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Constructing the Statement of Cash Flow: An Expanded Discussion

STARBUCKS

PREMIUMS IN COFFEE

Starbucks Corporation is the leading retailer, roaster, and brander of specialty coffee in the world. It has more than 7,500 retail locations in North America, Latin America, Europe, the Middle East, and the Pacific Rim. Starbucks sells high quality coffee and the “Starbucks Experience.” It also produces and sells bottled Frappuccino® coffee drinks, Starbucks DoubleShot™ coffee drink, and a line of superpremium ice creams through its joint venture partnerships. Its Tazo Tea’s line of premium teas and Hear Music’s compact discs further add to its product offerings. Seattle’s Best Coffee® and Torrefazione Italia® Coffee brands also help Starbucks appeal to a broader consumer base. (Starbucks Website, 2005)

Starbucks’ fiscal year 2003 resulted in \$4.1 billion in total net revenues, a 24% year-over-year growth, and \$267 million in net income, a 26% year-over-year growth. It also reported an 8% comparable store sales growth, which represents the 12th consecutive year of 5% or greater growth. This past year, Starbucks was recognized by *Fortune* magazine as number 8 on its list of America’s Most Admired Companies and number 34 in its ranking of 100 Best Companies to Work For. Starbucks was also listed among *Business Ethics* magazine’s 100 Best Corporate Citizens.

Product lines of the major U.S. brewed coffee sellers are well defined. On the high end there is Starbucks, with 5,439 U.S. locations. It has made its expensive cappuccinos, frappuccinos, espressos, and lattes part of the common lexicon. On the other end, there is **Dunkin’ Donuts**, which has 4,100 stores. Dunkin’ Donuts is the largest seller of regular, nonflavored brewed coffee in the U.S. fast-food outlets. It has a 17% market share, compared with 15% for **McDonald’s Corporation** and 6% for Starbucks.

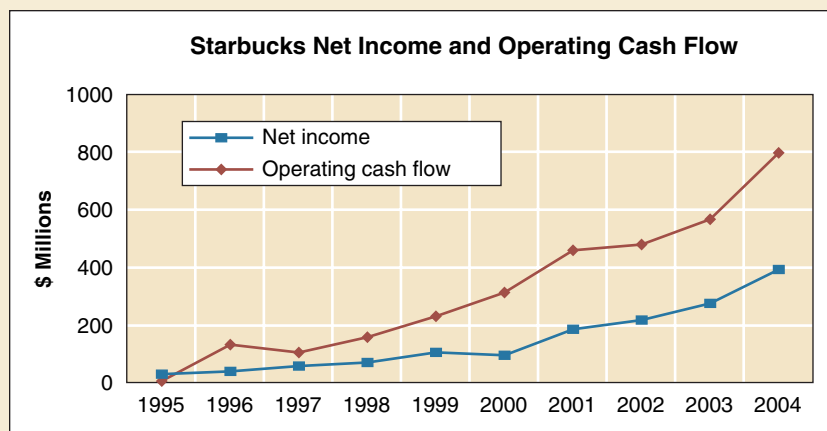
The Wall Street Journal recently reported that “there’s a new brew-haha in Latte-land . . . Starbucks increasingly is looking for growth by opening stores in blue-collar communities where Dunkin’ Donuts would typically dominate . . . At the same time, Dunkin’ Donuts, a unit of United Kingdom spirits group **Allied Domecq PLC**, wants to lure Starbucks’s well-heeled customers with a new line of Italian brews that it claims it can deliver faster, cheaper and simpler.” (*WSJ*, February 2004)

Although competition exists, Starbucks recent 2004 performance is difficult to top. In the last 10 years, Starbucks’ sales have increased from \$285 million to over \$4 billion and its income has increased from \$29



million to nearly \$400 million. An investor purchasing its stock 10 years ago at a split-adjusted price of \$3.45 would have seen its value grow to \$35 today.

During this same decade, Starbucks' net income and operating cash flows have increased by 15 times and 61 times, respectively. This is graphically portrayed as follows:



Both net income and operating cash flows are important in assessing the financial health of a company and its value. Starbucks is generating much more cash than it is reporting in income. Why is this? What does it mean? In this module, we describe the process of constructing the statement of cash flows. We also describe how we can use and interpret the statement of cash flows to aid both internal and external decisions makers.

Sources: Ball and Leung, "Latte Versus Latte—Starbucks, Dunkin' Donuts Seek Growth by Capturing Each Other's Customers," *The Wall Street Journal*, 10 February 2004; Starbucks 2004 and 2003 *Annual Reports* and *10-K Reports*.

■ INTRODUCTION

The **statement of cash flows** is a financial statement that summarizes information about the flow of cash into and out of a company. In this appendix, we discuss the preparation, analysis, and interpretation of the statement of cash flows.

The statement of cash flows complements the balance sheet and the income statement. The balance sheet reports the company's financial position at a point in time (the end of each period) whereas the statement of cash flows explains the change in one of its components—cash—from one balance sheet date to the next. The income statement reveals the results of the company's operating activities for the period, and these operating activities are a major contributor to the change in cash as reported in the statement of cash flows.

