



A Look Back

Chapter 11 focused on capital budgeting. It explained and illustrated several methods that help identify projects with the higher return on investment.



A Look at This Chapter

This chapter focuses on reporting and analyzing cash inflows and cash outflows. We emphasize how to prepare and interpret the statement of cash flows.



A Look Ahead

Chapter 13 focuses on tools to help us analyze financial statements. We also describe comparative analysis and the application of ratios for financial analysis.

12

Chapter

Reporting and Analyzing Cash Flows

Learning Objectives

CAP

Conceptual

- C1** Explain the purpose and importance of cash flow information. (p. 424)
- C2** Distinguish between operating, investing, and financing activities. (p. 425)
- C3** Identify and disclose noncash investing and financing activities. (p. 427)
- C4** Describe the format of the statement of cash flows. (p. 427)

Analytical

- A1** Analyze the statement of cash flows. (p. 441)
- A2** Compute and apply the cash flow on total assets ratio. (p. 442)

Procedural

- P1** Prepare a statement of cash flows. (p. 428)
- P2** Compute cash flows from operating activities using the indirect method. (p. 431)
- P3** Determine cash flows from both investing and financing activities. (p. 437)
- P4** Appendix 12A—Illustrate use of a spreadsheet to prepare a statement of cash flows. (p. 445)
- P5** Appendix 12B—Compute cash flows from operating activities using the direct method. (p. 448)



LP12



Decision Feature

Wizard of Odd



FAIRFIELD, OH—Jim Bonaminio built his roadside produce stand while living in an abandoned gas station. “I would get up and leave at 4 in the morning to buy everything fresh [and] my wife opened the market at 8 a.m.,” recalls Jim. “By 10 o’clock at night, we’d be sitting on the bed balancing the register receipts . . . we worked seven days a week.” The fruit of those early efforts is **Jungle Jim’s International Market (JungleJims.com)**.

Jungle Jim’s is no Wal-Mart wannabe, but it is arguably America’s wackiest supermarket. Instead of trying to beat the big chains at the price-squeezing game, Jim’s is a funhouse maze of a store. A seven-foot Elvis lion sings “Jailhouse Rock,” an antique fire engine rests atop cases of hot sauce, port-a-potties lead to fancy restrooms, and Robin Hood greets customers with English food set within a 30-foot-tall Sherwood Forest. This is just a sampling.

“If you don’t go out on a limb, then you’re just like everybody else,” insists Jim. “The stuff I’ve collected—all sorts of weird stuff—gets

“If you put enough energy into your dream, you can make anything happen” —Jim Bonaminio

reused.” Despite the wackiness, Jim is first and foremost a businessman. He learned firsthand about the importance of monitoring cash inflows and cash outflows. In the early days, recalls Jim, it was all about sales and profits. Then, inventory and asset growth yielded negative cash flows, and Jim was in a pinch. That’s when he realized that tracking cash flows was important, explains Jim.

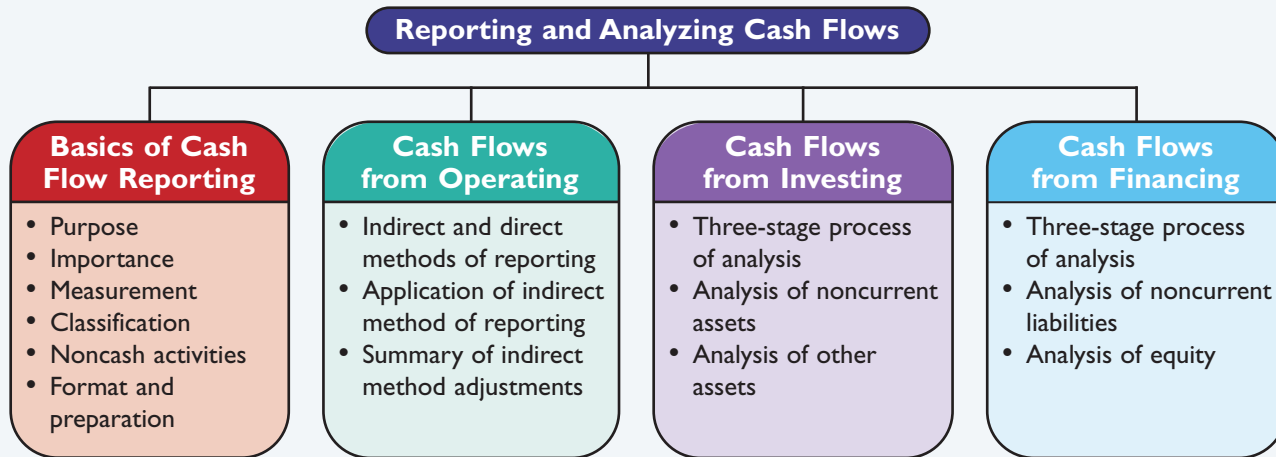
Jim eventually learned how to monitor and control cash flows for each of his operating, investing, and financing activities. Today, says Jim, “I hire professional people to [help me monitor cash] . . . and to look for ways to make money.” Yet Jim explains that he always reviews the statement of cash flows and the individuals cash inflows and outflows.

Yet cash management has not curtailed Jim’s fun-loving approach to business. “I’m trying to create something that has never been done,” laughs Jim. “I just want to see if I can do it and have fun.”

[Sources: *Jungle Jim’s Website*, March 2009; *BusinessWeek*, April 2005; *Country Living*, November 2004; *Miamian*, Summer 2004; *Plain Dealer*, November 2004; *Supermarket News*, September 2006; *Cintas*, August 2007]

A company cannot achieve or maintain profits without carefully managing cash. Managers and other users of information pay attention to a company's cash position and the events and transactions affecting cash. This chapter explains how we prepare, analyze, and interpret a statement of cash flows. It also

discusses the importance of cash flow information for predicting future performance and making managerial decisions. More generally, effectively using the statement of cash flows is crucial for managing and analyzing the operating, investing, and financing activities of businesses.



Basics of Cash Flow Reporting

This section describes the basics of cash flow reporting, including its purpose, measurement, classification, format, and preparation.

Purpose of the Statement of Cash Flows

C1 Explain the purpose and importance of cash flow information.

The purpose of the **statement of cash flows** is to report cash receipts (inflows) and cash payments (outflows) during a period. This includes separately identifying the cash flows related to operating, investing, and financing activities. The statement of cash flows does more than simply report changes in cash. It is the detailed disclosure of individual cash flows that makes this statement useful to users. Information in this statement helps users answer questions such as these:

- How does a company obtain its cash?
- Where does a company spend its cash?
- What explains the change in the cash balance?

The statement of cash flows addresses important questions such as these by summarizing, classifying, and reporting a company's cash inflows and cash outflows for each period.

Importance of Cash Flows

Information about cash flows can influence decision makers in important ways. For instance, we look more favorably at a company that is financing its expenditures with cash from operations than one that does it by selling its assets. Information about cash flows helps users decide whether a company has enough cash to pay its existing debts as they mature. It is also relied upon to evaluate a company's ability to meet unexpected obligations and pursue unexpected opportunities. External information users especially want to assess a company's ability to take advantage of new business opportunities. Internal users such as managers use cash flow information to plan day-to-day operating activities and make long-term investment decisions.

Macy's striking turnaround is an example of how analysis and management of cash flows can lead to improved financial stability. Several years ago Macy's obtained temporary protection from bankruptcy, at which time it desperately needed to improve its cash flows. It did so by engaging in aggressive cost-cutting measures. As a result, Macy's annual cash flow rose to \$210 million, up from a negative cash flow of \$38.9 million in the prior year. Macy's eventually met its financial obligations and then successfully merged with **Federated Department Stores**.

Point: Internal users rely on the statement of cash flows to make investing and financing decisions. External users rely on this statement to assess the amount and timing of a company's cash flows.



The case of **W. T. Grant Co.** is a classic example of the importance of cash flow information in predicting a company's future performance and financial strength. Grant reported net income of more than \$40 million per year for three consecutive years. At that same time, it was experiencing an alarming decrease in cash provided by operations. For instance, net cash outflow was more than \$90 million by the end of that three-year period. Grant soon went bankrupt. Users who relied solely on Grant's income numbers were unpleasantly surprised. This reminds us that cash flows as well as income statement and balance sheet information are crucial in making business decisions.



Video 12.1

Decision Insight

Cash Savvy "A lender must have a complete understanding of a borrower's cash flows to assess both the borrowing needs and repayment sources. This requires information about the major types of cash inflows and outflows. I have seen many companies, whose financial statements indicate good profitability, experience severe financial problems because the owners or managers lacked a good understanding of cash flows."—Mary E. Garza, **Bank of America**.

Measurement of Cash Flows

Cash flows are defined to include both *cash* and *cash equivalents*. The statement of cash flows explains the difference between the beginning and ending balances of cash and cash equivalents. We continue to use the phrases *cash flows* and the *statement of cash flows*, but we must remember that both phrases refer to cash and cash equivalents. Recall that a cash equivalent must satisfy two criteria: (1) be readily convertible to a known amount of cash and (2) be sufficiently close to its maturity so its market value is unaffected by interest rate changes. In most cases, a debt security must be within three months of its maturity to satisfy these criteria. Companies must disclose and follow a clear policy for determining cash and cash equivalents and apply it consistently from period to period. **American Express**, for example, defines its cash equivalents as "time deposits and other highly liquid investments with original maturities of 90 days or less."



Classification of Cash Flows

Since cash and cash equivalents are combined, the statement of cash flows does not report transactions between cash and cash equivalents such as cash paid to purchase cash equivalents and cash received from selling cash equivalents. However, all other cash receipts and cash payments are classified and reported on the statement as operating, investing, or financing activities. Individual cash receipts and payments for each of these three categories are labeled to identify their originating transactions or events. A net cash inflow (source) occurs when the receipts in a category exceed the payments. A net cash outflow (use) occurs when the payments in a category exceed the receipts.

C2 Distinguish between operating, investing, and financing activities.

Operating Activities **Operating activities** include those transactions and events that determine net income. Examples are the production and purchase of merchandise, the sale of goods and services to customers, and the expenditures to administer the business. Not all items in income, such as unusual gains and losses, are operating activities (we discuss these exceptions later in the chapter). Exhibit 12.1 lists the more common cash inflows and outflows from operating activities. (Although cash receipts and cash payments from buying and selling trading

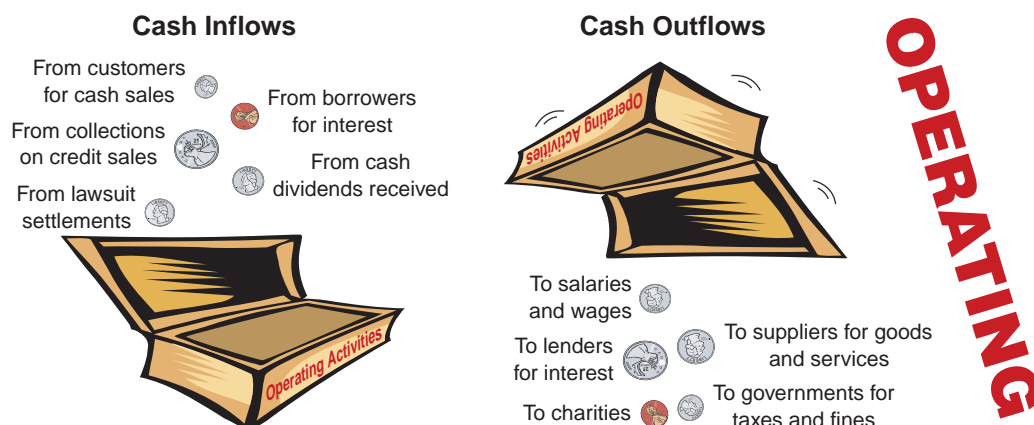


EXHIBIT 12.1

Cash Flows from Operating Activities

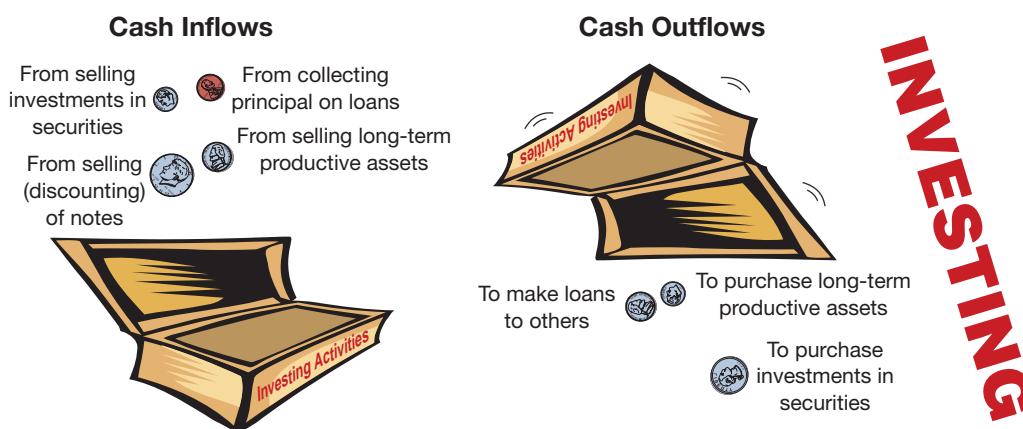
securities are often reported under operating activities, new standards require that these receipts and payments be classified based on the nature and purpose of those securities.)

Investing Activities Investing activities generally include those transactions and events that affect long-term assets, namely, the purchase and sale of long-term assets. They also include the (1) purchase and sale of short-term investments in the securities of other entities, other than cash equivalents and trading securities and (2) lending and collecting money for notes receivable. Exhibit 12.2 lists examples of cash flows from investing activities. Proceeds from collecting the principal amounts of notes deserve special mention. If the note results from sales to customers, its cash receipts are classed as operating activities whether short term or long term. If the note results from a loan to another party apart from sales, however, the cash receipts from collecting the note principal are classed as an investing activity. The FASB requires the collection of interest on loans be reported as an operating activity.

Point: The FASB requires that cash dividends received and cash interest received be reported as operating activities.

EXHIBIT 12.2

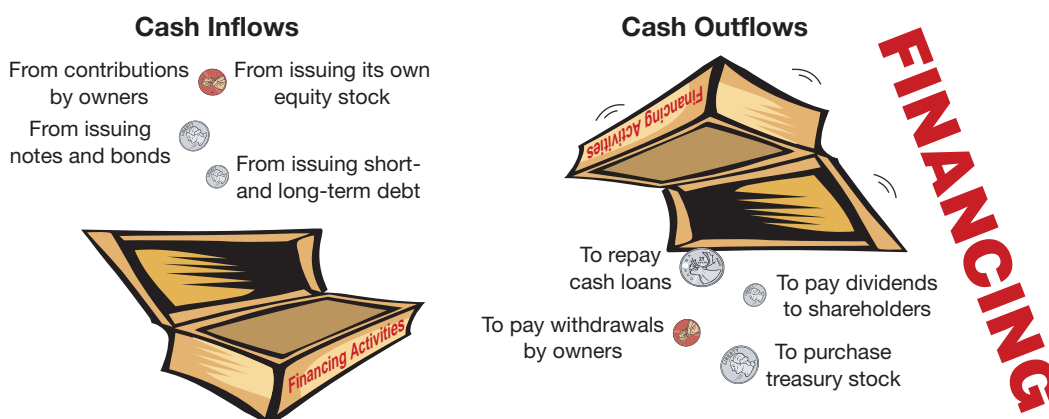
Cash Flows from Investing Activities



Financing Activities Financing activities include those transactions and events that affect long-term liabilities and equity. Examples are (1) obtaining cash from issuing debt and repaying the amounts borrowed and (2) receiving cash from or distributing cash to owners. These activities involve transactions with a company's owners and creditors. They also often involve borrowing and repaying principal amounts relating to both short- and long-term debt. GAAP requires that payments of interest expense be classified as operating activities. Also, cash payments to settle credit purchases of merchandise, whether on account or by note, are operating activities. Exhibit 12.3 lists examples of cash flows from financing activities.

EXHIBIT 12.3

Cash Flows from Financing Activities



Point: Interest payments on a loan are classified as operating activities, but payments of loan principal are financing activities.

Decision Insight

Cash Reporting Cash flows can be delayed or accelerated at the end of a period to improve or reduce current period cash flows. Also, cash flows can be misclassified. Cash outflows reported under operations are interpreted as expense payments. However, cash outflows reported under investing activities are interpreted as a positive sign of growth potential. Thus, managers face incentives to misclassify cash flows. For these reasons, cash flow reporting warrants our scrutiny.

Noncash Investing and Financing

When important investing and financing activities do not affect cash receipts or payments, they are still disclosed at the bottom of the statement of cash flows or in a note to the statement because of their importance and the *full-disclosure principle*. One example of such a transaction is the purchase of long-term assets using a long-term note payable (loan). This transaction involves both investing and financing activities but does not affect any cash inflow or outflow and is not reported in any of the three sections of the statement of cash flows. This disclosure rule also extends to transactions with partial cash receipts or payments.

To illustrate, assume that Goorin purchases land for \$12,000 by paying \$5,000 cash and trading in used equipment worth \$7,000. The investing section of the statement of cash flows reports only the \$5,000 cash outflow for the land purchase. The \$12,000 investing transaction is only partially described in the body of the statement of cash flows, yet this information is potentially important to users because it changes the makeup of assets. Goorin could either describe the transaction in a footnote or include information at the bottom of its statement that lists the \$12,000 land purchase along with the cash financing of \$5,000 and a \$7,000 trade-in of equipment. As another example, Borg Co. acquired \$900,000 of assets in exchange for \$200,000 cash and a \$700,000 long-term note, which should be reported as follows:

Fair value of assets acquired	\$900,000
Less cash paid	200,000
Liabilities incurred or assumed	\$700,000

Exhibit 12.4 lists transactions commonly disclosed as noncash investing and financing activities.

- Retirement of debt by issuing equity stock.
- Conversion of preferred stock to common stock.
- Lease of assets in a capital lease transaction.
- Purchase of long-term assets by issuing a note or bond.
- Exchange of noncash assets for other noncash assets.
- Purchase of noncash assets by issuing equity or debt.

C3 Identify and disclose noncash investing and financing activities.

Point: A stock dividend transaction involving a transfer from retained earnings to common stock or a credit to contributed capital is *not* considered a non-cash investing and financing activity because the company receives no consideration for shares issued.

EXHIBIT 12.4

Examples of Noncash Investing and Financing Activities

Format of the Statement of Cash Flows

Accounting standards require companies to include a statement of cash flows in a complete set of financial statements. This statement must report information about a company's cash receipts and cash payments during the period. Exhibit 12.5 shows the usual format. A company must report cash flows from three activities: operating, investing, and financing. The statement explains how transactions and events impact the prior period-end cash (and cash equivalents) balance to produce its current period-end balance.

C4 Describe the format of the statement of cash flows.

COMPANY NAME	
Statement of Cash Flows	
For period Ended date	
Cash flows from operating activities	
[List of individual inflows and outflows]	
Net cash provided (used) by operating activities	\$ #
Cash flows from investing activities	
[List of individual inflows and outflows]	
Net cash provided (used) by investing activities	#
Cash flows from financing activities	
[List of individual inflows and outflows]	
Net cash provided (used) by financing activities	#
Net increase (decrease) in cash	\$ #
Cash (and equivalents) balance at prior period-end	#
Cash (and equivalents) balance at current period-end	\$ #

Separate schedule or note disclosure of any "noncash investing and financing transactions" is required.

