assess your cash-flow scenario, start with profit plus depreciation and then ask, why is the company's cash flow higher or lower than this benchmark? You know the answer, don't you? (If you have no idea, here's a hint: Refer to the earlier section "Adjusting your way to cash flow from operating activities.") The changes during the period in the assets accounts receivable, inventories, and prepaid expenses, as well as the changes in the liabilities accounts payable, accrued expenses payable, and income tax payable, help or hinder cash flow. To remind you: Asset increases and liability decreases hurt cash flow, and asset decreases and liability increases help cash flow.



The amount of depreciation is not driven by current events or recent transactions; it's largely historical. The calculation of depreciation is based on a predetermined schedule that reaches back to the earliest years in which the fixed assets were acquired. In most situations, the bulk of a company's fixed assets were acquired some years ago. In sharp contrast, the changes in the other cash-flow factors — accounts receivable, inventories, and so on — are driven by recent transactions.

In the example scenario way back in Figure 4-1, the changes in assets and liabilities cause a \$15,000 net negative adjustment to cash flow. (Do the arithmetic to check our calculation if you like.) Taking into account these several changes, cash flow is calculated as follows:

$$\begin{aligned} &\$435,000 \text{ cash flow from net income and depreciation} - \$15,000 \text{ net} \\ &\text{change in other cash flow factors} = \$420,000 \text{ cash flow} \end{aligned}$$

When a business experiences rapid sales growth, its accounts receivable and inventories grow rapidly also. Sizable increases in these two areas can put a big dent in current cash flow. These negative cash-flow effects can be partially offset with increases in accounts payable and accrued expenses payable, but only in part. Rapid growth causes a cash-flow penalty as the business pumps up its receivables and inventories. In extreme cases, the increases in accounts receivable and inventories can get very large and cause a negative cash flow for the year.

When a business has a rapid decline in sales, its cash flow, ironically, may improve because the business's accounts receivable and inventory assets decline as rapidly as sales. However, a business may not be able to reduce expenses as quickly as its drop in sales, which results in a loss. In these situations, a business may suffer a negative cash flow: Cash inflow from sales may be significantly less than cash outflow for expenses. See the next section for more info.



Suppose, for example, that sales revenue increases 30 percent over last year. You would then expect a corresponding increase in accounts receivable and inventories (usually the two biggest cash-flow adjustments to net income). Alternatively, if sales revenue drops 30 percent, these two assets probably drop more or less the same percent. However, life is not so simple. The actual changes in receivables and inventories may be out of step with the change in sales revenue, and there may be good business reasons for the deviations. Managers should know the reasons, of course. However, discrepancies between changes in accounts receivable and inventories and the growth or decline in sales revenue are generally not commented on in the financial reports.

Understanding negative cash flow

A negative cash flow means simply that the first section of the statement of cash flows (refer to Figure 4-1) reports a *decrease* in cash flow from the operating activities of the business during the period. Unless the decrease is offset with cash increases from investing activities (possible but not too likely) or increases from financing activities, the business suffers a decrease in its cash balance during the year.

Mention that a business has negative cash flow, and most people have a knee-jerk reaction: The business must be in deep trouble and on the edge of bankruptcy. Not so fast. In reading a financial report, look for the reasons behind the numbers, which can tell you the real story. The causes of a negative cash flow for the year may be temporary and unlikely to repeat in later years. Then again, the reasons may be systemic and likely to continue until drastic action is taken by the business.

The starting point is looking at why cash flow from operating activities is negative. The worst-case scenario is when a business records a large net loss for the year and the cash-flow adjustments don't mitigate the loss. Suppose, for example, that a business reports \$2,000,000 bottom-line loss for its most recent year. It recorded \$300,000 depreciation expense for the year. So its negative cash flow is \$1,700,000 before looking at the changes in its other assets and liabilities. Decreases in accounts receivable and inventories combined with increases in accounts payable and accrued expenses payable may be large enough to overcome the negative \$1,700,000 cash flow, but probably not. In fact, the changes in the assets and liabilities may be in the wrong direction and aggravate negative cash flow.



When a business has negative cash flow, financial analysts pay particular attention to its cash *burn rate*. The amount of negative cash flow per month is divided into its available cash balance to see how long the business can survive before it runs out of cash. During their start-up phases, new businesses typically have relatively large negative cash flow until they get over the hump and start bringing in enough sales revenue to get the company into the profit

column. The cash burn rate is a rough measure of how long they have to get their sales up to speed.

It hardly needs mentioning that a business should quickly solve its negative cash-flow problem. If it's caused by a one-time extraordinary event that won't be repeated (for example, a business may have been forced to make a huge expenditure to remove asbestos in its plant and offices), then the loss won't be repeated next year and the managers have nothing to worry about. On the other hand, the problem may be that the business's sales prices are too low and/or its expenses are too high. In that case, unless things are turned around, the business is on a negative cash-flow death march.