The statement of cash flows explains the change in a firm's cash *and* cash equivalents. **Cash equivalents** are short-term, highly liquid investments that are (1) easily convertible into a known cash amount and (2) close enough to maturity so that their market value is not sensitive to interest rate changes (generally, investments with initial maturities of three months or less). Treasury bills, commercial paper (short-term notes issued by corporations), and money market funds are typical examples of cash equivalents.

When preparing a statement of cash flows, the cash and cash equivalents are added together and treated as a single sum. This is done because the purchase and sale of investments in cash equivalents are considered to be part of a firm's overall management of cash rather than a source or use of cash. As statement users evaluate and project cash flows, for example, it should not matter whether the cash is readily available, deposited in a bank account, or invested in cash equivalents. Transfers back and forth between a firm's cash account and its investments in cash equivalents, therefore, are not treated as cash inflows and cash outflows in its statement of cash flows.

When discussing the statement of cash flows, managers generally use the word *cash* rather than the term *cash and cash equivalents*. We will follow the same practice in this appendix.

■ FRAMEWORK OF THE STATEMENT OF CASH FLOWS

In analyzing the statement of cash flows, we must not necessarily conclude that the company is better off if cash increases and worse off if cash decreases. It is not the cash change that is most important, but the sources for that change. For example, what are the sources of cash inflows? Are these sources transitory? Are these sources mainly from operating activities?

We must also review the uses of cash. Has the company invested its cash in operating areas to strengthen its competitive position? Is it able to comfortably meet its debt obligations? Has it diverted cash to creditors or investors at the expense of the other? Such questions and answers are key to properly applying the statement of cash flows for business decisions.

The statement of cash flows classifies cash receipts and payments into one of three categories: operating activities, investing activities, or financing activities. Classifying cash flows into these categories identifies the effects on cash of each of the major activities of a firm. The combined effects on cash of all three categories explain the net change in cash for the period. The period's net change in cash is then reconciled with the beginning and ending amounts of cash.

Exhibit B.1 reproduces Starbucks' statement of cash flows (\$ thousands). During 2003, Starbucks reported net income of \$268.346 million and generated \$566.447 million of cash from operating activities. The company used \$499.258 million of cash for investing activities and raised \$30.763 million of cash from financing activities. In sum, Starbucks increased its cash reserves by \$101.230 million, from \$99.677 million at the beginning of fiscal 2003 to \$200.907 million at the end of fiscal 2003.

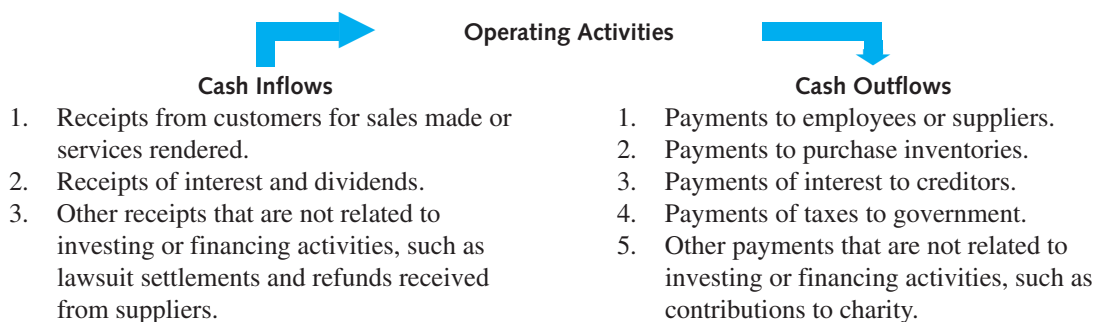
Operating Activities

A company's income statement reflects mainly the transactions and events that constitute its operating activities. Generally, the cash effects of these operating transactions and events determine the net cash flow from operating activities. The usual focus of a firm's **operating activities** is on selling goods or rendering