EXHIBIT 12.5

Format of the Statement of Cash Flows

**Decision Maker**

Entrepreneur You are considering purchasing a start-up business that recently reported a \$110,000 annual net loss and a \$225,000 annual net cash inflow. How are these results possible? [Answer—p. 454]

Quick Check

Answers—p. 454

1. Does a statement of cash flows report the cash payments to purchase cash equivalents? Does it report the cash receipts from selling cash equivalents?
2. Identify the three categories of cash flows reported separately on the statement of cash flows.
3. Identify the cash activity category for each transaction: (a) purchase equipment for cash, (b) cash payment of wages, (c) sale of common stock for cash, (d) receipt of cash dividends from stock investment, (e) cash collection from customers, (f) notes issued for cash.

Preparing the Statement of Cash Flows

P1 Prepare a statement of cash flows.

Preparing a statement of cash flows involves five steps: (1) compute the net increase or decrease in cash; (2) compute and report net cash provided or used by operating activities (using either the direct or indirect method; both are explained); (3) compute and report net cash provided or used by investing activities; (4) compute and report net cash provided or used by financing activities; and (5) compute the net cash flow by combining net cash provided or used by operating, investing, and financing activities and then *prove it* by adding it to the beginning cash balance to show that it equals the ending cash balance.

Step 1: Compute net increase or decrease in cash



Step 2: Compute net cash from operating activities



Step 3: Compute net cash from investing activities



Step 4: Compute net cash from financing activities



Step 5: Prove and report beginning and ending cash balances



Computing the net increase or net decrease in cash is a simple but crucial computation. It equals the current period's cash balance minus the prior period's cash balance. This is the *bottom-line* figure for the statement of cash flows and is a check on accuracy. The information we need to prepare a statement of cash flows comes from various sources including comparative balance sheets at the beginning and end of the period, and an income statement for the period. There are two alternative approaches to preparing the statement: (1) analyzing the Cash account and (2) analyzing noncash accounts.

Analyzing the Cash Account A company's cash receipts and cash payments are recorded in the Cash account in its general ledger. The Cash account is therefore a natural place to look for information about cash flows from operating, investing, and financing activities. To illustrate, review the summarized Cash T-account of Genesis, Inc., in Exhibit 12.6. Individual cash transactions are summarized in this Cash account according to the major types of cash receipts and cash payments. For instance, only the total of cash receipts from all customers is listed. Individual cash transactions underlying these totals can number in the thousands. Accounting software is available to provide summarized cash accounts.

Preparing a statement of cash flows from Exhibit 12.6 requires determining whether an individual cash inflow or outflow is an operating, investing, or financing activity, and then listing each by

Cash	
Balance, Dec. 31, 2008	12,000
Receipts from customers	570,000
Receipts from asset sales	12,000
Receipts from stock issuance ..	15,000
Balance, Dec. 31, 2009	17,000
Payments for merchandise	319,000
Payments for wages and operating expenses	218,000
Payments for interest	8,000
Payments for taxes	5,000
Payments for assets	10,000
Payments for notes retirement	18,000
Payments for dividends	14,000

EXHIBIT 12.6

Summarized Cash Account

activity. This yields the statement shown in Exhibit 12.7. However, preparing the statement of cash flows from an analysis of the summarized Cash account has two limitations. First, most companies have many individual cash receipts and payments, making it difficult to review them all. Accounting software minimizes this burden, but it is still a task requiring professional judgment for many transactions. Second, the Cash account does not usually carry an adequate description of each cash transaction, making assignment of all cash transactions according to activity difficult.

Point: View the change in cash as a target number that we will fully explain and prove in the statement of cash flows.

GENESIS	
Statement of Cash Flows	
For Year Ended December 31, 2009	
Cash flows from operating activities	
Cash received from customers	\$570,000
Cash paid for merchandise	(319,000)
Cash paid for wages and other operating expenses	(218,000)
Cash paid for interest	(8,000)
Cash paid for taxes	(5,000)
Net cash provided by operating activities	\$20,000
Cash flows from investing activities	
Cash received from sale of plant assets	12,000
Cash paid for purchase of plant assets	(10,000)
Net cash provided by investing activities	2,000
Cash flows from financing activities	
Cash received from issuing stock	15,000
Cash paid to retire notes	(18,000)
Cash paid for dividends	(14,000)
Net cash used in financing activities	(17,000)
Net increase in cash	\$ 5,000
Cash balance at prior year-end	12,000
Cash balance at current year-end	\$17,000

EXHIBIT 12.7

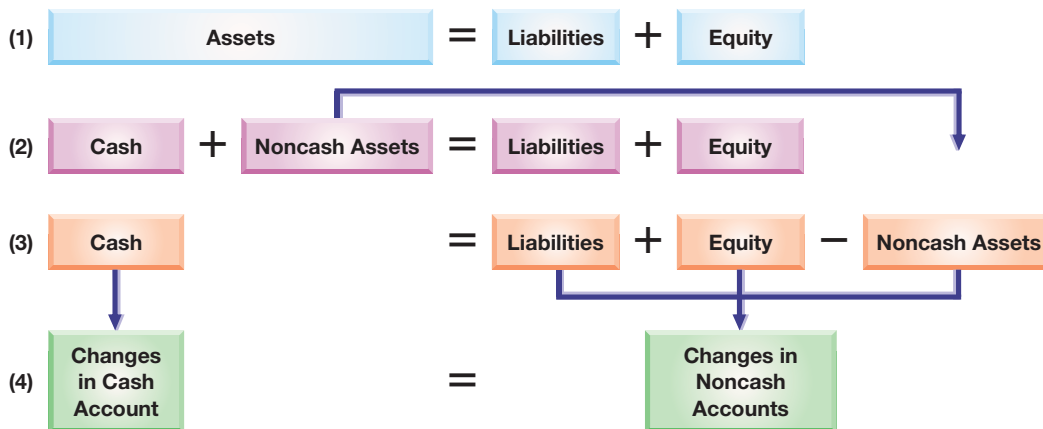
Statement of Cash Flows—
Direct Method

Analyzing Noncash Accounts A second approach to preparing the statement of cash flows is analyzing noncash accounts. This approach uses the fact that when a company records cash inflows and outflows with debits and credits to the Cash account (see Exhibit 12.6), it also records credits and debits in noncash accounts (reflecting double-entry accounting). Many of these noncash accounts are balance sheet accounts, for instance, from the sale of land for cash. Others are revenue and expense accounts that are closed to equity. For instance, the sale of services for cash yields a credit to Services Revenue that is closed to Retained Earnings for a corporation. In sum, *all cash transactions eventually affect noncash balance sheet accounts*. Thus, we can determine cash inflows and outflows by analyzing changes in noncash balance sheet accounts.

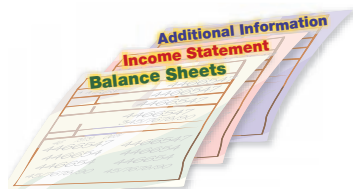
Exhibit 12.8 uses the accounting equation to show the relation between the Cash account and the noncash balance sheet accounts. This exhibit starts with the accounting equation at the top. It is then expanded in line (2) to separate cash from noncash asset accounts. Line (3) moves noncash asset accounts to the right-hand side of the equality where they are subtracted. This shows that cash equals the sum of the liability and equity accounts *minus* the noncash asset accounts. Line (4) points

EXHIBIT 12.8

Relation between Cash and Noncash Accounts



out that *changes* on one side of the accounting equation equal *changes* on the other side. It shows that we can explain changes in cash by analyzing changes in the noncash accounts consisting of liability accounts, equity accounts, and noncash asset accounts. By analyzing noncash balance sheet accounts and any related income statement accounts, we can prepare a statement of cash flows.



Information to Prepare the Statement Information to prepare the statement of cash flows usually comes from three sources: (1) comparative balance sheets, (2) current income statement, and (3) additional information. Comparative balance sheets are used to compute changes in noncash accounts from the beginning to the end of the period. The current income statement is used to help compute cash flows from operating activities. Additional information often includes details on transactions and events that help explain both the cash flows and noncash investing and financing activities.

Decision Insight

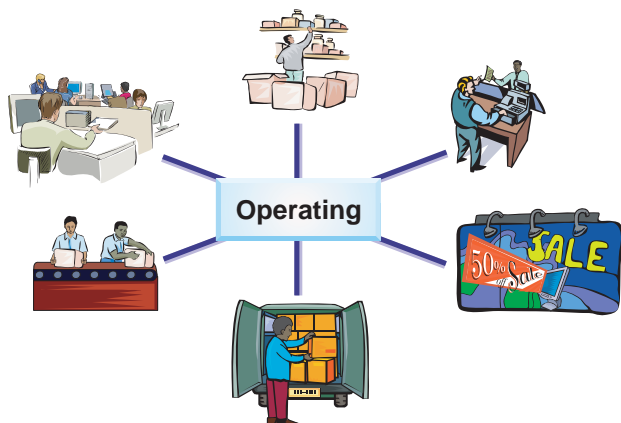
e-Cash Every credit transaction on the Net leaves a trail that a hacker or a marketer can pick up. Enter e-cash—or digital money. The encryption of e-cash protects your money from snoops and thieves and cannot be traced, even by the issuing bank.



Cash Flows from Operating

Indirect and Direct Methods of Reporting

Cash flows provided (used) by operating activities are reported in one of two ways: the *direct method* or the *indirect method*. **These two different methods apply only to the operating activities section.**



The **direct method** separately lists each major item of operating cash receipts (such as cash received from customers) and each major item of operating cash payments (such as cash paid for merchandise). The cash payments are subtracted from cash receipts to determine the net cash provided (used) by operating activities. The operating activities section of Exhibit 12.7 reflects the direct method of reporting operating cash flows.

The **indirect method** reports net income and then adjusts it for items necessary to obtain net cash provided or used by operating activities. It does *not* report individual items of cash inflows and cash outflows from operating activities. Instead, the indirect method reports the necessary adjustments to reconcile net income to net cash provided or used by operating activities. The operating activities section for Genesis prepared under the indirect method is shown in Exhibit 12.9.

Cash flows from operating activities	
Net income	\$ 38,000
Adjustments to reconcile net income to net cash provided by operating activities	
Increase in accounts receivable	(20,000)
Increase in merchandise inventory	(14,000)
Increase in prepaid expenses	(2,000)
Decrease in accounts payable	(5,000)
Decrease in interest payable	(1,000)
Increase in income taxes payable	10,000
Depreciation expense	24,000
Loss on sale of plant assets	6,000
Gain on retirement of notes	<u>(16,000)</u>
Net cash provided by operating activities	\$20,000

EXHIBIT 12.9Operating Activities Section—
Indirect Method

The net cash amount provided by operating activities is identical under both the direct and indirect methods. This equality always exists. The difference in these methods is with the computation and presentation of this amount. The FASB recommends the direct method, but because it is not required and the indirect method is arguably easier to compute, nearly all companies report operating cash flows using the indirect method.

To illustrate, we prepare the operating activities section of the statement of cash flows for Genesis. Exhibit 12.10 shows the December 31, 2008 and 2009, balance sheets of Genesis along with its 2009 income statement. We use this information to prepare a statement of cash flows that explains the \$5,000 increase in cash for 2009 as reflected in its balance sheets. This \$5,000 is computed as Cash of \$17,000 at the end of 2009 minus Cash of \$12,000 at the end of 2008. Genesis discloses additional information on its 2009 transactions:

- a. The accounts payable balances result from merchandise inventory purchases.
- b. Purchased \$70,000 in plant assets by paying \$10,000 cash and issuing \$60,000 of notes payable.
- c. Sold plant assets with an original cost of \$30,000 and accumulated depreciation of \$12,000 for \$12,000 cash, yielding a \$6,000 loss.
- d. Received \$15,000 cash from issuing 3,000 shares of common stock.
- e. Paid \$18,000 cash to retire notes with a \$34,000 book value, yielding a \$16,000 gain.
- f. Declared and paid cash dividends of \$14,000.

The next section describes the indirect method. Appendix 12B describes the direct method. An instructor can choose to cover either one or both methods. Neither section depends on the other.

Application of the Indirect Method of Reporting

Net income is computed using accrual accounting, which recognizes revenues when earned and expenses when incurred. Revenues and expenses do not necessarily reflect the receipt and payment of cash. The indirect method of computing and reporting net cash flows from operating activities involves adjusting the net income figure to obtain the net cash provided or used by operating activities. This includes subtracting noncash increases (credits) from net income and adding noncash charges (debits) back to net income.

To illustrate, the indirect method begins with Genesis's net income of \$38,000 and adjusts it to obtain net cash provided by operating activities of \$20,000. Exhibit 12.11 shows the results of the indirect method of reporting operating cash flows, which adjusts net income for three types of adjustments. There are adjustments ① to reflect changes in noncash current assets and current liabilities related to operating activities, ② to income statement items involving operating activities that do not affect cash inflows or outflows, and ③ to eliminate gains and losses resulting from investing and financing activities (not part of operating activities). This section describes each of these adjustments.

Point: To better understand the direct and indirect methods of reporting operating cash flows, identify similarities and differences between Exhibits 12.7 and 12.11.



Video 12.1

P2 Compute cash flows from operating activities using the indirect method.

Point: Noncash credits refer to revenue amounts reported on the income statement that are not collected in cash this period. Noncash charges refer to expense amounts reported on the income statement that are not paid this period.

EXHIBIT 12.10

Financial Statements

GENESIS Income Statement For Year Ended December 31, 2009		
Sales		\$590,000
Cost of goods sold	\$300,000	
Wages and other operating expenses ..	216,000	
Interest expense	7,000	
Depreciation expense	<u>24,000</u>	<u>(547,000)</u>
		43,000
Other gains (losses)		
Gain on retirement of notes	16,000	
Loss on sale of plant assets	<u>(6,000)</u>	<u>10,000</u>
Income before taxes		53,000
Income taxes expense		<u>(15,000)</u>
Net income		<u>\$ 38,000</u>

GENESIS Balance Sheets December 31, 2009 and 2008		
	<u>2009</u>	<u>2008</u>
Assets		
Current assets		
Cash	\$ 17,000	\$ 12,000
Accounts receivable	60,000	40,000
Merchandise inventory	84,000	70,000
Prepaid expenses	<u>6,000</u>	<u>4,000</u>
Total current assets	167,000	126,000
Long-term assets		
Plant assets	250,000	210,000
Accumulated depreciation	<u>(60,000)</u>	<u>(48,000)</u>
Total assets	<u>\$357,000</u>	<u>\$288,000</u>
Liabilities		
Current liabilities		
Accounts payable	\$ 35,000	\$ 40,000
Interest payable	3,000	4,000
Income taxes payable	<u>22,000</u>	<u>12,000</u>
Total current liabilities	60,000	56,000
Long-term notes payable	<u>90,000</u>	<u>64,000</u>
Total liabilities	150,000	120,000
Equity		
Common stock, \$5 par	95,000	80,000
Retained earnings	<u>112,000</u>	<u>88,000</u>
Total equity	<u>207,000</u>	<u>168,000</u>
Total liabilities and equity	<u>\$357,000</u>	<u>\$288,000</u>

① **Adjustments for Changes in Current Assets and Current Liabilities** This section describes adjustments for changes in noncash current assets and current liabilities.

Point: Operating activities are typically those that determine income, which are often reflected in changes in current assets and current liabilities.

Adjustments for changes in noncash current assets. Changes in noncash current assets normally result from operating activities. Examples are sales affecting accounts receivable and building usage affecting prepaid rent. Decreases in noncash current assets yield the following adjustment:

Decreases in noncash current assets are added to net income.

To see the logic for this adjustment, consider that a decrease in a noncash current asset such as accounts receivable suggests more available cash at the end of the period compared to the beginning. This is so because a decrease in accounts receivable implies higher cash receipts than reflected in sales. We add these higher cash receipts (from decreases in noncash current assets) to net income when computing cash flow from operations.

In contrast, an increase in noncash current assets such as accounts receivable implies less cash receipts than reflected in sales. As another example, an increase in prepaid rent indicates that more cash is paid for rent than is deducted as rent expense. Increases in noncash current assets yield the following adjustment:

Increases in noncash current assets are subtracted from net income.

To illustrate, these adjustments are applied to the noncash current assets in Exhibit 12.10.

Accounts receivable. Accounts Receivable *increase* \$20,000, from a beginning balance of \$40,000 to an ending balance of \$60,000. This increase implies that Genesis collects less cash

than is reported in sales. That is, some of these sales were in the form of accounts receivable and that amount increased during the period. To see this it is helpful to use *account analysis*. This usually involves setting up a T-account and reconstructing its major entries to compute cash receipts or payments. The following reconstructed Accounts Receivable T-account reveals that cash receipts are less than sales:

Accounts Receivable			
Numbers in black are taken from Exhibit 12.10. The red number is the computed (plug) figure.	Bal., Dec. 31, 2008	40,000	
	Sales	590,000	Cash receipts = 570,000
	Bal., Dec. 31, 2009	60,000	

We see that sales are \$20,000 greater than cash receipts. This \$20,000—as reflected in the \$20,000 increase in Accounts Receivable—is subtracted from net income when computing cash provided by operating activities (see Exhibit 12.11).

Merchandise inventory. Merchandise inventory *increases* by \$14,000, from a \$70,000 beginning balance to an \$84,000 ending balance. This increase implies that Genesis had greater cash purchases than cost of goods sold. This larger amount of cash purchases is in the form of inventory, as reflected in the following account analysis:

Merchandise Inventory			
Bal., Dec. 31, 2008	70,000		
Purchases =	314,000	Cost of goods sold	300,000
Bal., Dec. 31, 2009	84,000		

GENESIS Statement of Cash Flows For Year Ended December 31, 2009		
Cash flows from operating activities		
Net income	\$ 38,000	
Adjustments to reconcile net income to net cash provided by operating activities		
{ Increase in accounts receivable	(20,000)	
{ Increase in merchandise inventory	(14,000)	
{ Increase in prepaid expenses	(2,000)	
① { Decrease in accounts payable	(5,000)	
{ Decrease in interest payable	(1,000)	
{ Increase in income taxes payable	10,000	
② { Depreciation expense	24,000	
③ { Loss on sale of plant assets	6,000	
{ Gain on retirement of notes	<u>(16,000)</u>	
Net cash provided by operating activities		\$20,000
Cash flows from investing activities		
Cash received from sale of plant assets	12,000	
Cash paid for purchase of plant assets	<u>(10,000)</u>	
Net cash provided by investing activities		2,000
Cash flows from financing activities		
Cash received from issuing stock	15,000	
Cash paid to retire notes	(18,000)	
Cash paid for dividends	<u>(14,000)</u>	
Net cash used in financing activities		<u>(17,000)</u>
Net increase in cash		\$ 5,000
Cash balance at prior year-end		<u>12,000</u>
Cash balance at current year-end		<u>\$17,000</u>

EXHIBIT 12.11

Statement of Cash Flows—Indirect Method

Point: Refer to Exhibit 12.10 and identify the \$5,000 change in cash. This change is what the statement of cash flows explains; it serves as a check.