Recognizing Problems with the Statement of Cash Flows

As we note in the opening to this chapter, the statement of cash flows has been around for about a quarter of a century. At the time of writing this book, generally accepted financial reporting standards — which include the requirement that a statement of cash flows be included with financial reports — apply to all businesses, public and private and large and small. However, some facts about the statement of cash flows make it a less-than-ideal tool for understanding the cash-flow situation of your own business and that of other businesses. The primary problems occur when small businesses skip creating the statement altogether and when businesses include too much or not enough information in the statement.

Getting skipped by small businesses

Practicing CPAs would admit off the record that private companies are cut a lot of slack in financial reporting. Some private companies don't even include the statement of cash flows in their financial reports. They include a balance sheet and an income statement, but not a cash-flows statement. In contrast, public companies, without exception, include a statement of cash flows in their external financial reports, because failing to do so would jeopardize the trading in their securities. Their CPA auditors would find fault and the Securities & Exchange Commission would take action to force the business to report a statement of cash flows.



Smaller businesses may find preparing a cash-flow statement difficult. Many small businesses do not employ a full-time qualified accountant. Their book-keeper may not know how to prepare this financial statement. The small business may decide not to hire a CPA or other trained person who knows how to prepare the statement of cash flows. This statement isn't prepared in a straightforward manner from the accounts kept by a business; the cash-flow

figures reported in the statement have to be “backed out” from the information in the accounts of the business and the comparative balance sheet of the business at the start and end of the period. We don’t go into the accounting techniques for preparing the statement of cash flows, because preparing this statement is a demanding “extra step” that many private businesses evidently either cannot do or don’t bother to do. We’ve even talked to CPAs who aren’t sure footed regarding the preparation of this statement. Accountants are not cash-flow people.

As of 2011, a movement is underway to allow private businesses to make exceptions and modifications to generally accepted financial accounting standards, but nothing has been set in concrete yet. We would be surprised if private businesses were allowed to skip reporting a statement of cash flows. But you never know.

Providing too much or too little information

Another problem with the statement of cash flows concerns the number of lines of information in the statement. Many cash flow statements have 30, 40, or more lines of information. (The cash flow statement in Figure 4-1 is relatively simple, with only 18 lines of information.) Therefore, this financial statement can be very demanding on the reader. Should a business expect readers to spend 30 minutes or more reading the statement? In short, all too many statements of cash flow suffer from information overload. Therefore, readers have to pick and choose what information they want to absorb; most won’t take time to pore over every line.

Despite the sometimes overwhelming amount of information in the statement of cash flows, it doesn’t really lay bare the cash-flow strategy and policies of a business. You can (and theoretically should) read the statement line by line. But after reading all the lines, getting a clear picture of the financial strategy of a business is still difficult. What’s needed is management commentary and explanation concerning cash flow and the company’s long-run cash-flow plan in the context of its overall financial strategy. Here’s one example: If a business is sitting on a large cash balance and has a strong cash flow, it would be helpful for the CEO or president to explain what’s going on. But you don’t usually find explanatory comments about cash flow in financial reports.

Another complicating detail is that in many statements of cash flows, one or more amounts reported in the statement cannot be reconciled or matched up with their corresponding changes during the year that are reported in

the balance sheet. For example, the amount of the adjustment to net income for the change in accounts receivable may not tie out with the difference between the beginning and ending balances that are reported for accounts receivable in the balance sheet. Many readers may not care about such loose ends. But the lack of clear-cut connections between the comparative balance sheet and the amounts in the statement of cash flows is frustrating to financial analysts and others who do a close reading of a company's financial report.



Business managers definitely should understand and control cash flow. However, the design of the statement of cash flows for external reports is not necessarily the best layout for internal reporting to managers. Business managers, working with their accountants, should devise a report design that is most useful for their planning and controlling of cash flows. The statement of cash flows that is included in external financial reports should not be a strait-jacket for the internal reporting of cash flows to managers. (We explore cash-flow reporting for managers in Chapter 7.)

The role of cash flow in business valuation

When a company's owners decide to put the business up for sale, and in certain other situations, they need to put a value on the business. The number one factor in determining a value of a business is its cash flow from operating activities, which typically is called simply *cash flow*. Other factors come into play, including the debt load of the business, continuity or replacement of management, long-run business trends, the location(s) of the business, and many other

considerations. But in most situations, the dominant factor is the business's potential to generate future cash flow.

The topic of business valuation is beyond the scope of this book. If you want to delve into the topic, we recommend our book *Small Business Financial Management Kit For Dummies* (John Wiley & Sons, Inc.).