EXHIBIT B.1 ■ Statement of Cash Flows for Starbucks

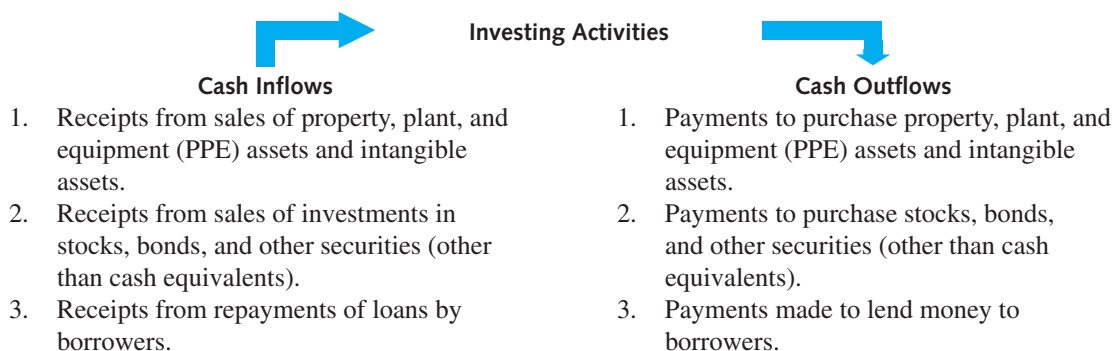
CONSOLIDATED STATEMENTS OF CASH FLOWS		
Fiscal Year Ended (In thousands)	Sept 28, 2003	Sept 29, 2002
Operating activities		
Net earning	\$ 268,346	\$ 212,686
Adjustments to reconcile net earnings to net cash provided by operating activities		
Depreciation and amortization	259,271	221,141
Gain on sale of investment	—	(13,361)
Internet-related investment losses	—	—
Provision for impairments and asset disposals	7,784	26,852
Deferred income taxes, net	(5,932)	(6,088)
Equity in income of investees	(22,813)	(19,584)
Tax benefit from exercise of nonqualified stock options	36,590	44,199
Net accretion of discount and amortization of premium on marketable securities	5,996	—
Cash provided (used) by changes in operating assets and liabilities		
Inventories	(64,768)	(41,379)
Prepaid expenses and other current assets	(12,861)	(12,460)
Accounts payable	24,990	5,463
Accrued compensation and related costs	42,132	24,087
Accrued occupancy costs	4,293	15,343
Deferred revenue	30,732	15,321
Other operating assets and liabilities	(7,313)	5,465
Net cash provided by operating activities	566,447	477,685
Investing activities		
Purchase of available-for-sale securities	(323,331)	(339,968)
Maturity of available-for-sale securities	180,687	78,349
Sale of available-for-sale securities	88,889	144,760
Purchase of Seattle Coffee Company, net of cash acquired	(69,928)	—
Net additions to equity, other investments and other assets	(47,259)	(15,841)
Distributions from equity investees	28,966	22,834
Net additions to property, plant, and equipment	(357,282)	(375,474)
Net cash used by investing activities	(499,258)	(485,340)
Financing activities		
Proceeds from issuance of common stock	107,183	107,467
Principal payments on long-term debt	(710)	(697)
Repurchase of common stock	(75,710)	(52,248)
Net cash provided by financing activities	30,763	54,522
Effect of exchange rate changes on cash and cash equivalents	3,278	1,560
Net increase in cash and cash equivalents	101,230	48,427
Cash and cash equivalents, beginning of period	99,677	51,250
Cash and cash equivalents, end of period	\$ 200,907	\$ 99,677

services, but the activities are defined broadly enough to include any cash receipts or payments that are not classified as investing or financing activities. For example, cash received from collection of receivables and cash payments to purchase inventories are treated as cash flows from operating activities. The following are examples of cash inflows and outflows relating to operating activities.



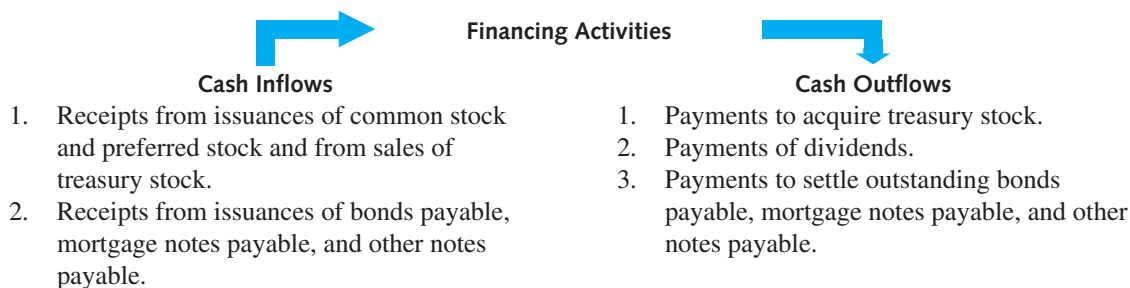
Investing Activities

A firm's transactions involving (1) the acquisition and disposal of property, plant, and equipment (PPE) assets and intangible assets, (2) the purchase and sale of stocks, bonds, and other securities (that are not cash equivalents), and (3) the lending and subsequent collection of money constitute the basic components of its **investing activities**. The related cash receipts and payments appear in the investing activities section of the statement of cash flows. Examples of these cash flows follow.



Financing Activities

A firm engages in **financing activities** when it obtains resources from owners, returns resources to owners, borrows resources from creditors, and repays amounts borrowed. Cash flows related to these transactions are reported in the financing activities section of the statement of cash flows. Examples of these cash flows follow.



Paying cash to settle such obligations as accounts payable, wages payable, interest payable, and income tax payable are operating activities, not financing activities. Also, cash received as interest and dividends and cash paid as interest (not dividends) are classified as cash flows from operating activities.

Usefulness of Classifications

The classification of cash flows into three categories of activities helps financial statement users interpret cash flow data. To illustrate, assume that companies D, E, and F are similar companies operating in the same industry. Each company reports a \$100,000 cash increase during the current year. Information from their current year statements of cash flows is summarized below.

	Company D	Company E	Company F
Net cash provided by operating activities	\$100,000	\$ 0	\$ 0
Cash flows from investing activities			
Sale of property, plant, and equipment (PPE)	0	100,000	0
Cash flows from financing activities			
Issuance of notes payable	0	0	100,000
Net increase in cash	<u>\$100,000</u>	<u>\$100,000</u>	<u>\$100,000</u>

Although each company's net cash increase was the same, the source of the increase varied by company. This variation affects the analysis of the cash flow data, particularly for potential short-term creditors who must evaluate the likelihood of obtaining repayment in the future for any funds loaned to the company. Based only on these cash flow data, a potential creditor would feel more comfortable lending money to D than to either E or F. This is because D's cash increase came from its operating activities, whereas both E and F could only break even on their cash flows from operations. Also, E's cash increase came from the sale of property, plant, and equipment (PPE) assets, a source that is not likely to recur regularly. F's cash increase came entirely from borrowed funds. This means F faces additional cash burdens in the future when the interest and principal payments on the note payable become due.