The amount by which purchases exceed cost of goods sold—as reflected in the \$14,000 increase in inventory—is subtracted from net income when computing cash provided by operating activities (see Exhibit 12.11).

Prepaid expenses. Prepaid expenses *increase* \$2,000, from a \$4,000 beginning balance to a \$6,000 ending balance, implying that Genesis's cash payments exceed its recorded prepaid expenses. These higher cash payments increase the amount of Prepaid Expenses, as reflected in its reconstructed T-account:

Prepaid Expenses			
Bal., Dec. 31, 2008	4,000		
Cash payments =	218,000	Wages and other operating exp.	216,000
Bal., Dec. 31, 2009	6,000		

The amount by which cash payments exceed the recorded operating expenses—as reflected in the \$2,000 increase in Prepaid Expenses—is subtracted from net income when computing cash provided by operating activities (see Exhibit 12.11).

Adjustments for changes in current liabilities. Changes in current liabilities normally result from operating activities. An example is a purchase that affects accounts payable. Increases in current liabilities yield the following adjustment to net income when computing operating cash flows:

Increases in current liabilities are added to net income.

To see the logic for this adjustment, consider that an increase in the Accounts Payable account suggests that cash payments are less than the related (cost of goods sold) expense. As another example, an increase in wages payable implies that cash paid for wages is less than the recorded wages expense. Since the recorded expense is greater than the cash paid, we add the increase in wages payable to net income to compute net cash flow from operations.

Conversely, when current liabilities decrease, the following adjustment is required:

Decreases in current liabilities are subtracted from net income.

To illustrate, these adjustments are applied to the current liabilities in Exhibit 12.10.

Accounts payable. Accounts Payable *decrease* \$5,000, from a beginning balance of \$40,000 to an ending balance of \$35,000. This decrease implies that cash payments to suppliers exceed purchases by \$5,000 for the period, which is reflected in the reconstructed Accounts Payable T-account:

Accounts Payable			
		Bal., Dec. 31, 2008	40,000
Cash payments =	319,000	Purchases	314,000
		Bal., Dec. 31, 2009	35,000

The amount by which cash payments exceed purchases—as reflected in the \$5,000 decrease in Accounts Payable—is subtracted from net income when computing cash provided by operating activities (see Exhibit 12.11).

Interest payable. Interest Payable *decreases* \$1,000, from a \$4,000 beginning balance to a \$3,000 ending balance. This decrease indicates that cash paid for interest exceeds interest expense by \$1,000, which is reflected in the Interest Payable T-account:

Interest Payable			
		Bal., Dec. 31, 2008	4,000
Cash paid for interest =	8,000	Interest expense	7,000
		Bal., Dec. 31, 2009	3,000

The amount by which cash paid exceeds recorded expense—as reflected in the \$1,000 decrease in Interest Payable—is subtracted from net income (see Exhibit 12.11).

Income taxes payable. Income Taxes Payable increase \$10,000, from a \$12,000 beginning balance to a \$22,000 ending balance. This increase implies that reported income taxes exceed the cash paid for taxes, which is reflected in the Income Taxes Payable T-account:

Income Taxes Payable		
Cash paid for taxes = 5,000	Bal., Dec. 31, 2008	12,000
	Income taxes expense	15,000
	Bal., Dec. 31, 2009	22,000

The amount by which cash paid falls short of the reported taxes expense—as reflected in the \$10,000 increase in Income Taxes Payable—is added to net income when computing cash provided by operating activities (see Exhibit 12.11).

Summary Adjustments for Changes in Current Assets and Current Liabilities		
Account	Increases	Decreases
Noncash current assets	Deduct from NI	Add to NI
Current liabilities	Add to NI	Deduct from NI

② **Adjustments for Operating Items Not Providing or Using Cash** The income statement usually includes some expenses that do not reflect cash outflows in the period. Examples are depreciation, amortization, depletion, and bad debts expense. The indirect method for reporting operating cash flows requires that

Expenses with no cash outflows are added back to net income.

To see the logic of this adjustment, recall that items such as depreciation, amortization, depletion, and bad debts originate from debits to expense accounts and credits to noncash accounts. These entries have *no* cash effect, and we add them back to net income when computing net cash flows from operations. Adding them back cancels their deductions.

Similarly, when net income includes revenues that do not reflect cash inflows in the period, the indirect method for reporting operating cash flows requires that

Revenues with no cash inflows are subtracted from net income.

We apply these adjustments to the Genesis operating items that do not provide or use cash.

Depreciation. Depreciation expense is the only Genesis operating item that has no effect on cash flows in the period. We must add back the \$24,000 depreciation expense to net income when computing cash provided by operating activities. (We later explain that any cash outflow to acquire a plant asset is reported as an investing activity.)

③ **Adjustments for Nonoperating Items** Net income often includes losses that are not part of operating activities but are part of either investing or financing activities. Examples are a loss from the sale of a plant asset and a loss from retirement of notes payable. The indirect method for reporting operating cash flows requires that

Nonoperating losses are added back to net income.

To see the logic, consider that items such as a plant asset sale and a notes retirement are normally recorded by recognizing the cash, removing all plant asset or notes accounts, and recognizing any loss or gain. The cash received or paid is not part of operating activities but is part of either investing or financing activities. *No* operating cash flow effect occurs. However, because the nonoperating loss is a deduction in computing net income, we need to add it back to net income when computing cash flow from operations. Adding it back cancels the deduction.

Similarly, when net income includes gains not part of operating activities, the indirect method for reporting operating cash flows requires that

Nonoperating gains are subtracted from net income.

To illustrate these adjustments, we consider the nonoperating items of Genesis.

Point: An income statement reports revenues, gains, expenses, and losses on an accrual basis. The statement of cash flows reports cash received and cash paid for operating, financing, and investing activities.

Loss on sale of plant assets. Genesis reports a \$6,000 loss on sale of plant assets as part of net income. This loss is a proper deduction in computing income, but it is *not part of operating activities*. Instead, a sale of plant assets is part of investing activities. Thus, the \$6,000 nonoperating loss is added back to net income (see Exhibit 12.11). Adding it back cancels the loss. We later explain how to report the cash inflow from the asset sale in investing activities.

Gain on retirement of debt. A \$16,000 gain on retirement of debt is properly included in net income, but it is *not part of operating activities*. This means the \$16,000 nonoperating gain must be subtracted from net income to obtain net cash provided by operating activities (see Exhibit 12.11). Subtracting it cancels the recorded gain. We later describe how to report the cash outflow to retire debt.

Summary of Adjustments for Indirect Method

Exhibit 12.12 summarizes the most common adjustments to net income when computing net cash provided or used by operating activities under the indirect method.

EXHIBIT 12.12

Summary of Selected Adjustments for Indirect Method

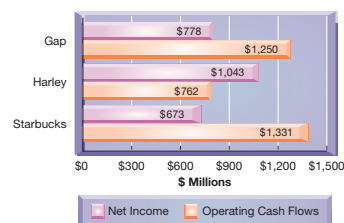
Net Income		
+ Decrease in noncash current asset	}	① Adjustments for changes in current assets and current liabilities
– Increase in noncash current asset		
+ Increase in current liability*		
– Decrease in current liability*		
+ Depreciation, depletion, and amortization	}	② Adjustments for operating items not providing or using cash
+ Losses from disposal of long-term assets and retirement of debt		
– Gains from disposal of long-term assets and retirement of debt	}	③ Adjustments for nonoperating items
Net cash provided (used) by operating activities		

* Excludes current portion of long-term debt and any (nonsales-related) short-term notes payable—both are financing activities.

The computations in determining cash provided or used by operating activities are different for the indirect and direct methods, but the result is identical. Both methods yield the same \$20,000 figure for cash from operating activities for Genesis; see Exhibits 12.7 and 12.11.

Decision Insight

Cash or Income The difference between net income and operating cash flows can be large and sometimes reflects on the quality of earnings. This bar chart shows net income and operating cash flows of three companies. Operating cash flows can be either higher or lower than net income.



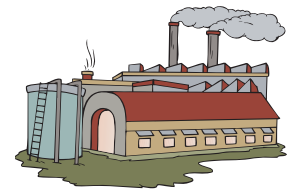
Quick Check

Answers—p. 454

- Determine net cash provided or used by operating activities using the following data: net income, \$74,900; decrease in accounts receivable, \$4,600; increase in inventory, \$11,700; decrease in accounts payable, \$1,000; loss on sale of equipment, \$3,400; payment of cash dividends, \$21,500.
- Why are expenses such as depreciation and amortization added to net income when cash flow from operating activities is computed by the indirect method?
- A company reports net income of \$15,000 that includes a \$3,000 gain on the sale of plant assets. Why is this gain subtracted from net income in computing cash flow from operating activities using the indirect method?

Cash Flows from Investing

The third major step in preparing the statement of cash flows is to compute and report cash flows from investing activities. We normally do this by identifying changes in (1) all noncurrent asset accounts and (2) the current accounts for both notes receivable and investments in securities (excluding trading securities). We then analyze changes in these accounts to determine their effect, if any, on cash and report the cash flow effects in the investing activities section of the statement of cash flows. **Reporting of investing activities is identical under the direct method and indirect method.**



Three-Stage Process of Analysis

Information to compute cash flows from investing activities is usually taken from beginning and ending balance sheets and the income statement. We use a three-stage process to determine cash provided or used by investing activities: (1) identify changes in investing-related accounts, (2) explain these changes using reconstruction analysis, and (3) report their cash flow effects.



Video 12.1

Analysis of Noncurrent Assets

Information about the Genesis transactions provided earlier reveals that the company both purchased and sold plant assets during the period. Both transactions are investing activities and are analyzed for their cash flow effects in this section.

Plant Asset Transactions The first stage in analyzing the Plant Assets account and its related Accumulated Depreciation is to identify any changes in these accounts from comparative balance sheets in Exhibit 12.10. This analysis reveals a \$40,000 increase in plant assets from \$210,000 to \$250,000 and a \$12,000 increase in accumulated depreciation from \$48,000 to \$60,000.

The second stage is to explain these changes. Items *b* and *c* of the additional information for Genesis (page 431) are relevant in this case. Recall that the Plant Assets account is affected by both asset purchases and sales, while its Accumulated Depreciation account is normally increased from depreciation and decreased from the removal of accumulated depreciation in asset sales. To explain changes in these accounts and to identify their cash flow effects, we prepare *reconstructed entries* from prior transactions; *they are not the actual entries by the preparer*.

To illustrate, item *b* reports that Genesis purchased plant assets of \$70,000 by issuing \$60,000 in notes payable to the seller and paying \$10,000 in cash. The reconstructed entry for analysis of item *b* follows:

Reconstruction	Plant Assets	70,000	
	Notes Payable		60,000
	Cash		10,000

This entry reveals a \$10,000 cash outflow for plant assets and a \$60,000 noncash investing and financing transaction involving notes exchanged for plant assets.

Next, item *c* reports that Genesis sold plant assets costing \$30,000 (with \$12,000 of accumulated depreciation) for \$12,000 cash, resulting in a \$6,000 loss. The reconstructed entry for analysis of item *c* follows:

Reconstruction	Cash	12,000	
	Accumulated Depreciation	12,000	
	Loss on Sale of Plant Assets	6,000	
	Plant Assets		30,000

P3 Determine cash flows from both investing and financing activities.

Point: Investing activities include (1) purchasing and selling long-term assets, (2) lending and collecting on notes receivable, and (3) purchasing and selling short-term investments other than cash equivalents and trading securities.

Point: Financing and investing info is available in ledger accounts to help explain changes in comparative balance sheets. Post references lead to relevant entries and explanations.

This entry reveals a \$12,000 cash inflow from assets sold. The \$6,000 loss is computed by comparing the asset book value to the cash received and does not reflect any cash inflow or outflow. We also reconstruct the entry for Depreciation Expense using information from the income statement.

Reconstruction	Depreciation Expense	24,000	
	Accumulated Depreciation		24,000

This entry shows that Depreciation Expense results in no cash flow effect. These three reconstructed entries are reflected in the following plant asset and related T-accounts.

Plant Assets				Accumulated Depreciation—Plant Assets			
Bal., Dec. 31, 2008	210,000				Bal., Dec. 31, 2008	48,000	
Purchase	70,000	Sale	30,000	Sale	12,000	Depr. expense	24,000
Bal., Dec. 31, 2009	250,000				Bal., Dec. 31, 2009	60,000	

Example: If a plant asset costing \$40,000 with \$37,000 of accumulated depreciation is sold at a \$1,000 loss, what is the cash flow? What is the cash flow if this asset is sold at a gain of \$3,000? Answers: +\$2,000; +\$6,000.

This reconstruction analysis is complete in that the change in plant assets from \$210,000 to \$250,000 is fully explained by the \$70,000 purchase and the \$30,000 sale. Also, the change in accumulated depreciation from \$48,000 to \$60,000 is fully explained by depreciation expense of \$24,000 and the removal of \$12,000 in accumulated depreciation from an asset sale. (Preparers of the statement of cash flows have the entire ledger and additional information at their disposal, but for brevity reasons only the information needed for reconstructing accounts is given.)

The third stage looks at the reconstructed entries for identification of cash flows. The two identified cash flow effects are reported in the investing section of the statement as follows (also see Exhibit 12.7 or 12.11):

Cash flows from investing activities	
Cash received from sale of plant assets	\$12,000
Cash paid for purchase of plant assets	(10,000)

The \$60,000 portion of the purchase described in item *b* and financed by issuing notes is a noncash investing and financing activity. It is reported in a note or in a separate schedule to the statement as follows:

Noncash investing and financing activity	
Purchased plant assets with issuance of notes	\$60,000

Analysis of Other Assets

Many other asset transactions (including those involving current notes receivable and investments in certain securities) are considered investing activities and can affect a company's cash flows. Since Genesis did not enter into other investing activities impacting assets, we do not need to extend our analysis to these other assets. If such transactions did exist, we would analyze them using the same three-stage process illustrated for plant assets.

Quick Check	Answer—p. 454
<p>7. Equipment costing \$80,000 with accumulated depreciation of \$30,000 is sold at a loss of \$10,000. What is the cash receipt from this sale? In what section of the statement of cash flows is this transaction reported?</p>	

Cash Flows from Financing

The fourth major step in preparing the statement of cash flows is to compute and report cash flows from financing activities. We normally do this by identifying changes in all noncurrent liability accounts (including the current portion of any notes and bonds) and the equity accounts. These accounts include long-term debt, notes payable, bonds payable, common stock, and retained earnings. Changes in these accounts are then analyzed using available information to determine their effect, if any, on cash. Results are reported in the financing activities section of the statement. **Reporting of financing activities is identical under the direct method and indirect method.**



Three-Stage Process of Analysis

We again use a three-stage process to determine cash provided or used by financing activities: (1) identify changes in financing-related accounts, (2) explain these changes using reconstruction analysis, and (3) report their cash flow effects.



Video 12.1

Analysis of Noncurrent Liabilities

Information about Genesis provided earlier reveals two transactions involving noncurrent liabilities. We analyzed one of those, the \$60,000 issuance of notes payable to purchase plant assets. This transaction is reported as a significant noncash investing and financing activity in a footnote or a separate schedule to the statement of cash flows. The other remaining transaction involving noncurrent liabilities is the cash retirement of notes payable.

Point: Financing activities generally refer to changes in the noncurrent liability and the equity accounts. Examples are (1) receiving cash from issuing debt or repaying amounts borrowed and (2) receiving cash from or distributing cash to owners.

Notes Payable Transactions The first stage in analysis of notes is to review the comparative balance sheets from Exhibit 12.10. This analysis reveals an increase in notes payable from \$64,000 to \$90,000.

The second stage explains this change. Item *e* of the additional information for Genesis (page 431) reports that notes with a carrying value of \$34,000 are retired for \$18,000 cash, resulting in a \$16,000 gain. The reconstructed entry for analysis of item *e* follows:

Reconstruction	Notes Payable	34,000	
	Gain on retirement of debt		16,000
	Cash		18,000

This entry reveals an \$18,000 cash outflow for retirement of notes and a \$16,000 gain from comparing the notes payable carrying value to the cash received. This gain does not reflect any cash inflow or outflow. Also, item *b* of the additional information reports that Genesis purchased plant assets costing \$70,000 by issuing \$60,000 in notes payable to the seller and paying \$10,000 in cash. We reconstructed this entry when analyzing investing activities: It showed a \$60,000 increase to notes payable that is reported as a noncash investing and financing transaction. The Notes Payable account reflects (and is fully explained by) these reconstructed entries as follows:

Notes Payable			
		Bal., Dec. 31, 2008	64,000
Retired notes	34,000	Issued notes	60,000
		Bal., Dec. 31, 2009	90,000

The third stage is to report the cash flow effect of the notes retirement in the financing section of the statement as follows (also see Exhibit 12.7 or 12.11):

Cash flows from financing activities	
Cash paid to retire notes	\$(18,000)

Analysis of Equity

The Genesis information reveals two transactions involving equity accounts. The first is the issuance of common stock for cash. The second is the declaration and payment of cash dividends. We analyze both.

Common Stock Transactions The first stage in analyzing common stock is to review the comparative balance sheets from Exhibit 12.10, which reveals an increase in common stock from \$80,000 to \$95,000.

The second stage explains this change. Item *d* of the additional information (page 431) reports that 3,000 shares of common stock are issued at par for \$5 per share. The reconstructed entry for analysis of item *d* follows:

Reconstruction	Cash	15,000	
	Common Stock		15,000

This entry reveals a \$15,000 cash inflow from stock issuance and is reflected in (and explains) the Common Stock account as follows:

Common Stock		
	Bal., Dec. 31, 2008	80,000
	Issued stock	15,000
<hr/>		
	Bal., Dec. 31, 2009	95,000

The third stage discloses the cash flow effect from stock issuance in the financing section of the statement as follows (also see Exhibit 12.7 or 12.11):

Cash flows from financing activities	
Cash received from issuing stock	\$15,000

Retained Earnings Transactions The first stage in analyzing the Retained Earnings account is to review the comparative balance sheets from Exhibit 12.10. This reveals an increase in retained earnings from \$88,000 to \$112,000.

The second stage explains this change. Item *f* of the additional information (page 431) reports that cash dividends of \$14,000 are paid. The reconstructed entry follows:

Reconstruction	Retained Earnings	14,000	
	Cash		14,000

This entry reveals a \$14,000 cash outflow for cash dividends. Also see that the Retained Earnings account is impacted by net income of \$38,000. (Net income was analyzed under the operating section of the statement of cash flows.) The reconstructed Retained Earnings account follows:

Retained Earnings		
	Bal., Dec. 31, 2008	88,000
Cash dividend	14,000	Net income
		38,000
<hr/>		
	Bal., Dec. 31, 2009	112,000

The third stage reports the cash flow effect from the cash dividend in the financing section of the statement as follows (also see Exhibit 12.7 or 12.11):

Cash flows from financing activities	
Cash paid for dividends	\$(14,000)

We now have identified and explained all of the Genesis cash inflows and cash outflows and one noncash investing and financing transaction. Specifically, our analysis has reconciled changes in all noncash balance sheet accounts.

Point: Financing activities not affecting cash flow include *declaration of a cash dividend, declaration of a stock dividend, payment of a stock dividend, and a stock split.*

Global: There are no requirements to separate domestic and international cash flows, leading some users to ask “Where in the world is cash flow?”

Proving Cash Balances

The fifth and final step in preparing the statement is to report the beginning and ending cash balances and prove that the *net change in cash* is explained by operating, investing, and financing cash flows. This step is shown here for Genesis.

Net cash provided by operating activities	\$ 20,000
Net cash provided by investing activities	2,000
Net cash used in financing activities	(17,000)
Net increase in cash	\$ 5,000
Cash balance at 2008 year-end	12,000
Cash balance at 2009 year-end	<u>\$ 17,000</u>

The preceding table shows that the \$5,000 net increase in cash, from \$12,000 at the beginning of the period to \$17,000 at the end, is reconciled by net cash flows from operating (\$20,000 inflow), investing (\$2,000 inflow), and financing (\$17,000 outflow) activities. This is formally reported at the bottom of the statement of cash flows as shown in both Exhibits 12.7 and 12.11.

Decision Maker

Reporter Management is in labor contract negotiations and grants you an interview. It highlights a recent \$600,000 net loss that involves a \$930,000 extraordinary loss and a total net cash outflow of \$550,000 (which includes net cash outflows of \$850,000 for investing activities and \$350,000 for financing activities). What is your assessment of this company? [Answer—p. 454]



Cash Flow Analysis

Decision Analysis

Analyzing Cash Sources and Uses

Most managers stress the importance of understanding and predicting cash flows for business decisions. Creditors evaluate a company's ability to generate cash before deciding whether to lend money. Investors also assess cash inflows and outflows before buying and selling stock. Information in the statement of cash flows helps address these and other questions such as (1) How much cash is generated from or used in operations? (2) What expenditures are made with cash from operations? (3) What is the source of cash for debt payments? (4) What is the source of cash for distributions to owners? (5) How is the increase in investing activities financed? (6) What is the source of cash for new plant assets? (7) Why is cash flow from operations different from income? (8) How is cash from financing used?

To effectively answer these questions, it is important to separately analyze investing, financing, and operating activities. To illustrate, consider data from three different companies in Exhibit 12.13. These companies operate in the same industry and have been in business for several years.

(\$ thousands)	BMX	ATV	Trex
Cash provided (used) by operating activities	\$90,000	\$40,000	\$(24,000)
Cash provided (used) by investing activities			
Proceeds from sale of plant assets			26,000
Purchase of plant assets	(48,000)	(25,000)	
Cash provided (used) by financing activities			
Proceeds from issuance of debt			13,000
Repayment of debt	(27,000)		
Net increase (decrease) in cash	<u>\$15,000</u>	<u>\$15,000</u>	<u>\$ 15,000</u>

A1 Analyze the statement of cash flows.

EXHIBIT 12.13

Cash Flows of Competing Companies

Each company generates an identical \$15,000 net increase in cash, but its sources and uses of cash flows are very different. BMX's operating activities provide net cash flows of \$90,000, allowing it to purchase plant assets of \$48,000 and repay \$27,000 of its debt. ATV's operating activities provide \$40,000 of cash flows, limiting its purchase of plant assets to \$25,000. Trex's \$15,000 net cash increase is due to selling plant assets and incurring additional debt. Its operating activities yield a net cash outflow of \$24,000.

Overall, analysis of these cash flows reveals that BMX is more capable of generating future cash flows than is ATV or Trex.

Decision Insight

Free Cash Flows Many investors use cash flows to value company stock. However, cash-based valuation models often yield different stock values due to differences in measurement of cash flows. Most models require cash flows that are “free” for distribution to shareholders. These *free cash flows* are defined as cash flows available to shareholders after operating asset reinvestments and debt payments. Knowledge of the statement of cash flows is key to proper computation of free cash flows. A company’s growth and financial flexibility depend on adequate free cash flows.

Cash Flow on Total Assets

Cash flow information has limitations, but it can help measure a company’s ability to meet its obligations, pay dividends, expand operations, and obtain financing. Users often compute and analyze a cash-based ratio similar to return on total assets except that its numerator is net cash flows from operating activities. The **cash flow on total assets** ratio is in Exhibit 12.14.

A2 Compute and apply the cash flow on total assets ratio.

EXHIBIT 12.14

Cash Flow on Total Assets

$$\text{Cash flow on total assets} = \frac{\text{Cash flow from operations}}{\text{Average total assets}}$$

This ratio reflects actual cash flows and is not affected by accounting income recognition and measurement. It can help business decision makers estimate the amount and timing of cash flows when planning and analyzing operating activities.

To illustrate, the 2007 cash flow on total assets ratio for **Nike** is 18.3%—see Exhibit 12.15. Is an 18.3% ratio good or bad? To answer this question, we compare this ratio with the ratios of prior years (we could also compare its ratio with those of its competitors and the market). Nike’s cash flow on total assets ratio for several prior years is in the second column of Exhibit 12.15. Results show that its 18.3% return is the median of the prior years’ returns.

EXHIBIT 12.15

Nike’s Cash Flow on Total Assets

Year	Cash Flow on Total Assets	Return on Total Assets
2007	18.3%	14.5%
2006	17.9	14.9
2005	18.8	14.5
2004	20.6	12.8
2003	13.9	7.1

As an indicator of *earnings quality*, some analysts compare the cash flow on total assets ratio to the return on total assets ratio. Nike’s return on total assets is provided in the third column of Exhibit 12.15. Nike’s cash flow on total assets ratio exceeds its return on total assets in each of the five years, leading some analysts to infer that Nike’s earnings quality is high for that period because more earnings are realized in the form of cash.

Decision Insight

Cash Flow Ratios Analysts use various other cash-based ratios, including the following two:

$$(1) \quad \text{Cash coverage of growth} = \frac{\text{Operating cash flow}}{\text{Cash outflow for plant assets}}$$

where a low ratio (less than 1) implies cash inadequacy to meet asset growth, whereas a high ratio implies cash adequacy for asset growth.

$$(2) \quad \text{Operating cash flow to sales} = \frac{\text{Operating cash flow}}{\text{Net sales}}$$

when this ratio substantially and consistently differs from the operating income to net sales ratio, the risk of accounting improprieties increases.

Point: The following ratio helps assess whether operating cash flow is adequate to meet long-term obligations:

Cash coverage of debt = Cash flow from operations ÷ Noncurrent liabilities. A low ratio suggests a higher risk of insolvency; a high ratio suggests a greater ability to meet long-term obligations.

Demonstration Problem

Umlauf's comparative balance sheets, income statement, and additional information follow.

UMLAUF COMPANY		
Balance Sheets		
December 31, 2009 and 2008		
	2009	2008
Assets		
Cash	\$ 43,050	\$ 23,925
Accounts receivable	34,125	39,825
Merchandise inventory	156,000	146,475
Prepaid expenses	3,600	1,650
Equipment	135,825	146,700
Accum. depreciation—Equipment	(61,950)	(47,550)
Total assets	<u>\$310,650</u>	<u>\$311,025</u>
Liabilities and Equity		
Accounts payable	\$ 28,800	\$ 33,750
Income taxes payable	5,100	4,425
Dividends payable	0	4,500
Bonds payable	0	37,500
Common stock, \$10 par	168,750	168,750
Retained earnings	108,000	62,100
Total liabilities and equity	<u>\$310,650</u>	<u>\$311,025</u>

UMLAUF COMPANY		
Income Statement		
For Year Ended December 31, 2009		
Sales		\$446,100
Cost of goods sold	\$222,300	
Other operating expenses	120,300	
Depreciation expense	25,500	(368,100)
		78,000
Other gains (losses)		
Loss on sale of equipment	3,300	
Loss on retirement of bonds ..	825	(4,125)
Income before taxes		73,875
Income taxes expense		(13,725)
Net income		<u>\$ 60,150</u>

Additional Information

- Equipment costing \$21,375 with accumulated depreciation of \$11,100 is sold for cash.
- Equipment purchases are for cash.
- Accumulated Depreciation is affected by depreciation expense and the sale of equipment.
- The balance of Retained Earnings is affected by dividend declarations and net income.
- All sales are made on credit.
- All merchandise inventory purchases are on credit.
- Accounts Payable balances result from merchandise inventory purchases.
- Prepaid expenses relate to "other operating expenses."

Required

- Prepare a statement of cash flows using the indirect method for year 2009.
- ^B Prepare a statement of cash flows using the direct method for year 2009.

Planning the Solution

- Prepare two blank statements of cash flows with sections for operating, investing, and financing activities using the (1) indirect method format and (2) direct method format.
- Compute the cash paid for equipment and the cash received from the sale of equipment using the additional information provided along with the amount for depreciation expense and the change in the balances of equipment and accumulated depreciation. Use T-accounts to help chart the effects of the sale and purchase of equipment on the balances of the Equipment account and the Accumulated Depreciation account.
- Compute the effect of net income on the change in the Retained Earnings account balance. Assign the difference between the change in retained earnings and the amount of net income to dividends declared. Adjust the dividends declared amount for the change in the Dividends Payable balance.
- Compute cash received from customers, cash paid for merchandise, cash paid for other operating expenses, and cash paid for taxes as illustrated in the chapter.
- Enter the cash effects of reconstruction entries to the appropriate section(s) of the statement.
- Total each section of the statement, determine the total net change in cash, and add it to the beginning balance to get the ending balance of cash.

Solution to Demonstration Problem

Supporting computations for cash receipts and cash payments.

(1) *Cost of equipment sold	\$ 21,375
Accumulated depreciation of equipment sold	(11,100)
Book value of equipment sold	10,275
Loss on sale of equipment	(3,300)
Cash received from sale of equipment	\$ 6,975
Cost of equipment sold	\$ 21,375
Less decrease in the equipment account balance	(10,875)
Cash paid for new equipment	\$ 10,500
(2) Loss on retirement of bonds	\$ 825
Carrying value of bonds retired	37,500
Cash paid to retire bonds	\$ 38,325
(3) Net income	\$ 60,150
Less increase in retained earnings	45,900
Dividends declared	14,250
Plus decrease in dividends payable	4,500
Cash paid for dividends	\$ 18,750
(4) ^B Sales	\$ 446,100
Add decrease in accounts receivable	5,700
Cash received from customers	\$451,800
(5) ^B Cost of goods sold	\$ 222,300
Plus increase in merchandise inventory	9,525
Purchases	231,825
Plus decrease in accounts payable	4,950
Cash paid for merchandise	\$236,775
(6) ^B Other operating expenses	\$ 120,300
Plus increase in prepaid expenses	1,950
Cash paid for other operating expenses	\$122,250
(7) ^B Income taxes expense	\$ 13,725
Less increase in income taxes payable	(675)
Cash paid for income taxes	\$ 13,050

* Supporting T-account analysis for part 1 follows:

Equipment				Accumulated Depreciation—Equipment			
Bal., Dec. 31, 2008	146,700				Bal., Dec. 31, 2008	47,550	
Cash purchase	10,500	Sale	21,375	Sale	11,100	Depr. expense	25,500
Bal., Dec. 31, 2009	135,825				Bal., Dec. 31, 2009	61,950	

UMLAUF COMPANY		
Statement of Cash Flows (Indirect Method)		
For Year Ended December 31, 2009		
Cash flows from operating activities		
Net income	\$60,150	
Adjustments to reconcile net income to net cash provided by operating activities		
Decrease in accounts receivable	5,700	
Increase in merchandise inventory	(9,525)	
Increase in prepaid expenses	(1,950)	
Decrease in accounts payable	(4,950)	
Increase in income taxes payable	675	
Depreciation expense	25,500	
Loss on sale of plant assets	3,300	
Loss on retirement of bonds	825	
Net cash provided by operating activities		\$79,725

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Cash flows from investing activities		
Cash received from sale of equipment	6,975	
Cash paid for equipment	<u>(10,500)</u>	
Net cash used in investing activities		(3,525)
Cash flows from financing activities		
Cash paid to retire bonds payable	(38,325)	
Cash paid for dividends	<u>(18,750)</u>	
Net cash used in financing activities		<u>(57,075)</u>
Net increase in cash		\$19,125
Cash balance at prior year-end		<u>23,925</u>
Cash balance at current year-end		<u><u>\$43,050</u></u>

UMLAUF COMPANY
Statement of Cash Flows (Direct Method)
For Year Ended December 31, 2009

Cash flows from operating activities		
Cash received from customers	\$451,800	
Cash paid for merchandise	(236,775)	
Cash paid for other operating expenses	(122,250)	
Cash paid for income taxes	<u>(13,050)</u>	
Net cash provided by operating activities		\$79,725
Cash flows from investing activities		
Cash received from sale of equipment	6,975	
Cash paid for equipment	<u>(10,500)</u>	
Net cash used in investing activities		(3,525)
Cash flows from financing activities		
Cash paid to retire bonds payable	(38,325)	
Cash paid for dividends	<u>(18,750)</u>	
Net cash used in financing activities		<u>(57,075)</u>
Net increase in cash		\$19,125
Cash balance at prior year-end		<u>23,925</u>
Cash balance at current year-end		<u><u>\$43,050</u></u>

APPENDIX

Spreadsheet Preparation of the Statement of Cash Flows

12A

This appendix explains how to use a spreadsheet to prepare the statement of cash flows under the indirect method.

Preparing the Indirect Method Spreadsheet

Analyzing noncash accounts can be challenging when a company has a large number of accounts and many operating, investing, and financing transactions. A *spreadsheet*, also called *work sheet* or *working paper*, can help us organize the information needed to prepare a statement of cash flows. A spreadsheet also makes it easier to check the accuracy of our work. To illustrate, we return to the comparative balance sheets and income statement shown in Exhibit 12.10. We use the following identifying letters *a* through *g* to code

P4 Illustrate use of a spreadsheet to prepare a statement of cash flows.

changes in accounts, and letters *h* through *m* for additional information, to prepare the statement of cash flows:

- a. Net income is \$38,000.
- b. Accounts receivable increase by \$20,000.
- c. Merchandise inventory increases by \$14,000.
- d. Prepaid expenses increase by \$2,000.
- e. Accounts payable decrease by \$5,000.
- f. Interest payable decreases by \$1,000.
- g. Income taxes payable increase by \$10,000.
- h. Depreciation expense is \$24,000.
- i. Plant assets costing \$30,000 with accumulated depreciation of \$12,000 are sold for \$12,000 cash. This yields a loss on sale of assets of \$6,000.
- j. Notes with a book value of \$34,000 are retired with a cash payment of \$18,000, yielding a \$16,000 gain on retirement.
- k. Plant assets costing \$70,000 are purchased with a cash payment of \$10,000 and an issuance of notes payable for \$60,000.
- l. Issued 3,000 shares of common stock for \$15,000 cash.
- m. Paid cash dividends of \$14,000.

Exhibit 12A.1 shows the indirect method spreadsheet for Genesis. We enter both beginning and ending balance sheet amounts on the spreadsheet. We also enter information in the Analysis of Changes columns (keyed to the additional information items *a* through *m*) to explain changes in the accounts and determine the cash flows for operating, investing, and financing activities. Information about noncash investing and financing activities is reported near the bottom.

Entering the Analysis of Changes on the Spreadsheet

The following sequence of procedures is used to complete the spreadsheet after the beginning and ending balances of the balance sheet accounts are entered:

- ① Enter net income as the first item in the Statement of Cash Flows section for computing operating cash inflow (debit) and as a credit to Retained Earnings.
- ② In the Statement of Cash Flows section, adjustments to net income are entered as debits if they increase cash flows and as credits if they decrease cash flows. Applying this same rule, adjust net income for the change in each noncash current asset and current liability account related to operating activities. For each adjustment to net income, the offsetting debit or credit must help reconcile the beginning and ending balances of a current asset or current liability account.
- ③ Enter adjustments to net income for income statement items not providing or using cash in the period. For each adjustment, the offsetting debit or credit must help reconcile a noncash balance sheet account.
- ④ Adjust net income to eliminate any gains or losses from investing and financing activities. Because the cash from a gain must be excluded from operating activities, the gain is entered as a credit in the operating activities section. Losses are entered as debits. For each adjustment, the related debit and/or credit must help reconcile balance sheet accounts and involve reconstructed entries to show the cash flow from investing or financing activities.
- ⑤ After reviewing any unreconciled balance sheet accounts and related information, enter the remaining reconciling entries for investing and financing activities. Examples are purchases of plant assets, issuances of long-term debt, stock issuances, and dividend payments. Some of these may require entries in the noncash investing and financing section of the spreadsheet (reconciled).
- ⑥ Check accuracy by totaling the Analysis of Changes columns and by determining that the change in each balance sheet account has been explained (reconciled).

Point: Analysis of the changes on the spreadsheet are summarized as:

1. Cash flows from operating activities generally affect net income, current assets, and current liabilities.
2. Cash flows from investing activities generally affect noncurrent asset accounts.
3. Cash flows from financing activities generally affect noncurrent liability and equity accounts.

We illustrate these steps in Exhibit 12A.1 for Genesis:

Step	Entries
①	(a)
②	(b) through (g)
③	(h)
④	(i) through (j)
⑤	(k) through (m)

EXHIBIT 12A.1

Spreadsheet for Preparing
Statement of Cash Flows—
Indirect Method

GENESIS						
Spreadsheet for Statement of Cash Flows—Indirect Method						
For Year Ended December 31, 2009						
	Dec. 31,	Analysis of Changes			Dec. 31,	
	2008	Debit		Credit	2009	
Balance Sheet—Debits						
Cash	\$ 12,000				\$ 17,000	
Accounts receivable	40,000	(b)	\$ 20,000		60,000	
Merchandise inventory	70,000	(c)	14,000		84,000	
Prepaid expenses	4,000	(d)	2,000		6,000	
Plant assets	210,000	(k1)	70,000	(i)	\$ 30,000	
	<u>\$336,000</u>				<u>\$417,000</u>	
Balance Sheet—Credits						
Accumulated depreciation	\$ 48,000	(j)	12,000	(h)	24,000	
Accounts payable	40,000	(e)	5,000		35,000	
Interest payable	4,000	(f)	1,000		3,000	
Income taxes payable	12,000			(g)	10,000	
Notes payable	64,000	(j)	34,000	(k2)	60,000	
Common stock, \$5 par value	80,000			(l)	15,000	
Retained earnings	88,000	(m)	14,000	(a)	38,000	
	<u>\$336,000</u>				<u>\$417,000</u>	
Statement of Cash Flows						
Operating activities						
Net income		(a)	38,000			
Increase in accounts receivable				(b)	20,000	
Increase in merchandise inventory				(c)	14,000	
Increase in prepaid expenses				(d)	2,000	
Decrease in accounts payable				(e)	5,000	
Decrease in interest payable				(f)	1,000	
Increase in income taxes payable		(g)	10,000			
Depreciation expense		(h)	24,000			
Loss on sale of plant assets		(i)	6,000			
Gain on retirement of notes				(j)	16,000	
Investing activities						
Receipts from sale of plant assets		(i)	12,000			
Payment for purchase of plant assets				(k1)	10,000	
Financing activities						
Payment to retire notes				(j)	18,000	
Receipts from issuing stock		(l)	15,000			
Payment of cash dividends				(m)	14,000	
Noncash Investing and Financing Activities						
Purchase of plant assets with notes		(k2)	60,000	(k1)	60,000	
			<u>\$337,000</u>		<u>\$337,000</u>	

Since adjustments *i*, *j*, and *k* are more challenging, we show them in the following debit and credit format. These entries are for purposes of our understanding; they are *not* the entries actually made in the journals. Changes in the Cash account are identified as sources or uses of cash.