Noncash Investing and Financing Activities

Another objective of cash flow reporting is to present summary information about a firm's investing and financing activities. Of course, many of these activities affect cash and are therefore already included in the investing and financing sections of the statement of cash flows. Some significant investing and financing events, however, do not affect current cash flows. Examples of **noncash investing and financing activities** are the issuance of stocks, bonds, or leases in exchange for property, plant, and equipment (PPE) assets or intangible assets; the exchange of long-term assets for other long-term assets; and the conversion of long-term debt into common stock. Information about these events must be reported as a supplement to the statement of cash flows.

Noncash investing and financing transactions generally do affect *future* cash flows. Issuing bonds payable to acquire equipment, for example, requires future cash payments for interest and principal on the bonds. On the other hand, converting bonds payable into common stock eliminates future cash payments related to the bonds. Knowledge of these types of events, therefore, is helpful to users of cash flow data who wish to assess a firm's future cash flows.

Information on noncash investing and financing transactions is disclosed in a schedule that is separate from the statement of cash flows. The separate schedule either is reported immediately below the statement of cash flows, or is reported among the notes to the financial statements.

BUSINESS INSIGHT Objectivity of Cash

Usefulness of financial statements is enhanced when the underlying data are objective and verifiable. Measuring cash and the changes in cash are among the most objective measurements that accountants make. Thus, the statement of cash flows is arguably the most objective financial statement. This characteristic of the statement of cash flows is welcomed by those investors and creditors interested in evaluating the quality of a firm's income.

Usefulness of the Statement of Cash Flows

A statement of cash flows shows the periodic cash effects of a firm's operating, investing, and financing activities. Distinguishing among these different categories of cash flows helps users compare, evaluate, and predict cash flows. With cash flow information, creditors and investors are better able to assess a firm's ability to settle its liabilities and pay its dividends. A firm's need for outside financing is also better evaluated when using cash flow data. Over time, the statement of cash flows permits users to observe and access management's investing and financing policies.

A statement of cash flows also provides information useful in evaluating a firm's financial flexibility. *Financial flexibility* is a firm's ability to generate sufficient amounts of cash to respond to unanticipated needs and opportunities. Information about past cash flows, particularly cash flows from operations, helps in assessing financial flexibility. An evaluation of a firm's ability to survive an unexpected drop in demand, for example, should include a review of its past cash flows from operations. The larger these cash flows, the greater is the firm's ability to withstand adverse changes in economic conditions. Other financial statements, particularly the balance sheet and its notes, also contain information useful for judging financial flexibility.

Some investors and creditors find the statement of cash flows useful in evaluating the quality of a firm's income. As we know, determining income under accrual accounting procedures requires many accruals, deferrals, allocations, and valuations. These adjustment and measurement procedures introduce more subjectivity into income determination than some financial statement users prefer. These users relate a more objective performance measure—cash flow from operations—to net income. To these users, the higher this ratio is, the higher is the quality of income.

■ NET CASH FLOW FROM OPERATING ACTIVITIES

The first section of a statement of cash flows presents a firm's net cash flow from operating activities. Two alternative formats are used to report the net cash flow from operating activities: the *indirect method* and the *direct method*. *Both methods report the same amount of net cash flow from operating activities.* (Net cash flows from investing and financing activities are prepared in the same manner under both the indirect and direct methods; only the format for cash flows from operating activities differ.)

The *indirect method* starts with net income and applies a series of adjustments to net income to convert it to a cash-basis income number, which is the net cash flow from operating activities. The adjustments to net income do not represent specific cash flows, however, so the indirect method does not report any detail concerning individual operating cash inflows and outflows. In contrast, the *direct method* shows individual amounts of cash inflows and cash outflows for the major operating activities. The net difference between these inflows and outflows is the net cash flow from operating activities.

Accountants estimate that *more than 98% of companies preparing the statement of cash flows use the indirect method.* The indirect method is popular because (1) it is easier and less expensive to prepare than the direct method and (2) the direct method requires a supplemental disclosure showing the indirect method (thus, essentially reporting both methods).

The remainder of this appendix discusses the preparation of the statement of cash flows. The indirect method is presented in this section, and the direct method is presented in Appendix B1. (These discussions are independent of each other; both provide complete coverage of the preparation of the statement of cash flows.)

BUSINESS INSIGHT Comparison of Accrual and Cash-Basis Amounts

Accountants compute net income, shown on the income statement, using accrual accounting procedures. The net cash flow from operating activities may be larger, smaller, or about the same amount. Financial data from recent annual reports of three companies bear this out.

	Net Income or (Loss)	Net Cash Provided (Used) by Operating Activities
JC Penney	\$ (928) million	\$ 748 million
General Motors	4,063 million	(4,648) million
GlaxoSmithKline	8,022 million	8,694 million

To prepare a statement of cash flows, we need a firm's income statement, comparative balance sheets, and some additional data taken from the accounting records. Exhibit B.2 presents this information for **Java House**. We use these data to prepare Java's 2005 statement of cash flows using the indirect method.