<i>i.</i>	Loss from sale of plant assets	6,000	
	Accumulated depreciation	12,000	
	Receipt from sale of plant assets (source of cash)	12,000	
	Plant assets		30,000
	<i>To describe sale of plant assets.</i>		

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j.	Notes payable.	34,000	
	Payments to retire notes (use of cash)		18,000
	Gain on retirement of notes.		16,000
	<i>To describe retirement of notes.</i>		
k1.	Plant assets.	70,000	
	Payment to purchase plant assets (use of cash)		10,000
	Purchase of plant assets financed by notes.		60,000
	<i>To describe purchase of plant assets.</i>		
k2.	Purchase of plant assets financed by notes	60,000	
	Notes payable		60,000
	<i>To issue notes for purchase of assets.</i>		

APPENDIX

12B

Direct Method of Reporting Operating Cash Flows

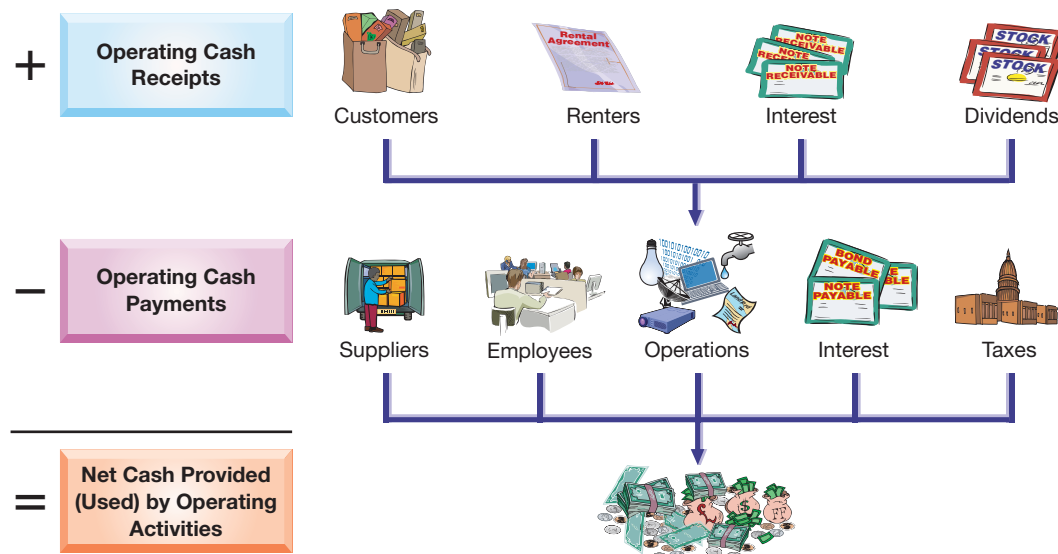
P5 Compute cash flows from operating activities using the direct method.

We compute cash flows from operating activities under the direct method by adjusting accrual-based income statement items to the cash basis. The usual approach is to adjust income statement accounts related to operating activities for changes in their related balance sheet accounts as follows:

$$\begin{matrix} \text{Revenue} \\ \text{or} \\ \text{Expense} \end{matrix} + \text{ or } - \begin{matrix} \text{Adjustments for} \\ \text{Changes in Related} \\ \text{Balance Sheet Accounts} \end{matrix} = \begin{matrix} \text{Cash Receipts} \\ \text{or} \\ \text{Cash Payments} \end{matrix}$$

The framework for reporting cash receipts and cash payments for the operating section of the cash flow statement under the direct method is as in Exhibit 12B.1. We consider cash receipts first and then cash payments.

EXHIBIT 12B.1
Major Classes of Operating Cash Flows



Operating Cash Receipts

A review of Exhibit 12.10 and the additional information reported by Genesis suggests only one potential cash receipt: sales to customers. This section, therefore, starts with sales to customers as reported on the income statement and then adjusts it as necessary to obtain cash received from customers to report on the statement of cash flows.

Cash Received from Customers If all sales are for cash, the amount received from customers equals the sales reported on the income statement. When some or all sales are on account, however, we must adjust the amount of sales for the change in Accounts Receivable. It is often helpful to use *account analysis* to do this. This usually involves setting up a T-account and reconstructing its major entries, with emphasis on cash receipts and payments. To illustrate, we use a T-account that includes accounts receivable balances for Genesis on December 31, 2008 and 2009. The beginning balance is \$40,000 and the ending balance is \$60,000. Next, the income statement shows sales of \$590,000, which we enter on the debit side of this account. We now can reconstruct the Accounts Receivable account to determine the amount of cash received from customers as follows:

Accounts Receivable		
Bal., Dec. 31, 2008	40,000	
Sales	590,000	Cash receipts = 570,000
Bal., Dec. 31, 2009	60,000	

This T-account shows that the Accounts Receivable balance begins at \$40,000 and increases to \$630,000 from sales of \$590,000, yet its ending balance is only \$60,000. This implies that cash receipts from customers are \$570,000, computed as \$40,000 + \$590,000 - [?] = \$60,000. This computation can be rearranged to express cash received as equal to sales of \$590,000 minus a \$20,000 increase in accounts receivable. This computation is summarized as a general rule in Exhibit 12B.2. The statement of cash flows in Exhibit 12.7 reports the \$570,000 cash received from customers as a cash inflow from operating activities.

$$\text{Cash received from customers} = \text{Sales} \begin{cases} + \text{ Decrease in accounts receivable} \\ \text{or} \\ - \text{ Increase in accounts receivable} \end{cases}$$

Other Cash Receipts While Genesis's cash receipts are limited to collections from customers, we often see other types of cash receipts, most commonly cash receipts involving rent, interest, and dividends. We compute cash received from these items by subtracting an increase in their respective receivable or adding a decrease. For instance, if rent receivable increases in the period, cash received from renters is less than rent revenue reported on the income statement. If rent receivable decreases, cash received is more than reported rent revenue. The same logic applies to interest and dividends. The formulas for these computations are summarized later in this appendix.

Operating Cash Payments

A review of Exhibit 12.10 and the additional Genesis information shows four operating expenses: cost of goods sold; wages and other operating expenses; interest expense; and taxes expense. We analyze each expense to compute its cash amounts for the statement of cash flows. (We then examine depreciation and the other losses and gains.)

Cash Paid for Merchandise We compute cash paid for merchandise by analyzing both cost of goods sold and merchandise inventory. If all merchandise purchases are for cash and the ending balance of Merchandise Inventory is unchanged from the beginning balance, the amount of cash paid for merchandise equals cost of goods sold—an uncommon situation. Instead, there normally is some change in the Merchandise Inventory balance. Also, some or all merchandise purchases are often made on credit, and this yields changes in the Accounts Payable balance. When the balances of both Merchandise Inventory and Accounts Payable change, we must adjust the cost of goods sold for changes in both accounts to compute cash paid for merchandise. This is a two-step adjustment.

Point: An accounts receivable increase implies cash received from customers is less than sales (the converse is also true).

Example: If the ending balance of accounts receivable is \$20,000 (instead of \$60,000), what is cash received from customers? Answer: \$610,000

EXHIBIT 12B.2

Formula to Compute Cash Received from Customers—Direct Method

Point: Net income is measured using accrual accounting. Cash flows from operations are measured using cash basis accounting.

First, we use the change in the account balance of Merchandise Inventory, along with the cost of goods sold amount, to compute cost of purchases for the period. An increase in merchandise inventory implies that we bought more than we sold, and we add this inventory increase to cost of goods sold to compute cost of purchases. A decrease in merchandise inventory implies that we bought less than we sold, and we subtract the inventory decrease from cost of goods sold to compute purchases. We illustrate the *first step* by reconstructing the Merchandise Inventory account of Genesis:

Merchandise Inventory			
Bal., Dec. 31, 2008	70,000		
Purchases =	314,000	Cost of goods sold	300,000
Bal., Dec. 31, 2009	84,000		

The beginning balance is \$70,000, and the ending balance is \$84,000. The income statement shows that cost of goods sold is \$300,000, which we enter on the credit side of this account. With this information, we determine the amount for cost of purchases to be \$314,000. This computation can be rearranged to express cost of purchases as equal to cost of goods sold of \$300,000 plus the \$14,000 increase in inventory.

The second step uses the change in the balance of Accounts Payable, and the amount of cost of purchases, to compute cash paid for merchandise. A decrease in accounts payable implies that we paid for more goods than we acquired this period, and we would then add the accounts payable decrease to cost of purchases to compute cash paid for merchandise. An increase in accounts payable implies that we paid for less than the amount of goods acquired, and we would subtract the accounts payable increase from purchases to compute cash paid for merchandise. The *second step* is applied to Genesis by reconstructing its Accounts Payable account:

Accounts Payable			
		Bal., Dec. 31, 2008	40,000
Cash payments =	319,000	Purchases	314,000
		Bal., Dec. 31, 2009	35,000

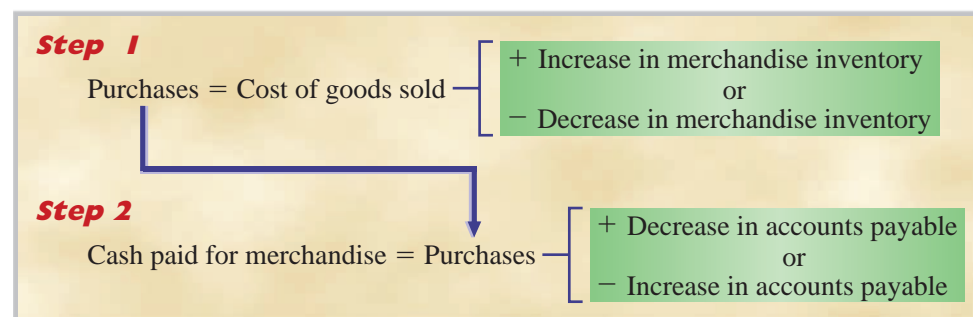
Example: If the ending balances of Inventory and Accounts Payable are \$60,000 and \$50,000, respectively (instead of \$84,000 and \$35,000), what is cash paid for merchandise? Answer: \$280,000

Its beginning balance of \$40,000 plus purchases of \$314,000 minus an ending balance of \$35,000 yields cash paid of \$319,000 (or $\$40,000 + \$314,000 - [?] = \$35,000$). Alternatively, we can express cash paid for merchandise as equal to purchases of \$314,000 plus the \$5,000 decrease in accounts payable. The \$319,000 cash paid for merchandise is reported on the statement of cash flows in Exhibit 12.7 as a cash outflow under operating activities.

We summarize this two-step adjustment to cost of goods sold to compute cash paid for merchandise inventory in Exhibit 12B.3.

EXHIBIT 12B.3

Two Steps to Compute Cash Paid for Merchandise—Direct Method



Cash Paid for Wages and Operating Expenses (excluding depreciation)

The income statement of Genesis shows wages and other operating expenses of \$216,000 (see Exhibit 12.10). To compute cash paid for wages and other operating expenses, we adjust this amount for any changes in their related balance sheet accounts. We begin by looking for any prepaid expenses and accrued liabilities related to wages and other operating expenses in the balance sheets of Genesis in

Exhibit 12.10. The balance sheets show prepaid expenses but no accrued liabilities. Thus, the adjustment is limited to the change in prepaid expenses. The amount of adjustment is computed by assuming that all cash paid for wages and other operating expenses is initially debited to Prepaid Expenses. This assumption allows us to reconstruct the Prepaid Expenses account:

Prepaid Expenses		
Bal., Dec. 31, 2008	4,000	
Cash payments =	218,000	Wages and other operating exp. 216,000
Bal., Dec. 31, 2009	6,000	

Prepaid Expenses increase by \$2,000 in the period, meaning that cash paid for wages and other operating expenses exceeds the reported expense by \$2,000. Alternatively, we can express cash paid for wages and other operating expenses as equal to its reported expenses of \$216,000 plus the \$2,000 increase in prepaid expenses.¹

Exhibit 12B.4 summarizes the adjustments to wages (including salaries) and other operating expenses. The Genesis balance sheet did not report accrued liabilities, but we include them in the formula to explain the adjustment to cash when they do exist. A decrease in accrued liabilities implies that we paid cash for more goods or services than received this period, so we add the decrease in accrued liabilities to the expense amount to obtain cash paid for these goods or services. An increase in accrued liabilities implies that we paid cash for less than what was acquired, so we subtract this increase in accrued liabilities from the expense amount to get cash paid.

Point: A decrease in prepaid expenses implies that reported expenses include an amount(s) that did not require a cash outflow in the period.

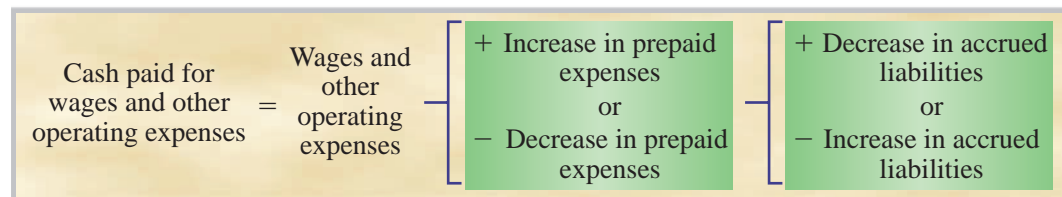


EXHIBIT 12B.4

Formula to Compute Cash Paid for Wages and Operating Expenses—Direct Method

Cash Paid for Interest and Income Taxes Computing operating cash flows for interest and taxes is similar to that for operating expenses. Both require adjustments to their amounts reported on the income statement for changes in their related balance sheet accounts. We begin with the Genesis income statement showing interest expense of \$7,000 and income taxes expense of \$15,000. To compute the cash paid, we adjust interest expense for the change in interest payable and then the income taxes expense for the change in income taxes payable. These computations involve reconstructing both liability accounts:

Interest Payable		
	Bal., Dec. 31, 2008	4,000
Cash paid for interest = 8,000	Interest expense	7,000
	Bal., Dec. 31, 2009	3,000

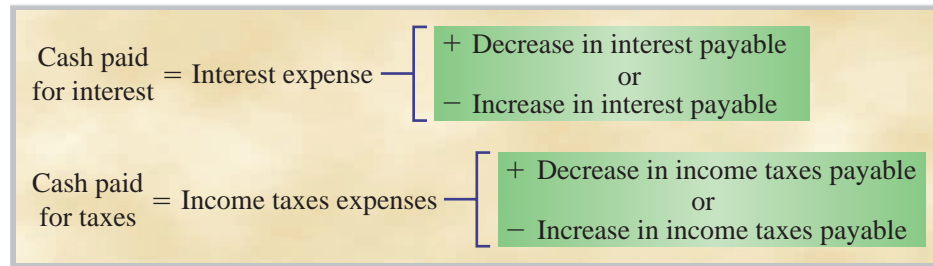
Income Taxes Payable		
	Bal., Dec. 31, 2008	12,000
Cash paid for taxes = 5,000	Income taxes expense	15,000
	Bal., Dec. 31, 2009	22,000

These accounts reveal cash paid for interest of \$8,000 and cash paid for income taxes of \$5,000. The formulas to compute these amounts are in Exhibit 12B.5. Both of these cash payments are reported as operating cash outflows on the statement of cash flows in Exhibit 12.7.

¹ The assumption that all cash payments for wages and operating expenses are initially debited to Prepaid Expenses is not necessary for our analysis to hold. If cash payments are debited directly to the expense account, the total amount of cash paid for wages and other operating expenses still equals the \$216,000 expense plus the \$2,000 increase in Prepaid Expenses (which arise from end-of-period adjusting entries).

EXHIBIT 12B.5

Formulas to Compute Cash Paid for Both Interest and Taxes—Direct Method



Analysis of Additional Expenses, Gains, and Losses Genesis has three additional items reported on its income statement: depreciation, loss on sale of assets, and gain on retirement of debt. We must consider each for its potential cash effects.

Depreciation Expense Depreciation expense is \$24,000. It is often called a *noncash expense* because depreciation has no cash flows. Depreciation expense is an allocation of an asset’s depreciable cost. The cash outflow with a plant asset is reported as part of investing activities when it is paid for. Thus, depreciation expense is *never* reported on a statement of cash flows using the direct method, nor is depletion or amortization expense.

Loss on Sale of Assets Sales of assets frequently result in gains and losses reported as part of net income, but the amount of recorded gain or loss does *not* reflect any cash flows in these transactions. Asset sales result in cash inflow equal to the cash amount received, regardless of whether the asset was sold at a gain or a loss. This cash inflow is reported under investing activities. Thus, the loss or gain on a sale of assets is *never* reported on a statement of cash flows using the direct method.

Gain on Retirement of Debt Retirement of debt usually yields a gain or loss reported as part of net income, but that gain or loss does *not* reflect cash flow in this transaction. Debt retirement results in cash outflow equal to the cash paid to settle the debt, regardless of whether the debt is retired at a gain or loss. This cash outflow is reported under financing activities; the loss or gain from retirement of debt is *never* reported on a statement of cash flows using the direct method.

Point: The direct method is usually viewed as *user friendly* because less accounting knowledge is required to understand and use it.

Summary of Adjustments for Direct Method

Exhibit 12B.6 summarizes common adjustments for net income to yield net cash provided (used) by operating activities under the direct method.

EXHIBIT 12B.6

Summary of Selected Adjustments for Direct Method

Item	From Income Statement	Adjustments to Obtain Cash Flow Numbers
Receipts		
From sales	Sales Revenue	+ Decrease in Accounts Receivable - Increase in Accounts Receivable
From rent	Rent Revenue	+ Decrease in Rent Receivable - Increase in Rent Receivable
From interest	Interest Revenue	+ Decrease in Interest Receivable - Increase in Interest Receivable
From dividends	Dividend Revenue	+ Decrease in Dividends Receivable - Increase in Dividends Receivable
Payments		
To suppliers	Cost of Goods Sold	+ Increase in Inventory - Decrease in Inventory + Decrease in Accounts Payable - Increase in Accounts Payable
For operations	Operating Expense	+ Increase in Prepaids - Decrease in Prepaids + Decrease in Accrued Liabilities - Increase in Accrued Liabilities
To employees	Wages (Salaries) Expense	+ Decrease in Wages (Salaries) Payable - Increase in Wages (Salaries) Payable
For interest	Interest Expense	+ Decrease in Interest Payable - Increase in Interest Payable
For taxes	Income Tax Expense	+ Decrease in Income Tax Payable - Increase in Income Tax Payable

Direct Method Format of Operating Activities Section

Exhibit 12.7 shows the Genesis statement of cash flows using the direct method. Major items of cash inflows and cash outflows are listed separately in the operating activities section. The format requires that operating cash outflows be subtracted from operating cash inflows to get net cash provided (used) by operating activities. The FASB recommends that the operating activities section of the statement of cash flows be reported using the direct method, which is considered more useful to financial statement users. *However, the FASB requires a reconciliation of net income to net cash provided (used) by operating activities when the direct method is used* (which can be reported in the notes). This reconciliation is similar to preparation of the operating activities section of the statement of cash flows using the indirect method.

Point: Some preparers argue that it is easier to prepare a statement of cash flows using the indirect method. This likely explains its greater frequency in financial statements.

Decision Insight

IFRSs Like U.S. GAAP, IFRSs allow cash flows from operating activities to be reported using either the indirect method or the direct method.

Quick Check

Answers—p. 454

8. Net sales in a period are \$590,000, beginning accounts receivable are \$120,000, and ending accounts receivable are \$90,000. What cash amount is collected from customers in the period?
9. The Merchandise Inventory account balance decreases in the period from a beginning balance of \$32,000 to an ending balance of \$28,000. Cost of goods sold for the period is \$168,000. If the Accounts Payable balance increases \$2,400 in the period, what is the cash amount paid for merchandise inventory?
10. This period's wages and other operating expenses total \$112,000. Beginning-of-period prepaid expenses totaled \$1,200, and its ending balance is \$4,200. There were no beginning-of-period accrued liabilities, but end-of-period wages payable equal \$5,600. How much cash is paid for wages and other operating expenses?

Summary

C1 Explain the purpose and importance of cash flow information. The main purpose of the statement of cash flows is to report the major cash receipts and cash payments for a period. This includes identifying cash flows as relating to either operating, investing, or financing activities. Most business decisions involve evaluating activities that provide or use cash.

C2 Distinguish between operating, investing, and financing activities. Operating activities include transactions and events that determine net income. Investing activities include transactions and events that mainly affect long-term assets. Financing activities include transactions and events that mainly affect long-term liabilities and equity.

C3 Identify and disclose noncash investing and financing activities. Noncash investing and financing activities must be disclosed either in a note or a separate schedule to the statement of cash flows. Examples are the retirement of debt by issuing equity and the exchange of a note payable for plant assets.

C4 Describe the format of the statement of cash flows. The statement of cash flows separates cash receipts and cash payments into operating, investing, or financing activities.

A1 Analyze the statement of cash flows. To understand and predict cash flows, users stress identification of the sources and uses of cash flows by operating, investing, and financing activities. Emphasis is on operating cash flows since they derive from continuing operations.

A2 Compute and apply the cash flow on total assets ratio. The cash flow on total assets ratio is defined as operating cash flows divided by average total assets. Analysis of current and past values for this ratio can reflect a company's ability to yield regular and positive cash flows. It is also viewed as a measure of earnings quality.

P1 Prepare a statement of cash flows. Preparation of a statement of cash flows involves five steps: (1) Compute the net increase or decrease in cash; (2) compute net cash provided or used by operating activities (*using either the direct or indirect method*); (3) compute net cash provided or used by investing activities; (4) compute net cash provided or used by financing activities; and (5) report the beginning and ending cash balance and prove that it is explained by net cash flows. Noncash investing and financing activities are also disclosed.

P2 Compute cash flows from operating activities using the indirect method. The indirect method for reporting net cash provided or used by operating activities starts with net income and then adjusts it for three items: (1) changes in noncash current assets and current liabilities related to operating activities, (2) revenues and expenses not providing or using cash, and (3) gains and losses from investing and financing activities.

P3 Determine cash flows from both investing and financing activities. Cash flows from both investing and financing activities are determined by identifying the cash flow effects of transactions and events affecting each balance sheet account related to these activities. All cash flows from these activities are identified

when we can explain changes in these accounts from the beginning to the end of the period.

P4^A Illustrate use of a spreadsheet to prepare a statement of cash flows. A spreadsheet is a useful tool in preparing a statement of cash flows. Six key steps (see appendix) are applied when using the spreadsheet to prepare the statement.

P5^B Compute cash flows from operating activities using the direct method. The direct method for reporting net cash provided or used by operating activities lists major operating cash inflows less cash outflows to yield net cash inflow or outflow from operations.

Guidance Answers to **Decision Maker**



Entrepreneur Several factors might explain an increase in net cash flows when a net loss is reported, including (1) early recognition of expenses relative to revenues generated (such as research and development), (2) cash advances on long-term sales contracts not yet recognized in income, (3) issuances of debt or equity for cash to finance expansion, (4) cash sale of assets, (5) delay of cash payments, and (6) cash prepayment on sales. Analysis needs to focus on the components of both the net loss and the net cash flows and their implications for future performance.

Reporter Your initial reaction based on the company's \$600,000 loss with a \$550,000 decrease in net cash flows is not positive. However, closer scrutiny reveals a more positive picture of this company's performance. Cash flow from operating activities is \$650,000, computed as $[\?] - \$850,000 - \$350,000 = \$(550,000)$. You also note that net income *before* the extraordinary loss is \$330,000, computed as $[\?] - \$930,000 = \$(600,000)$.

Guidance Answers to **Quick Checks**

1. No to both. The statement of cash flows reports changes in the sum of cash plus cash equivalents. It does not report transfers between cash and cash equivalents.
2. The three categories of cash inflows and outflows are operating activities, investing activities, and financing activities.
3. a. Investing c. Financing e. Operating
b. Operating d. Operating f. Financing
4. $\$74,900 + \$4,600 - \$11,700 - \$1,000 + \$3,400 = \$70,200$
5. Expenses such as depreciation and amortization do not require current cash outflows. Therefore, adding these expenses back to net income eliminates these noncash items from the net income number, converting it to a cash basis.
6. A gain on the sale of plant assets is subtracted from net income because a sale of plant assets is not an operating activity; it is an investing activity for the amount of cash received from its sale. Also, such a gain yields no cash effects.
7. $\$80,000 - \$30,000 - \$10,000 = \$40,000$ cash receipt. The \$40,000 cash receipt is reported as an investing activity.
8. $\$590,000 + (\$120,000 - \$90,000) = \$620,000$
9. $\$168,000 - (\$32,000 - \$28,000) - \$2,400 = \$161,600$
10. $\$112,000 + (\$4,200 - \$1,200) - \$5,600 = \$109,400$



Key Terms

mhhe.com/wildMA2e

Key Terms are available at the book's Website for learning and testing in an online Flashcard Format.

Cash flow on total assets (p. 442)

Indirect method (p. 430)

Operating activities (p. 425)

Direct method (p. 430)

Investing activities (p. 426)

Statement of cash flows (p. 424)

Financing activities (p. 426)



Multiple Choice Quiz

Answers on p. 473

mhhe.com/wildMA2e

Additional Quiz Questions are available at the book's Website.



1. A company uses the indirect method to determine its cash flows from operating activities. Use the following information to determine its net cash provided or used by operating activities.

Net income	\$15,200
Depreciation expense	10,000
Cash payment on note payable	8,000
Gain on sale of land	3,000
Increase in inventory	1,500
Increase in accounts payable	2,850

Quiz12

- a. \$23,550 used by operating activities
 - b. \$23,550 provided by operating activities
 - c. \$15,550 provided by operating activities
 - d. \$42,400 provided by operating activities
 - e. \$20,850 provided by operating activities
2. A machine with a cost of \$175,000 and accumulated depreciation of \$94,000 is sold for \$87,000 cash. The amount reported as a source of cash under cash flows from investing activities is:
 - a. \$81,000.
 - b. \$6,000.
 - c. \$87,000.
 - d. Zero; this is a financing activity.
 - e. Zero; this is an operating activity.
 3. A company settles a long-term note payable plus interest by paying \$68,000 cash toward the principal amount and \$5,440 cash for interest. The amount reported as a use of cash under cash flows from financing activities is:
 - a. Zero; this is an investing activity.
 - b. Zero; this is an operating activity.
 - c. \$73,440.
 - d. \$68,000.
 - e. \$5,440.
 4. The following information is available regarding a company's annual salaries and wages. What amount of cash is paid for salaries and wages?

Salaries and wages expense	\$255,000
Salaries and wages payable, prior year-end	8,200
Salaries and wages payable, current year-end	10,900













- a. \$252,300
 - b. \$257,700
 - c. \$255,000
 - d. \$274,100
 - e. \$235,900
5. The following information is available for a company. What amount of cash is paid for merchandise for the current year?

Cost of goods sold	\$545,000
Merchandise inventory, prior year-end	105,000
Merchandise inventory, current year-end	112,000
Accounts payable, prior year-end	98,500
Accounts payable, current year-end	101,300

- a. \$545,000
- b. \$554,800
- c. \$540,800
- d. \$535,200
- e. \$549,200


Superscript letter ^{A(B)} denotes assignments based on Appendix 12A (12B).

Discussion Questions

1. What is the reporting purpose of the statement of cash flows? Identify at least two questions that this statement can answer.
2. Describe the direct method of reporting cash flows from operating activities.
3. When a statement of cash flows is prepared using the direct method, what are some of the operating cash flows?
4. Describe the indirect method of reporting cash flows from operating activities.
5. What are some investing activities reported on the statement of cash flows?
6. What are some financing activities reported on the statement of cash flows?
7. Where on the statement of cash flows is the payment of cash dividends reported?
8.  Assume that a company purchases land for \$100,000, paying \$20,000 cash and borrowing the remainder with a long-term note payable. How should this transaction be reported on a statement of cash flows?
9.  On June 3, a company borrows \$50,000 cash by giving its bank a 160-day, interest-bearing note. On the statement of cash flows, where should this be reported?
10.  If a company reports positive net income for the year, can it also show a net cash outflow from operating activities? Explain.
11.  Is depreciation a source of cash flow?
12.  Refer to **Best Buy**'s statement of cash flows in Appendix A. (a) Which method is used to compute its net cash provided by operating activities?  (b) While its balance sheet shows an increase in receivables from fiscal years 2006 to 2007, why is this increase in receivables subtracted when computing net cash provided by operating activities for the year ended March 3, 2007?
13.  Refer to **Circuit City**'s statement of cash flows in Appendix A. What are its cash flows from financing activities for the year ended February 28, 2007? List items and amounts. 
14.  Refer to **RadioShack**'s statement of cash flows in Appendix A. List its  cash flows from operating activities, investing activities, and financing activities.
15.  Refer to **Apple**'s statement of cash flows in Appendix A. What investing activities result in cash outflows for the year ended September 30, 2006? List items and amounts. 



Denotes Discussion Questions that involve decision making.


Most materials in this section are available in McGraw-Hill's Connect 

QUICK STUDY

The statement of cash flows is one of the four primary financial statements.

QS 12-1

Statement of cash flows

C1 C2 C3 

1. Describe the content and layout of a statement of cash flows, including its three sections.
2. List at least three transactions classified as investing activities in a statement of cash flows.
3. List at least three transactions classified as financing activities in a statement of cash flows.
4. List at least three transactions classified as significant noncash financing and investing activities in the statement of cash flows.

QS 12-2

Transaction classification by activity

C2 

Classify the following cash flows as operating, investing, or financing activities.

1. Sold long-term investments for cash.
2. Received cash payments from customers.
3. Paid cash for wages and salaries.
4. Purchased inventories for cash.
5. Paid cash dividends.
6. Issued common stock for cash.
7. Received cash interest on a note.
8. Paid cash interest on outstanding notes.
9. Received cash from sale of land at a loss.
10. Paid cash for property taxes on building.

QS 12-3

Computing cash from operations (indirect)

P2

Use the following information to determine this company's cash flows from operating activities using the indirect method.

LOLLAND COMPANY Selected Balance Sheet Information December 31, 2009 and 2008		
	2009	2008
Current assets		
Cash	\$169,300	\$ 53,600
Accounts receivable	50,000	64,000
Inventory	120,000	108,200
Current liabilities		
Accounts payable	60,800	51,400
Income taxes payable	4,100	4,400

LOLLAND COMPANY Income Statement For Year Ended December 31, 2009	
Sales	\$1,030,000
Cost of goods sold	663,200
Gross profit	366,800
Operating expenses	
Depreciation expense	\$ 72,000
Other expenses	243,000
	<u>315,000</u>
Income before taxes	51,800
Income taxes expense	15,400
Net income	<u>\$ 36,400</u>

QS 12-4

Computing cash from asset sales

P3

The following selected information is from Manning Company's comparative balance sheets.

At December 31	2009	2008
Furniture	\$ 264,000	\$ 369,000
Accumulated depreciation—Furniture	(174,400)	(221,400)

The income statement reports depreciation expense for the year of \$36,000. Also, furniture costing \$105,000 was sold for its book value. Compute the cash received from the sale of furniture.

QS 12-5

Computing financing cash flows

P3

The following selected information is from the Tanner Company's comparative balance sheets.

At December 31	2009	2008
Common stock, \$10 par value	\$ 210,000	\$200,000
Paid-in capital in excess of par	1,134,000	684,000
Retained earnings	627,000	575,000


The company's net income for the year ended December 31, 2009, was \$96,000.

1. Compute the cash received from the sale of its common stock during 2009.
2. Compute the cash paid for dividends during 2009.

Use the following balance sheets and income statement to answer QS 12-6 through QS 12-11.

Use the indirect method to prepare the cash provided or used from operating activities section only of the statement of cash flows for this company.

QS 12-6

Computing cash from operations (indirect) P2 


AMMONS, INC. Comparative Balance Sheets December 31, 2009		
	<u>2009</u>	<u>2008</u>
Assets		
Cash	\$189,600	\$ 48,000
Accounts receivable, net	82,000	102,000
Inventory	171,600	191,600
Prepaid expenses	10,800	8,400
Furniture	218,000	238,000
Accum. depreciation—Furniture	(34,000)	(18,000)
Total assets	<u>\$638,000</u>	<u>\$570,000</u>
Liabilities and Equity		
Accounts payable	\$ 30,000	\$ 42,000
Wages payable	18,000	10,000
Income taxes payable	2,800	5,200
Notes payable (long-term)	58,000	138,000
Common stock, \$5 par value	458,000	358,000
Retained earnings	71,200	16,800
Total liabilities and equity	<u>\$638,000</u>	<u>\$570,000</u>

AMMONS, INC. Income Statement For Year Ended December 31, 2009		
Sales		\$976,000
Cost of goods sold		<u>628,000</u>
Gross profit		348,000
Operating expenses		
Depreciation expense	\$ 75,200	
Other expenses	<u>178,200</u>	<u>253,400</u>
Income before taxes		94,600
Income taxes expense		<u>34,600</u>
Net income		<u>\$ 60,000</u>

Refer to the data in QS 12-6.

Furniture costing \$110,000 is sold at its book value in 2009. Acquisitions of furniture total \$90,000 cash, on which no depreciation is necessary because it is acquired at year-end. What is the cash inflow related to the sale of furniture?


QS 12-7

Computing cash from asset sales P3 

Refer to the data in QS 12-6.

1. Assume that all common stock is issued for cash. What amount of cash dividends is paid during 2009?
2. Assume that no additional notes payable are issued in 2009. What cash amount is paid to reduce the notes payable balance in 2009?

QS 12-8

Computing financing cash outflows P3 

Refer to the data in QS 12-6.

1. How much cash is received from sales to customers for year 2009?
2. What is the net increase or decrease in cash for year 2009?

QS 12-9^B

Computing cash received from customers P5

Refer to the data in QS 12-6.

1. How much cash is paid to acquire merchandise inventory during year 2009?
2. How much cash is paid for operating expenses during year 2009?


QS 12-10^B

Computing operating cash outflows P5

Refer to the data in QS 12-6.

Use the direct method to prepare the cash provided or used from operating activities section only of the statement of cash flows for this company.


QS 12-11^B

Computing cash from operations (direct) P5 

Financial data from three competitors in the same industry follow.

1. Which of the three competitors is in the strongest position as shown by its statement of cash flows?
2. Analyze and discuss the strength of Peña's cash flow on total assets ratio to that of Garcia.

QS 12-12

Analyses of sources and uses of cash A1 A2 

	Peña	Garcia	Piniella
(\$ thousands)			
Cash provided (used) by operating activities	\$ 140,000	\$ 120,000	\$ (48,000)
Cash provided (used) by investing activities			
Proceeds from sale of operating assets			52,000
Purchase of operating assets	(56,000)	(68,000)	
Cash provided (used) by financing activities			
Proceeds from issuance of debt			46,000
Repayment of debt	(12,000)		
Net increase (decrease) in cash	\$ 72,000	\$ 52,000	\$ 50,000
Average total assets	\$ 1,580,000	\$ 1,250,000	\$ 600,000

QS 12-13^A

Noncash accounts on a spreadsheet P4

When a spreadsheet for a statement of cash flows is prepared, all changes in noncash balance sheet accounts are fully explained on the spreadsheet. Explain how these noncash balance sheet accounts are used to fully account for cash flows on a spreadsheet.

QS 12-14

Computing cash flows from operations (indirect) P2

For each of the following separate cases, compute cash flows from operations. The list includes all balance sheet accounts related to operating activities.

	Case A	Case B	Case C
Net income	\$ 8,000	\$200,000	\$144,000
Depreciation expense	60,000	16,000	48,000
Accounts receivable increase (decrease)	80,000	40,000	(8,000)
Inventory increase (decrease)	(40,000)	(20,000)	21,000
Accounts payable increase (decrease)	48,000	(44,000)	28,000
Accrued liabilities increase (decrease)	(88,000)	24,000	(16,000)

QS 12-15

Computing cash flows from investing P3

Compute cash flows from investing activities using the following company information.


Sale of short-term investments	\$12,000
Cash collections from customers	32,000
Purchase of used equipment	10,000
Depreciation expense	4,000

QS 12-16

Computing cash flows from financing P3

Compute cash flows from financing activities using the following company information.

Additional short-term borrowings	\$40,000
Purchase of short-term investments	10,000
Cash dividends paid	32,000
Interest paid	16,000

Most materials in this section are available in McGraw-Hill's Connect 

EXERCISES

Exercise 12-1

Cash flow from operations (indirect) P2

Helman Company reports net income of \$530,000 for the year ended December 31, 2009. It also reports \$95,400 depreciation expense and a \$4,000 gain on the sale of machinery. Its comparative balance sheets reveal a \$42,400 increase in accounts receivable, \$21,730 increase in accounts payable, \$11,660 decrease in prepaid expenses, and \$16,430 decrease in wages payable.

Required

Prepare only the operating activities section of the statement of cash flows for 2009 using the *indirect method*.

The following transactions and events occurred during the year. Assuming that this company uses the *indirect method* to report cash provided by operating activities, indicate where each item would appear on its statement of cash flows by placing an *x* in the appropriate column.

Exercise 12-2
Cash flow classification
(indirect) C2 C3 P2



	Statement of Cash Flows			Noncash Investing and Financing Activities	Not Reported on Statement or in Notes
	Operating Activities	Investing Activities	Financing Activities		
a. Paid cash to purchase inventory.	_____	_____	_____	_____	_____
b. Purchased land by issuing common stock.	_____	_____	_____	_____	_____
c. Accounts receivable decreased in the year.	_____	_____	_____	_____	_____
d. Sold equipment for cash, yielding a loss.	_____	_____	_____	_____	_____
e. Recorded depreciation expense.	_____	_____	_____	_____	_____
f. Income taxes payable increased in the year.	_____	_____	_____	_____	_____
g. Declared and paid a cash dividend.	_____	_____	_____	_____	_____
h. Accounts payable decreased in the year	_____	_____	_____	_____	_____
i. Paid cash to settle notes payable	_____	_____	_____	_____	_____
j. Prepaid expenses increased in the year	_____	_____	_____	_____	_____

The following transactions and events occurred during the year. Assuming that this company uses the *direct method* to report cash provided by operating activities, indicate where each item would appear on the statement of cash flows by placing an *x* in the appropriate column.