EXHIBIT B.2 ■ Financial Data of Java House

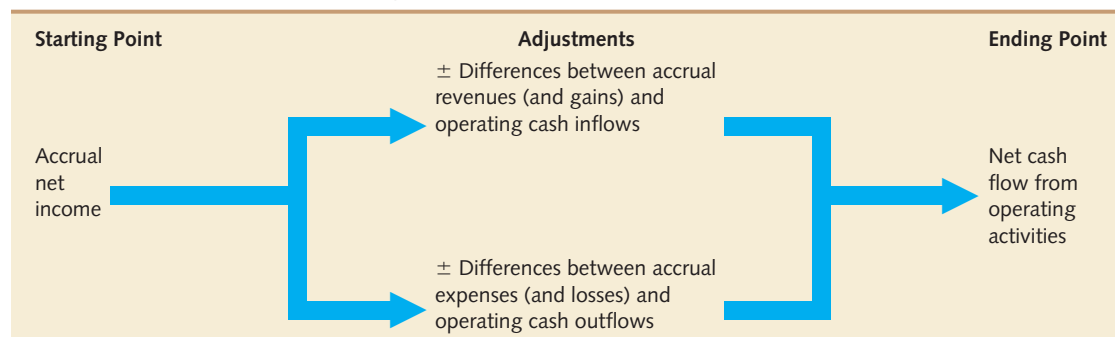
JAVA HOUSE Income Statement For Year Ended December 31, 2005		JAVA HOUSE Balance Sheet Dec. 31, 2005 Dec. 31, 2004	
Sales	\$250,000	Assets	
Cost of goods sold	\$148,000	Cash	\$ 35,000 \$ 10,000
Wages expense	52,000	Accounts receivable	39,000 34,000
Insurance expense	5,000	Inventory	54,000 60,000
Depreciation expense	10,000	Prepaid insurance	17,000 4,000
Income tax expense	11,000	Long-term investments	15,000 —
Gain on sale of land	(8,000) 218,000	PPE assets	180,000 200,000
Net income	<u>\$ 32,000</u>	Accumulated depreciation	(50,000) (40,000)
		Patent	60,000 —
		Total assets	<u>\$350,000</u> <u>\$268,000</u>
		Liabilities and Equity	
		Accounts payable	\$ 10,000 \$ 19,000
		Income tax payable	5,000 3,000
		Common stock	260,000 190,000
		Retained earnings	75,000 56,000
		Total liabilities and equity	<u>\$350,000</u> <u>\$268,000</u>

Additional Data for 2005	
1.	Purchased all long-term stock investments for cash at year-end.
2.	Sold land costing \$20,000 for \$28,000 cash.
3.	Acquired \$60,000 patent at year-end by issuing common stock at par.
4.	All accounts payable relate to merchandise purchases.
5.	Issued common stock at par for \$10,000 cash.
6.	Declared and paid cash dividends of \$13,000.

Java's statement of cash flows explains the \$25,000 increase in cash that occurred during 2005 (from \$10,000 to \$35,000) by classifying the firm's cash flows into operating, investing, and financing categories. To get the information to construct the statement we do the following:

1. **Use the indirect method to determine the net cash flow from operating activities.** We apply a series of adjustments to the firm's net income. The adjustments include changes in various current asset and current liability accounts.
2. **Determine cash flows from investing activities.** We do this by analyzing changes in noncurrent asset accounts.
3. **Determine cash flows from financing activities.** We do this by analyzing changes in liability and equity accounts.

The **indirect method** presents the net cash flow from operating activities by applying a series of adjustments to net income to convert it to a cash-basis amount. The adjustment amounts represent differences between revenues, expenses, gains, and losses recorded under accrual accounting and the related operating cash inflows and outflows. The adjustments are added to or subtracted from net income, depending on whether the related cash flow is more or less than the accrual amount. Exhibit B.3 portrays this process.

EXHIBIT B.3 ■ Indirect Method Operating Adjustments

Convert Net Income to Net Cash Flow from Operating Activities

The following chart summarizes the adjustments to net income in determining operating cash flows. These are the adjustments applied under the indirect method of computing cash flow from operations.

Business Account or Activity	Adjustment to Net Income	
Allocations of noncurrent prepaid expenses*	Added	
Allocations of noncurrent unearned revenues [†]	Subtracted	
Divestiture of noncurrent assets	Losses added	Gains subtracted
Divestiture of noncurrent liabilities	Losses added	Gains subtracted
Current assets (noncash)	Increases subtracted	Decreases added
Current liabilities [‡]	Increases added	Decreases subtracted

*Examples are allocations of long-term asset costs such as depreciation, amortization, and depletion.

[†]Examples are allocations of long-term unearned revenues such as subscriptions, gift certificates, and service contracts.

[‡]Excludes short-term debt, current portion of long-term debt, and dividends payable.

Exhibit B.4 identifies several specific adjustments to convert net income to net cash flow from operating activities. The first several adjustments cover depreciation expense, amortization expense, and gains and losses from investing and financing activities. The remaining adjustments relate to the effects on cash flow of changes in current assets and current liabilities. If there is a net loss for the period, the indirect method begins with the net loss. It is possible for the net amount of add-backs to exceed the loss so that there is a positive net cash flow from operating activities even when there is an accrual net loss.