Exercise 12-3^B
Cash flow classification
(direct) C2 C3 P5



	Statement of Cash Flows			Noncash Investing and Financing Activities	Not Reported on Statement or in Notes
	Operating Activities	Investing Activities	Financing Activities		
a. Retired long-term notes payable by issuing common stock	_____	_____	_____	_____	_____
b. Recorded depreciation expense.	_____	_____	_____	_____	_____
c. Paid cash dividend that was declared in a prior period.	_____	_____	_____	_____	_____
d. Sold inventory for cash.	_____	_____	_____	_____	_____
e. Borrowed cash from bank by signing a 9-month note payable.	_____	_____	_____	_____	_____
f. Paid cash to purchase a patent.	_____	_____	_____	_____	_____
g. Accepted six-month note receivable in exchange for plant assets.	_____	_____	_____	_____	_____
h. Paid cash toward accounts payable.	_____	_____	_____	_____	_____
i. Collected cash from sales.	_____	_____	_____	_____	_____
j. Paid cash to acquire treasury stock.	_____	_____	_____	_____	_____

Zander Company's calendar-year 2009 income statement shows the following: Net Income, \$395,000; Depreciation Expense, \$48,980; Amortization Expense, \$9,875; Gain on Sale of Plant Assets, \$4,900. An examination of the company's current assets and current liabilities reveals the following changes (all from operating activities): Accounts Receivable decrease, \$7,600; Merchandise Inventory decrease, \$22,040; Prepaid Expenses increase, \$2,000; Accounts Payable decrease, \$5,000; Other Payables increase, \$760. Use the *indirect method* to compute cash flow from operating activities.

Exercise 12-4
Cash flows from operating activities (indirect)
P2

Exercise 12-5^B

Computation of cash flows (direct)

P5

For each of the following three separate cases, use the information provided about the calendar-year 2010 operations of Kowa Company to compute the required cash flow information.

Case A: Compute cash received from customers:	
Sales	\$590,000
Accounts receivable, December 31, 2009	38,000
Accounts receivable, December 31, 2010	52,440
Case B: Compute cash paid for rent:	
Rent expense	\$117,400
Rent payable, December 31, 2009	6,700
Rent payable, December 31, 2010	5,561
Case C: Compute cash paid for merchandise:	
Cost of goods sold	\$651,000
Merchandise inventory, December 31, 2009	201,810
Accounts payable, December 31, 2009	84,760
Merchandise inventory, December 31, 2010	165,484
Accounts payable, December 31, 2010	105,102

Exercise 12-6

Cash flows from operating activities (indirect)

P2

Use the following income statement and information about changes in noncash current assets and current liabilities to prepare only the cash flows from operating activities section of the statement of cash flows using the *indirect* method.

SEYMOUR COMPANY Income Statement For Year Ended December 31, 2009	
Sales	\$2,175,000
Cost of goods sold	<u>1,065,750</u>
Gross profit	1,109,250
Operating expenses	
Salaries expense	\$297,975
Depreciation expense	52,200
Rent expense	58,725
Amortization expenses—Patents	6,525
Utilities expense	<u>23,925</u>
	439,350
	669,900
Gain on sale of equipment	<u>8,700</u>
Net income	<u>\$ 678,600</u>

Changes in current asset and current liability accounts for the year that relate to operations follow.

Accounts receivable	\$45,300 increase	Accounts payable	\$10,075 decrease
Merchandise inventory	35,150 increase	Salaries payable	4,750 decrease

Exercise 12-7^B

Cash flows from operating activities (direct)

P5

Refer to the information about Seymour Company in Exercise 12-6. Use the *direct method* to prepare only the cash provided or used by operating activities section of the statement of cash flows for this company.

Use the following information to determine this company's cash flows from investing activities.

- a. Equipment with a book value of \$72,500 and an original cost of \$158,000 was sold at a loss of \$22,000.
- b. Paid \$95,000 cash for a new truck.
- c. Sold land costing \$315,000 for \$400,000 cash, yielding a gain of \$15,000.
- d. Long-term investments in stock were sold for \$94,700 cash, yielding a gain of \$5,750.

Exercise 12-8

Cash flows from investing activities

P3

Use the following information to determine this company's cash flows from financing activities.

- a. Net income was \$53,000.
- b. Issued common stock for \$75,000 cash.
- c. Paid cash dividend of \$13,000.
- d. Paid \$90,000 cash to settle a note payable at its \$90,000 maturity value.
- e. Paid \$18,000 cash to acquire its treasury stock.
- f. Purchased equipment for \$67,000 cash.

Exercise 12-9

Cash flows from financing activities

P3

Use the following financial statements and additional information to (1) prepare a statement of cash flows for the year ended June 30, 2009, using the *indirect method*, and (2) compute the company's cash flow on total assets ratio for its fiscal year 2009.

Exercise 12-10

Preparation of statement of cash flows (indirect)

C2 A2 P1 P2 P3



BOULWARE INC. Comparative Balance Sheets June 30, 2009 and 2008		
	2009	2008
Assets		
Cash	\$ 84,663	\$ 49,494
Accounts receivable, net	65,720	56,952
Inventory	62,620	106,107
Prepaid expenses	4,960	5,763
Equipment	118,387	131,532
Accum. depreciation—Equipment	(26,350)	(10,848)
Total assets	<u>\$310,000</u>	<u>\$339,000</u>
Liabilities and Equity		
Accounts payable	\$ 24,490	\$ 35,256
Wages payable	6,510	17,628
Income taxes payable	2,170	4,068
Notes payable (long term)	31,953	76,953
Common stock, \$5 par value	208,000	158,000
Retained earnings	<u>36,877</u>	<u>47,095</u>
Total liabilities and equity	<u>\$310,000</u>	<u>\$339,000</u>

BOULWARE INC. Income Statement For Year Ended June 30, 2009	
Sales	\$976,600
Cost of goods sold	<u>625,024</u>
Gross profit	351,576
Operating expenses	
Depreciation expense	\$ 88,753
Other expenses	<u>101,879</u>
Total operating expenses	<u>190,632</u>
Other gains (losses)	
Gain on sale of equipment	<u>3,125</u>
Income before taxes	164,069
Income taxes expense	<u>56,604</u>
Net income	<u>\$107,465</u>

Additional Information

- a. A \$45,000 note payable is retired at its carrying (book) value in exchange for cash.
- b. The only changes affecting retained earnings are net income and cash dividends paid.
- c. New equipment is acquired for \$85,000 cash.
- d. Received cash for the sale of equipment that had cost \$98,145, yielding a \$3,125 gain.
- e. Prepaid Expenses and Wages Payable relate to Other Expenses on the income statement.
- f. All purchases and sales of merchandise inventory are on credit.

Refer to the data in Exercise 12-10.

Using the *direct method*, prepare the statement of cash flows for the year ended June 30, 2009.

Exercise 12-11^B

Preparation of statement of cash flows (direct) C2 P1 P3 P5

Exercise 12-12^B

Preparation of statement of cash flows (direct) and supporting note

C2 C3 C4 P1

Use the following information about the cash flows of Valencia Company to prepare a complete statement of cash flows (*direct method*) for the year ended December 31, 2009. Use a note disclosure for any noncash investing and financing activities.

Cash and cash equivalents balance, December 31, 2008	\$ 43,000
Cash and cash equivalents balance, December 31, 2009	120,916
Cash received as interest	4,300
Cash paid for salaries	124,700
Bonds payable retired by issuing common stock (no gain or loss on retirement)	180,000
Cash paid to retire long-term notes payable	215,000
Cash received from sale of equipment	105,350
Cash received in exchange for six-month note payable	43,000
Land purchased by issuing long-term note payable	104,400
Cash paid for store equipment	40,850
Cash dividends paid	25,800
Cash paid for other expenses	68,800
Cash received from customers	834,200
Cash paid for merchandise	433,784

Exercise 12-13^B

Preparation of statement of cash flows (direct) from Cash T-account

C2 A1 P1 P3 P5



The following summarized Cash T-account reflects the total debits and total credits to the Cash account of Clarett Corporation for calendar year 2009.

(1) Use this information to prepare a complete statement of cash flows for year 2009. The cash provided or used by operating activities should be reported using the *direct method*.

(2) Refer to the statement of cash flows prepared for part 1 to answer the following questions *a* through *d*: (a) Which section—operating, investing, or financing—shows the largest cash (i) inflow and (ii) outflow? (b) What is the largest individual item among the investing cash outflows? (c) Are the cash proceeds larger from issuing notes or issuing stock? (d) Does the company have a net cash inflow or outflow from borrowing activities?

Exercise 12-14

Reporting cash flows from operations (indirect)

C4 P2

Woodlock Company reports the following information for its recent calendar year.

Sales	\$80,000
Expenses	
Cost of goods sold	50,000
Salaries expense	12,000
Depreciation expense	6,000
Net income	<u>\$12,000</u>
Accounts receivable increase	\$ 5,000
Inventory decrease	8,000
Salaries payable increase	500

Required


Prepare the operating activities section of the statement of cash flows for Woodlock Company using the indirect method.

Portland Company disclosed the following information for its recent calendar year.

Revenues	\$200,000
Expenses	
Salaries expense	168,000
Utilities expense	28,000
Depreciation expense	29,200
Other expenses	<u>6,800</u>
Net loss	<u>\$ (32,000)</u>
Accounts receivable decrease	\$ 48,000
Purchased a machine	20,000
Salaries payable increase	36,000
Other accrued liabilities decrease	16,000

Exercise 12-15

Reporting and interpreting cash flows from operations (indirect)

C4 P2 

Required

1. Prepare the operating activities section of the statement of cash flows using the indirect method.
2. What were the major reasons that this company was able to report a net loss but positive cash flow from operations?
3. Of the potential causes of differences between cash flow from operations and net income, which are the most important to investors?

connect Most materials in this section are available in McGraw-Hill's Connect

Georgia Company, a merchandiser, recently completed its calendar-year 2009 operations. For the year, (1) all sales are credit sales, (2) all credits to Accounts Receivable reflect cash receipts from customers, (3) all purchases of inventory are on credit, (4) all debits to Accounts Payable reflect cash payments for inventory, and (5) Other Expenses are paid in advance and are initially debited to Prepaid Expenses. The company's balance sheets and income statement follow.

PROBLEM SET A

Problem 12-1A

Statement of cash flows (indirect method)

C2 C3 A1 P1 P2 P3

GEORGIA COMPANY Comparative Balance Sheets December 31, 2009 and 2008		
	2009	2008
Assets		
Cash	\$ 49,800	\$ 73,500
Accounts receivable	65,840	56,000
Merchandise inventory	277,000	252,000
Prepaid expenses	1,000	1,500
Equipment	158,500	107,500
Accum. depreciation—Equipment	<u>(43,000)</u>	<u>(52,000)</u>
Total assets	<u>\$509,140</u>	<u>\$438,500</u>
Liabilities and Equity		
Accounts payable	\$ 42,965	\$ 113,000
Short-term notes payable	10,000	7,000
Long-term notes payable	70,000	48,000
Common stock, \$5 par value	162,750	151,000
Paid-in capital in excess of par, common stock	35,250	0
Retained earnings	<u>188,175</u>	<u>119,500</u>
Total liabilities and equity	<u>\$509,140</u>	<u>\$438,500</u>

GEORGIA COMPANY Income Statement For Year Ended December 31, 2009		
Sales		\$584,500
Cost of goods sold		<u>281,000</u>
Gross profit		303,500
Operating expenses		
Depreciation expense	\$ 20,000	
Other expenses	<u>132,800</u>	152,800
Other gains (losses)		
Loss on sale of equipment		<u>5,875</u>
Income before taxes		144,825
Income taxes expense		<u>24,250</u>
Net income		<u>\$120,575</u>

Additional Information on Year 2009 Transactions

- a. The loss on the cash sale of equipment was \$5,875 (details in *b*).
- b. Sold equipment costing \$46,500, with accumulated depreciation of \$29,000, for \$11,625 cash.
- c. Purchased equipment costing \$97,500 by paying \$35,000 cash and signing a long-term note payable for the balance.
- d. Borrowed \$3,000 cash by signing a short-term note payable.
- e. Paid \$40,500 cash to reduce the long-term notes payable.
- f. Issued 2,350 shares of common stock for \$20 cash per share.
- g. Declared and paid cash dividends of \$51,900.

Required

1. Prepare a complete statement of cash flows; report its operating activities using the *indirect method*. Disclose any noncash investing and financing activities in a note.

Analysis Component

2. Analyze and discuss the statement of cash flows prepared in part 1, giving special attention to the wisdom of the cash dividend payment.

Check Cash from operating activities, \$42,075

Problem 12-2A^A

Cash flows spreadsheet (indirect method)

P1 P2 P3 P4

Refer to the information reported about Georgia Company in Problem 12-1A.

Required

Prepare a complete statement of cash flows using a spreadsheet as in Exhibit 12A.1; report its operating activities using the indirect method. Identify the debits and credits in the Analysis of Changes columns with letters that correspond to the following list of transactions and events.

- a. Net income was \$120,575.
- b. Accounts receivable increased.
- c. Merchandise inventory increased.
- d. Prepaid expenses decreased.
- e. Accounts payable decreased.
- f. Depreciation expense was \$20,000.
- g. Sold equipment costing \$46,500, with accumulated depreciation of \$29,000, for \$11,625 cash. This yielded a loss of \$5,875.
- h. Purchased equipment costing \$97,500 by paying \$35,000 cash and **(i.)** by signing a long-term note payable for the balance.
- j. Borrowed \$3,000 cash by signing a short-term note payable.
- k. Paid \$40,500 cash to reduce the long-term notes payable.
- l. Issued 2,350 shares of common stock for \$20 cash per share.
- m. Declared and paid cash dividends of \$51,900.

Check Analysis of Changes column totals, \$594,850

Problem 12-3A^B

Statement of cash flows (direct method) C3 P1 P3 P5

Check Cash used in financing activities, \$(42,400)

Refer to Georgia Company's financial statements and related information in Problem 12-1A.

Required

Prepare a complete statement of cash flows; report its operating activities according to the *direct method*. Disclose any noncash investing and financing activities in a note.

Problem 12-4A

Statement of cash flows (indirect method) C3 P1 P2 P3

Excel
mhhe.com/wildMA2e



Memphis Corp., a merchandiser, recently completed its 2009 operations. For the year, (1) all sales are credit sales, (2) all credits to Accounts Receivable reflect cash receipts from customers, (3) all purchases of inventory are on credit, (4) all debits to Accounts Payable reflect cash payments for inventory, (5) Other Expenses are all cash expenses, and (6) any change in Income Taxes Payable reflects the accrual and cash payment of taxes. The company's balance sheets and income statement follow.

MEMPHIS CORPORATION Comparative Balance Sheets December 31, 2009 and 2008		
	<u>2009</u>	<u>2008</u>
Assets		
Cash	\$ 165,000	\$137,000
Accounts receivable	82,000	74,000
Merchandise inventory	620,000	525,000
Equipment	345,000	240,000
Accum. depreciation—Equipment	(159,000)	(102,000)
Total assets	<u>\$1,053,000</u>	<u>\$874,000</u>
Liabilities and Equity		
Accounts payable	\$ 160,000	\$ 96,000
Income taxes payable	22,000	19,000
Common stock, \$2 par value	588,000	560,000
Paid-in capital in excess of par value, common stock	201,000	159,000
Retained earnings	<u>82,000</u>	<u>40,000</u>
Total liabilities and equity	<u>\$1,053,000</u>	<u>\$874,000</u>

MEMPHIS CORPORATION Income Statement For Year Ended December 31, 2009	
Sales	\$1,794,000
Cost of goods sold	<u>1,088,000</u>
Gross profit	706,000
Operating expenses	
Depreciation expense	\$ 57,000
Other expenses	<u>500,000</u>
Income before taxes	<u>557,000</u>
Income taxes expense	149,000
Net income	<u>22,000</u>
	<u>\$ 127,000</u>

Additional Information on Year 2009 Transactions

- a. Purchased equipment for \$105,000 cash.
- b. Issued 14,000 shares of common stock for \$5 cash per share.
- c. Declared and paid \$85,000 in cash dividends.

Required

Prepare a complete statement of cash flows; report its cash inflows and cash outflows from operating activities according to the *indirect method*.

Check Cash from operating activities, \$148,000

Refer to the information reported about Memphis Corporation in Problem 12-4A.

Required

Prepare a complete statement of cash flows using a spreadsheet as in Exhibit 12A.1; report operating activities under the indirect method. Identify the debits and credits in the Analysis of Changes columns with letters that correspond to the following list of transactions and events.

- a. Net income was \$127,000.
- b. Accounts receivable increased.
- c. Merchandise inventory increased.
- d. Accounts payable increased.
- e. Income taxes payable increased.
- f. Depreciation expense was \$57,000.
- g. Purchased equipment for \$105,000 cash.
- h. Issued 14,000 shares at \$5 cash per share.
- i. Declared and paid \$85,000 of cash dividends.

Problem 12-5A^A

Cash flows spreadsheet (indirect method)

P1 P2 P3 P4



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Check Analysis of Changes column totals, \$614,000

Refer to Memphis Corporation's financial statements and related information in Problem 12-4A.

Required

Prepare a complete statement of cash flows; report its cash flows from operating activities according to the *direct method*.

Problem 12-6A^B

Statement of cash flows (direct method) P1 P3 P5



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Check Cash used in financing activities, \$(15,000)

Problem 12-7A

Computing cash flows from operations (indirect)

C4 P2

Rawling Company's 2009 income statement and selected balance sheet data at December 31, 2008 and 2009, follow (\$ thousands).

RAWLING COMPANY Selected Balance Sheet Accounts		
At December 31	2009	2008
Accounts receivable	\$280	\$290
Inventory	99	77
Accounts payable	220	230
Salaries payable	44	35
Utilities payable	11	8
Prepaid insurance	13	14
Prepaid rent	11	9

RAWLING COMPANY Income Statement	
Sales revenue	\$48,600
Expenses	
Cost of goods sold	21,000
Depreciation expense	6,000
Salaries expense	9,000
Rent expense	4,500
Insurance expense	1,900
Interest expense	1,800
Utilities expense	1,400
Net income	<u>\$ 3,000</u>

Required

Prepare the cash flows from operating activities section only of the company's 2009 statement of cash flows using the indirect method.

Check Cash from operating activities, \$8,989

Problem 12-8A^B

Computing cash flows from operations (direct)

C4 P5

Refer to the information in Problem 12-7A.

Required

Prepare the cash flows from operating activities section only of the company's 2009 statement of cash flows using the direct method.

PROBLEM SET B

Problem 12-1B

Statement of cash flows (indirect method)

C2 C3 A1 P1 P2 P3

Wilson Corporation, a merchandiser, recently completed its calendar-year 2009 operations. For the year, (1) all sales are credit sales, (2) all credits to Accounts Receivable reflect cash receipts from customers, (3) all purchases of inventory are on credit, (4) all debits to Accounts Payable reflect cash payments for inventory, and (5) Other Expenses are paid in advance and are initially debited to Prepaid Expenses. The company's balance sheets and income statement follow.