EXHIBIT B.4 ■ Adjustments to Convert Net Income to Net Cash Flow from Operating Activities

Add to Net Income	Deduct from Net Income
Depreciation expense	
Amortization expense	
Depletion expense	
Losses (investing and financing)	Gains (investing and financing)
Decrease in accounts receivable	Increase in accounts receivable
Decrease in inventory	Increase in inventory
Decrease in prepaid expenses	Increase in prepaid expenses
Increase in accounts payable	Decrease in accounts payable
Increase in accrued liabilities	Decrease in accrued liabilities

Java House Case Illustration

We next explain these adjustments and illustrate them with Java House's data from Exhibit B.2.

Depreciation, Amortization, and Depletion Expenses

Depreciation, amortization, and depletion expenses represent write-offs of previously recorded assets; so-called noncash expenses. Because depreciation, amortization, and depletion expenses are subtracted in computing net income, we add these expenses to net income as we convert it to a related net operating cash flow. Adding these expenses to net income eliminates them from the income statement and is a necessary adjustment to obtain cash income. Java House had \$10,000 of 2005 depreciation expense, so this amount is added to Java's net income of \$32,000.

Net income	\$32,000
Add: Depreciation	10,000

Gains and Losses Related to Investing or Financing Activities

The income statement may contain gains and losses that relate to investing or financing activities. Gains and losses from the sale of investments, PPE assets, or intangible assets illustrate gains and losses from investing (not operating) activities. A gain or loss from the retirement of bonds payable is an example of a financing gain or loss. The full cash flow effect from these types of events is reported in the investing or financing sections of the statement of cash flows. Therefore, the related gains or losses must be eliminated as we convert net income to net cash flow from operating activities. To eliminate their impact on net income, gains are subtracted and losses are added to net income. Java House had an \$8,000 gain from the sale of land in 2005. This gain relates to an investing activity, so it is subtracted from Java's net income.

Net income	\$32,000
Add: Depreciation	10,000
Deduct: Gain on sale of land	(8,000)

Accounts Receivable Change

Credit sales increase accounts receivable; cash collections on account decrease accounts receivable. If, overall, accounts receivable decrease during a year, then cash collections from customers exceed credit sales revenue by the amount of the decrease. Because sales are added in computing net income, the decrease in accounts receivable is added to net income. In essence, this adjustment replaces the sales amount with the larger amount of cash collections from customers. If accounts receivable increase during a year, then sales revenue exceeds the cash collections from customers by the amount of the increase. Because sales are added in computing net income, the increase in accounts receivable is subtracted from net income as we convert it to a net cash flow from operating activities. In essence, this adjustment replaces the sales amount with the smaller amount of cash collections from customers. Java's accounts receivable increased \$5,000 during 2005, so this increase is subtracted from net income under the indirect method.

Net income	\$32,000
Add: Depreciation	10,000
Deduct: Gain on sale of land	(8,000)
Deduct: Accounts receivable increase	(5,000)

Inventory Change

The adjustment for an inventory change is one of two adjustments to net income that together cause the cost of goods sold expense to be replaced by an amount representing the cash paid during the period for merchandise purchased. The second adjustment, which we examine shortly, is for the change in accounts payable. The effect of the inventory adjustment alone is to adjust net income for the difference between the cost of goods sold and the cost of merchandise purchased during the period. The cost of merchandise purchased increases inventory; the cost of goods sold decreases inventory. An overall decrease in inventory during a period must mean, therefore, that the cost of merchandise purchased was less than the cost of goods sold by the amount of the decrease. Because cost of goods sold was subtracted in computing net income, the inventory decrease is added to net income. After this adjustment, the effect of the cost of goods sold on net income has been replaced by the smaller cost of merchandise purchased. Similarly, if inventory increased during a period, the cost of merchandise purchased is larger than the cost of goods sold by the amount of the increase. To replace the cost of goods sold with the cost of merchandise purchased, the inventory increase is subtracted from net income. Java's inventory decreased \$6,000 during 2005, so this decrease is added to net income.

Net income	\$32,000
Add: Depreciation	10,000
Deduct: Gain on sale of land	(8,000)
Deduct: Accounts receivable increase	(5,000)
Add: Inventory decrease	6,000

Prepaid Expenses Change

Cash prepayments of various expenses increase a firm's prepaid expenses. When the related expenses for the period are subsequently recorded, the prepaid expenses decrease. An overall decrease in prepaid expenses for a period means that the cash prepayments were less than the related expenses. Because the expenses were subtracted in determining net income, the indirect method adds the decrease in prepaid expenses to net income as it is converted to a cash flow amount. The effect of the addition is to replace the expense amount with the smaller cash payment amount. Similarly, an increase in prepaid expenses is subtracted from net income because an increase means that the cash prepayments during the year were more than the related expenses. Java's prepaid insurance increased \$13,000 during 2005, so this increase is deducted from net income.

Net income	\$32,000
Add: Depreciation	10,000
Deduct: Gain on sale of land	(8,000)
Deduct: Accounts receivable increase	(5,000)
Add: Inventory decrease	6,000
Deduct: Prepaid insurance increase	(13,000)

Accounts Payable Change

When merchandise is purchased on account, accounts payable increase by the amount of the goods' cost. Accounts payable decrease when cash payments are made to settle the accounts. An overall decrease in accounts payable during a year means that cash payments for purchases were more than the cost of the purchases. An accounts payable decrease, therefore, is subtracted from net income under the indirect method. The deduction, in effect, replaces the cost of merchandise purchased with the larger cash payments for merchandise purchased. (Recall that the earlier inventory adjustment replaced the cost of goods sold with the cost of merchandise purchased.) In contrast, an increase in accounts payable means that cash payments for purchases were less than the cost of purchases for the period. Thus, an accounts payable increase is added to net income as it is converted to a cash flow amount. Java House shows a \$9,000 decrease in accounts payable during 2005. This decrease is subtracted from net income.

Net income	\$32,000
Add: Depreciation	10,000
Deduct: Gain on sale of land	(8,000)
Deduct: Accounts receivable increase	(5,000)
Add: Inventory decrease	6,000
Deduct: Prepaid insurance increase	(13,000)
Deduct: Accounts payable decrease	(9,000)

Accrued Liabilities Change

Changes in accrued liabilities are interpreted the same way as changes in accounts payable. A decrease means that cash payments exceeded the related expense amounts; an increase means that cash payments were less than the related expenses. Decreases are subtracted from net income; increases are added to net income. Java has one accrued liability, income tax payable, and it increased by \$2,000 during 2005. The \$2,000 increase is added to net income.

Net income	\$32,000
Add: Depreciation	10,000
Deduct: Gain on sale of land	(8,000)
Deduct: Accounts receivable increase	(5,000)
Add: Inventory decrease	6,000
Deduct: Prepaid insurance increase	(13,000)
Deduct: Accounts payable decrease	(9,000)
Add: Income tax payable increase	2,000

We have now identified the adjustments to convert Java's net income to its net cash flow from operating activities. The operating activities section of the statement of cash flows appears as follows under the indirect method:

Net income	\$32,000
Add (deduct) items to convert net income to cash basis:	
Depreciation	10,000
Gain on sale of land	(8,000)
Accounts receivable increase	(5,000)
Inventory decrease	6,000
Prepaid insurance increase	(13,000)
Accounts payable decrease	(9,000)
Income tax payable increase	2,000
Net cash provided by operating activities	<u>\$15,000</u>

To summarize, net cash flows from operating activities begin with net income (loss) and eliminates non-cash expenses (such as depreciation) and any gains and losses that are properly reported in the investing and financing sections. Next, cash inflows (outflows) relating to changes in the level of current operating assets and liabilities are added (subtracted) to yield net cash flows from operating activities. During the period, Java earned cash operating profits of \$34,000 ($\$32,000 + \$10,000 - \$8,000$), but used \$19,000 of cash ($-\$5,000 + \$6,000 - \$13,000 - \$9,000 + \$2,000$) to increase net working capital. Cash outflows relating to the increase in net working capital is a common occurrence for growing companies, and this net asset increase must be financed just like the increase in PPE assets.

BUSINESS INSIGHT**Starbucks' Add-Backs for Operating Cash Flow**

Starbucks reports \$268.346 million of net income for 2003 and \$566.447 million of operating cash inflows. The difference between these numbers is mainly due to \$259.271 million of depreciation expense that is included in net income. Depreciation is a noncash charge; an expense not requiring cash payment. It is added back to income in computing operating cash flows. Starbucks also reports a \$7.784 million asset impairment (write-down). This, too, is a noncash charge and is an addback in computing operating cash flows. Starbucks subtracts \$5.932 million for deferred taxes, indicating that cash payments of taxes are greater than tax expense reported in income (this is due to increased deferred tax assets). It also subtracts \$22.813 million for equity in income of investees, meaning that it reported equity income that it did not receive in cash in the form of dividends (see Module 6). Its tax benefit relating to stock options arises from the tax credits it receives when employees exercise options. It reports no expense relating to these options in its income statement. The \$5.996 million relating to accretion of discounts (premiums) on marketable securities indicates it reported that amount as an expense that does not require cash payment (see Module 7).

MANAGERIAL DECISION**You Are the Securities Analyst**

You are analyzing a company's statement of cash flows. The company has two items relating to its accounts receivable. First, the company finances the sale of its products to some customers; the increase to notes receivable is classified as an investing activity. Second, the company sells its accounts receivable to a separate entity, such as a trust. As a result, sale of receivables is reported as an asset sale, this reduces receivables and yields a gain or loss on sale (in this case, the company is not required to consolidate the trust as a Primary Beneficiary of a Variable Interest Entity—see module 9). This action increases its operating cash flows. How should you interpret this cash flow increase? [Answer, p. B-25]

■ CASH FLOWS FROM INVESTING ACTIVITIES

Analyze Remaining Noncash Assets

Investing activities cause changes in asset accounts. Usually the accounts affected (other than cash) are noncurrent asset accounts such as property, plant and equipment assets and long-term investments, although short-term investment accounts can also be affected. To determine the cash flows from investing activities, *we analyze changes in all noncash asset accounts not used in computing net cash flow from operating activities.* Our objective is to identify any investing cash flows related to these changes.

Java House Case Illustration

Analyze Change in Long-Term Investments

Java's comparative balance sheets show that long-term investments increased \$15,000 during 2005. The increase means that investments must have been purchased, and the additional data reported indicates that cash was spent to purchase long-term stock investments. Purchasing stock is an investing activity. Thus, a \$15,000 purchase of stock investments is reported as a cash outflow from investing activities in the statement of cash flows.