WILSON CORPORATION Income Statement For Year Ended December 31, 2009	
Sales	\$585,000
Cost of goods sold	<u>285,000</u>
Gross profit	300,000
Operating expenses	
Depreciation expense	\$ 20,000
Other expenses	<u>134,000</u>
Total operating expenses	<u>154,000</u>
	146,000
Other gains (losses)	
Loss on sale of equipment	<u>5,625</u>
Income before taxes	140,375
Income taxes expense	<u>24,250</u>
Net income	<u>\$116,125</u>

WILSON CORPORATION Comparative Balance Sheets December 31, 2009 and 2008		
	2009	2008
Assets		
Cash	\$ 49,400	\$ 74,000
Accounts receivable	65,830	55,000
Merchandise inventory	277,000	252,000
Prepaid expenses	1,250	1,600
Equipment	158,500	107,500
Accum. depreciation—Equipment	<u>(36,625)</u>	<u>(46,000)</u>
Total assets	<u>\$515,355</u>	<u>\$444,100</u>
Liabilities and Equity		
Accounts payable	\$ 55,380	\$112,000
Short-term notes payable	9,000	7,000
Long-term notes payable	70,000	48,250
Common stock, \$5 par	162,500	150,750
Paid-in capital in excess of par, common stock	35,250	0
Retained earnings	<u>183,225</u>	<u>126,100</u>
Total liabilities and equity	<u>\$515,355</u>	<u>\$444,100</u>

Additional Information on Year 2009 Transactions

- a. The loss on the cash sale of equipment was \$5,625 (details in *b*).
- b. Sold equipment costing \$46,500, with accumulated depreciation of \$29,375, for \$11,500 cash.
- c. Purchased equipment costing \$97,500 by paying \$25,000 cash and signing a long-term note payable for the balance.
- d. Borrowed \$2,000 cash by signing a short-term note payable.
- e. Paid \$50,750 cash to reduce the long-term notes payable.
- f. Issued 2,350 shares of common stock for \$20 cash per share.
- g. Declared and paid cash dividends of \$59,000.

Required

- 1. Prepare a complete statement of cash flows; report its operating activities using the *indirect method*. Disclose any noncash investing and financing activities in a note.

Check Cash from operating activities, \$49,650

Analysis Component

- 2. Analyze and discuss the statement of cash flows prepared in part 1, giving special attention to the wisdom of the cash dividend payment.

Refer to the information reported about Wilson Corporation in Problem 12-1B.

Required

Prepare a complete statement of cash flows using a spreadsheet as in Exhibit 12A.1; report its operating activities using the *indirect method*. Identify the debits and credits in the Analysis of Changes columns with letters that correspond to the following list of transactions and events.

- a. Net income was \$116,125.
- b. Accounts receivable increased.
- c. Merchandise inventory increased.
- d. Prepaid expenses decreased.
- e. Accounts payable decreased.
- f. Depreciation expense was \$20,000.
- g. Sold equipment costing \$46,500, with accumulated depreciation of \$29,375, for \$11,500 cash. This yielded a loss of \$5,625.
- h. Purchased equipment costing \$97,500 by paying \$25,000 cash and **(i.)** by signing a long-term note payable for the balance.
- j. Borrowed \$2,000 cash by signing a short-term note payable.
- k. Paid \$50,750 cash to reduce the long-term notes payable.
- l. Issued 2,350 shares of common stock for \$20 cash per share.
- m. Declared and paid cash dividends of \$59,000.

Problem 12-2B^A

Cash flows spreadsheet
(indirect method)

P1 P2 P3 P4

Check Analysis of Changes column totals, \$604,175

Refer to Wilson Corporation's financial statements and related information in Problem 12-1B.

Required

Prepare a complete statement of cash flows; report its operating activities according to the *direct method*. Disclose any noncash investing and financing activities in a note.

Problem 12-3B^B

Statement of cash flows (direct method)

C3 P1 P3 P5

Check Cash used in financing activities, \$(60,750)

Problem 12-4B

Statement of cash flows
(indirect method)

C3 P1 P2 P3

Prius Company, a merchandiser, recently completed its 2009 operations. For the year, (1) all sales are credit sales, (2) all credits to Accounts Receivable reflect cash receipts from customers, (3) all purchases of inventory are on credit, (4) all debits to Accounts Payable reflect cash payments for inventory, (5) Other Expenses are cash expenses, and (6) any change in Income Taxes Payable reflects the accrual and cash payment of taxes. The company's balance sheets and income statement follow.

PRIUS COMPANY Income Statement For Year Ended December 31, 2009		
Sales		\$1,792,000
Cost of goods sold		<u>1,087,000</u>
Gross profit		705,000
Operating expenses		
Depreciation expense	\$ 55,000	
Other expenses	<u>494,000</u>	<u>549,000</u>
Income before taxes		156,000
Income taxes expense		<u>24,000</u>
Net income		<u>\$ 132,000</u>

PRIUS COMPANY Comparative Balance Sheets December 31, 2009 and 2008		
	2009	2008
Assets		
Cash	\$ 164,000	\$ 131,000
Accounts receivable	82,000	70,000
Merchandise inventory	605,000	515,000
Equipment	350,000	276,000
Accum. depreciation—Equipment	<u>(157,000)</u>	<u>(102,000)</u>
Total assets	<u>\$1,044,000</u>	<u>\$ 890,000</u>
Liabilities and Equity		
Accounts payable	\$ 173,000	\$ 119,000
Income taxes payable	20,000	17,000
Common stock, \$2 par value	580,000	560,000
Paid-in capital in excess of par, common stock	193,000	163,000
Retained earnings	<u>78,000</u>	<u>31,000</u>
Total liabilities and equity	<u>\$1,044,000</u>	<u>\$ 890,000</u>

Additional Information on Year 2009 Transactions

- a. Purchased equipment for \$74,000 cash.
- b. Issued 10,000 shares of common stock for \$5 cash per share.
- c. Declared and paid \$85,000 of cash dividends.

Required

Prepare a complete statement of cash flows; report its cash inflows and cash outflows from operating activities according to the *indirect method*.

Check Cash from operating activities, \$142,000

Problem 12-5B^A

Cash flows spreadsheet
(indirect method)

P1 P2 P3 P4

Refer to the information reported about Prius Company in Problem 12-4B.

Required

Prepare a complete statement of cash flows using a spreadsheet as in Exhibit 12A.1; report operating activities under the *indirect method*. Identify the debits and credits in the Analysis of Changes columns with letters that correspond to the following list of transactions and events.

- a. Net income was \$132,000.
- b. Accounts receivable increased.
- c. Merchandise inventory increased.
- d. Accounts payable increased.
- e. Income taxes payable increased.
- f. Depreciation expense was \$55,000.
- g. Purchased equipment for \$74,000 cash.
- h. Issued 10,000 shares at \$5 cash per share.
- i. Declared and paid \$85,000 of cash dividends.

Check Analysis of Changes column totals, \$555,000

Refer to Prius Company's financial statements and related information in Problem 12-4B.

Required

Prepare a complete statement of cash flows; report its cash flows from operating activities according to the *direct method*.

Problem 12-6B^B

Statement of cash flows (direct method) P1 P3 P5

Check Cash used by financing activities, \$(35,000)

Kodak Company's 2009 income statement and selected balance sheet data at December 31, 2008 and 2009, follow (\$ thousands).

Problem 12-7B

Computing cash flows from operations (indirect)

C4 P2

KODAK COMPANY Income Statement	
Sales revenue	\$312,000
Expenses	
Cost of goods sold	144,000
Depreciation expense	64,000
Salaries expense	40,000
Rent expense	10,000
Insurance expense	5,200
Interest expense	4,800
Utilities expense	4,000
Net income	<u>\$ 40,000</u>

KODAK COMPANY Selected Balance Sheet Accounts		
At December 31	2009	2008
Accounts receivable	\$720	\$600
Inventory	172	196
Accounts payable	480	520
Salaries payable	180	120
Utilities payable	40	0
Prepaid insurance	28	36
Prepaid rent	20	40

Required

Prepare the cash flows from operating activities section only of the company's 2009 statement of cash flows using the indirect method.

Check Cash from operating activities, \$103,992

Refer to the information in Problem 12-7B.

Required

Prepare the cash flows from operating activities section only of the company's 2009 statement of cash flows using the direct method.

Problem 12-8B^B

Computing cash flows from operations (direct)

C4 P5

(This serial problem began in Chapter 1 and continues through most of the book. If previous chapter segments were not completed, the serial problem can begin at this point. It is helpful, but not necessary, to use the Working Papers that accompany the book.)

SERIAL PROBLEM

Success Systems

SP 12 Adriana Lopez, owner of Success Systems, decides to prepare a statement of cash flows for her business. (Although the serial problem allowed for various ownership changes in earlier chapters, we will prepare the statement of cash flows using the following financial data.)



SUCCESS SYSTEMS Income Statement For Three Months Ended March 31, 2010	
Computer services revenue	\$25,160
Net sales	<u>18,693</u>
Total revenue	43,853
Cost of goods sold	\$14,052
Depreciation expense— Office equipment	400
Depreciation expense— Computer equipment	1,250
Wages expense	3,250
Insurance expense	555
Rent expense	2,475
Computer supplies expense	1,305
Advertising expense	600
Mileage expense	320
Repairs expense—Computer	<u>960</u>
Total expenses	<u>25,167</u>
Net income	<u>\$18,686</u>

SUCCESS SYSTEMS Comparative Balance Sheets December 31, 2009, and March 31, 2010		
	<u>2010</u>	<u>2009</u>
Assets		
Cash	\$ 77,845	\$58,160
Accounts receivable	22,720	5,668
Merchandise inventory	704	0
Computer supplies	2,005	580
Prepaid insurance	1,110	1,665
Prepaid rent	825	825
Office equipment	8,000	8,000
Accumulated depreciation—Office equipment	(800)	(400)
Computer equipment	20,000	20,000
Accumulated depreciation— Computer equipment	<u>(2,500)</u>	<u>(1,250)</u>
Total assets	<u>\$129,909</u>	<u>\$93,248</u>
Liabilities and Equity		
Accounts payable	\$ 0	\$ 1,100
Wages payable	875	500
Unearned computer service revenue	0	1,500
Common stock	108,000	83,000
Retained earnings	<u>21,034</u>	<u>7,148</u>
Total liabilities and equity	<u>\$129,909</u>	<u>\$93,248</u>

Required

Prepare a statement of cash flows for Success Systems using the *indirect method* for the three months ended March 31, 2010. Recall that the owner Adriana Lopez contributed \$25,000 to the business in exchange for additional stock in the first quarter of 2010 and has received \$4,800 in cash dividends.

Check Cash flows used by operations: \$(515)

BEYOND THE NUMBERS**REPORTING IN ACTION**C4 A1 

BTN 12-1 Refer to **Best Buy's** financial statements in Appendix A to answer the following.

1. Is Best Buy's statement of cash flows prepared under the direct method or the indirect method? How do you know?
2. For each fiscal year 2007, 2006, and 2005, is the amount of cash provided by operating activities more or less than the cash paid for dividends?
3. What is the largest amount in reconciling the difference between net income and cash flow from operating activities in 2007? In 2006? In 2005?
4. Identify the largest cash flows for investing and for financing activities in 2007 and in 2006.

Fast Forward

5. Obtain Best Buy's financial statements for a fiscal year ending after March 3, 2007, from either its Website (BestBuy.com) or the SEC's EDGAR database (www.sec.gov). Since March 3, 2007, what are Best Buy's largest cash outflows and cash inflows in the investing and in the financing sections of its statement of cash flow?

BTN 12-2 Key figures for **Best Buy**, **Circuit City**, and **RadioShack** follow.

(\$ millions)	Best Buy			Circuit City			RadioShack		
	Current Year	1 Year Prior	2 Years Prior	Current Year	1 Year Prior	2 Years Prior	Current Year	1 Year Prior	2 Years Prior
Operating cash flows	\$ 1,762	\$ 1,740	\$ 1,981	\$ 316	\$ 365	\$ 389	\$ 315	\$ 363	\$ 353
Total assets	13,570	11,864	10,294	4,007	4,069	3,840	2,070	2,205	2,517

COMPARATIVE ANALYSIS

A1 A2 



Required

1. Compute the recent two years' cash flow on total assets ratios for Best Buy, Circuit City, and RadioShack.
2. What does the cash flow on total assets ratio measure?
3. Which company has the highest cash flow on total assets ratio for the periods shown?
4. Does the cash flow on total assets ratio reflect on the quality of earnings? Explain.

BTN 12-3 Kaelyn Gish is preparing for a meeting with her banker. Her business is finishing its fourth year of operations. In the first year, it had negative cash flows from operations. In the second and third years, cash flows from operations were positive. However, inventory costs rose significantly in year 4, and cash flows from operations will probably be down 25%. Gish wants to secure a line of credit from her banker as a financing buffer. From experience, she knows the banker will scrutinize operating cash flows for years 1 through 4 and will want a projected number for year 5. Gish knows that a steady progression upward in operating cash flows for years 1 through 4 will help her case. She decides to use her discretion as owner and considers several business actions that will turn her operating cash flow in year 4 from a decrease to an increase.

ETHICS CHALLENGE

C1 C2 A1  

Required

1. Identify two business actions Gish might take to improve cash flows from operations.
2. Comment on the ethics and possible consequences of Gish's decision to pursue these actions.

BTN 12-4 Your friend, Hanna Willard, recently completed the second year of her business and just received annual financial statements from her accountant. Willard finds the income statement and balance sheet informative but does not understand the statement of cash flows. She says the first section is especially confusing because it contains a lot of additions and subtractions that do not make sense to her. Willard adds, "The income statement tells me the business is more profitable than last year and that's most important. If I want to know how cash changes, I can look at comparative balance sheets."

COMMUNICATING IN PRACTICE

C1 C4  

Required

Write a half-page memorandum to your friend explaining the purpose of the statement of cash flows. Speculate as to why the first section is so confusing and how it might be rectified.

BTN 12-5 Access the April 19, 2007, filing of the 10-K report (for fiscal year ending February 3, 2007) of **J. Crew Group, Inc.**, at www.sec.gov.

TAKING IT TO THE NET

A1 

Required

1. Does J. Crew use the direct or indirect method to construct its consolidated statement of cash flows?
2. For the fiscal year ended February 3, 2007, what is the largest item in reconciling the net income to net cash provided by operating activities?
3. In the recent three years, has the company been more successful in generating operating cash flows or in generating net income? Identify the figures to support the answer.
4. In the year ended February 3, 2007, what was the largest cash outflow for investing activities and for financing activities?
5. What item(s) does J. Crew report as supplementary cash flow information?
6. Does J. Crew report any noncash financing activities for fiscal year 2007? Identify them, if any.

TEAMWORK IN ACTION

C1 C4 A1 P2 P5

Note: For teams of more than four, some pairing within teams is necessary. Use as an in-class activity or as an assignment. If used in class, specify a time limit on each part. Conclude with reports to the entire class, using team rotation. Each team can prepare responses on a transparency.

BTN 12-6 Team members are to coordinate and independently answer one question within each of the following three sections. Team members should then report to the team and confirm or correct teammates' answers.

1. Answer *one* of the following questions about the statement of cash flows.
 - a. What are this statement's reporting objectives?
 - b. What two methods are used to prepare it? Identify similarities and differences between them.
 - c. What steps are followed to prepare the statement?
 - d. What types of analyses are often made from this statement's information?
2. Identify and explain the adjustment from net income to obtain cash flows from operating activities using the indirect method for *one* of the following items.
 - a. Noncash operating revenues and expenses.
 - b. Nonoperating gains and losses.
 - c. Increases and decreases in noncash current assets.
 - d. Increases and decreases in current liabilities.
- 3.^B Identify and explain the formula for computing cash flows from operating activities using the direct method for *one* of the following items.
 - a. Cash receipts from sales to customers.
 - b. Cash paid for merchandise inventory.
 - c. Cash paid for wages and operating expenses.
 - d. Cash paid for interest and taxes.

ENTREPRENEURIAL DECISION

C1 A1  

BTN 12-7 Review the chapter's opener involving **Jungle Jim's International Market**.

Required

1. In a business such as Jungle Jim's, monitoring cash flow is always a priority. Even though Jungle Jim's now has thousands in annual sales and earns a positive net income, explain how cash flow can lag behind earnings.
2. Jungle Jim's is a closely held corporation. What are potential sources of financing for its future expansion?

C2 A1  

BTN 12-8 Jenna and Matt Wilder are completing their second year operating Mountain High, a downhill ski area and resort. Mountain High reports a net loss of \$(10,000) for its second year, which includes an \$85,000 extraordinary loss from fire. This past year also involved major purchases of plant assets for renovation and expansion, yielding a year-end total asset amount of \$800,000. Mountain High's net cash outflow for its second year is \$(5,000); a summarized version of its statement of cash flows follows:

Net cash flow provided by operating activities	\$295,000
Net cash flow used by investing activities	(310,000)
Net cash flow provided by financing activities	10,000

Required

Write a one-page memorandum to the Wilders evaluating Mountain High's current performance and assessing its future. Give special emphasis to cash flow data and their interpretation.

HITTING THE ROAD

C1

BTN 12-9 Visit **The Motley Fool's Website (Fool.com)**. Click on the sidebar link titled *Fool's School* (or *Fool.com/School*). Identify and select the link *How to Value Stocks*.

Required

1. Click on *Introduction to Valuation*, and then *Cash-Flow-Based Valuations*. How does the Fool's school define cash flow? What is the School's reasoning for this definition?
2. Per the school's instruction, why do analysts focus on earnings before interest and taxes (EBIT)?
3. Visit other links at this Website that interest you such as "How to Read a Balance Sheet," or find out what the "Fool's Ratio" is. Write a half-page report on what you find.

BTN 12-10 Key comparative information for **DSG international plc (DSGiplc.com)** follows.

(£ millions)	Current Year	1 Year Prior	2 Years Prior
Operating cash flows	£ 207	£ 338	£ 375
Total assets	3,977	4,120	4,104

GLOBAL DECISION

C1 C2 C4



Required

1. Compute the recent two years' cash flow on total assets ratio for DSG.
2. How does DSG's ratio compare to Best Buy's, Circuit City's, and RadioShack's ratios from BTN 12-2?

ANSWERS TO MULTIPLE CHOICE QUIZ

1. b;

Net income	\$15,200
Depreciation expense	10,000
Gain on sale of land	(3,000)
Increase in inventory	(1,500)
Increase in accounts payable	<u>2,850</u>
Net cash provided by operations	<u>\$23,550</u>

3. d; FASB requires cash interest paid to be reported under operating.
4. a; Cash paid for salaries and wages = \$255,000 + \$8,200 – \$10,900 = \$252,300
5. e; Increase in inventory = \$112,000 – \$105,000 = \$7,000
 Increase in accounts payable = \$101,300 – \$98,500 = \$2,800
 Cash paid for merchandise = \$545,000 + \$7,000 – \$2,800 = \$549,200

2. c; cash received from sale of machine is reported as an investing activity.