Analyze Change in Property, Plant and Equipment Assets

Java's PPE assets decreased \$20,000 during 2005. PPE assets decrease as the result of disposals, and the additional data for Java House indicate that land was sold for cash in 2005. Selling land is an investing activity. Thus, the sale of land for \$28,000 is reported as a cash inflow from investing activities in the statement of cash flows.

Analyze Change in Accumulated Depreciation

Java's accumulated depreciation increased \$10,000 during 2005. Accumulated depreciation increases when depreciation expense is recorded. Java's 2005 depreciation expense was \$10,000, so the total change in accumulated depreciation is the result of the recording of depreciation expense. As previously discussed, there is no cash flow related to the recording of depreciation expense, and we have previously adjusted for this expense in our computation of net cash flows from operating activities.

Analyze Change in Patent

We see from the comparative balance sheets that Java had an increase of \$60,000 in a patent. The increase means that a patent was acquired, and the additional data indicate that common stock was issued to obtain a patent. This event is a noncash investing (acquiring a patent) and financing (issuing common stock) transaction that must be disclosed as supplementary information to the statement of cash flows.

BUSINESS INSIGHT Starbucks' Investing Activities

Starbucks used \$499.258 million cash for investing activities in 2003. Of this, \$54 million (\$180.687 million + \$88.889 million – \$323.331 million) is related to the purchase of securities. Investing activities are not necessarily related to operating activities (such as purchases of PPE assets). Starbucks also spent \$69.928 million on the purchase of Seattle Coffee; which is the cash portion of the acquisition cost. It might also have issued debt and stock to finance this acquisition, which would be excluded from this statement and would be identified as noncash financing and investing activities in a footnote. Starbucks invested \$357.282 million in property, plant, and equipment (PPE). These expenditures might have been for owned property or for leasehold improvements on leased property. It also spent \$18 million (\$28.966 million – \$47.259 million) on other investments.

■ CASH FLOWS FROM FINANCING ACTIVITIES

Analyze Remaining Liabilities and Equity

Financing activities cause changes in liability and stockholders' equity accounts. Usually the accounts affected are noncurrent accounts such as bonds payable and common stock, although a current liability such

as short-term notes payable can also be affected. To determine the cash flows from financing activities, *we analyze changes in all liability and stockholders' equity accounts that were not used in computing net cash flow from operating activities.* Our objective is to identify any financing cash flows related to these changes.

Java House Case Illustration

Analyze Change in Common Stock

Java's common stock increased \$70,000 during 2005. Common stock increases when shares of stock are issued. As noted in discussing the patent increase, common stock with a \$60,000 par value was issued in exchange for a patent. This event is disclosed as a noncash investing and financing transaction. The other \$10,000 increase in common stock, as noted in the additional data, resulted from an issuance of stock for cash. Issuing common stock is a financing activity, so a \$10,000 cash inflow from a stock issuance appears as a financing activity in the statement of cash flows.

Analyze Change in Retained Earnings

Retained earnings grew from \$56,000 to \$75,000 during 2005—a \$19,000 increase. This increase is the net result of Java's \$32,000 of net income (which increased retained earnings) and a \$13,000 cash dividend (which decreased retained earnings). Because every item in Java's income statement was considered in computing the net cash provided by operating activities, only the cash dividend remains to be considered. Paying a cash dividend is a financing activity. Thus, a \$13,000 cash dividend appears as a cash outflow from financing activities in the statement of cash flows. We have now completed the analysis of all of Java's noncash balance sheet accounts and can prepare the 2005 statement of cash flows. Exhibit B.5 shows this statement.

If there are cash inflows and outflows from similar types of investing and financing activities, the inflows and outflows are reported separately (rather than reporting only the net difference). For example, proceeds from the sale of plant assets are reported separately from outlays made to acquire plant assets. Similarly, funds borrowed are reported separately from debt repayments, and proceeds from issuing stock are reported separately from outlays to acquire treasury stock.

BUSINESS INSIGHT Starbucks' Financing Activities

Starbucks received cash inflows of \$31.5 million (\$107.183 million – \$75.710 million) from issuance of common stock, net of repurchases. Only stock issued for cash is reflected in the statement of cash flows. Stock issued in connection with acquisitions is not reflected because it does not involve cash. Issuance of stock is often related to the exercise of employee stock options, and companies frequently repurchase stock to offset the dilution. Starbucks also reports a cash outflow of approximately \$0.7 million relating to the repayment of long-term debt. The net effect is an increase in cash of \$30.8 million from financing activities.

SUPPLEMENTAL DISCLOSURES FOR INDIRECT METHOD

When the indirect method is used in the statement of cash flows, three separate disclosures are required: (1) two specific operating cash outflows—cash paid for interest and cash paid for income taxes, (2) a schedule or description of all noncash investing and financing transactions, and (3) the firm's policy for determining which highly liquid, short-term investments are treated as cash equivalents. A firm's policy regarding cash equivalents is placed in the financial statement notes. The other two separate disclosures are reported either in the notes or at the bottom of the statement of cash flows.

Java House Case Illustration

Java House incurred no interest cost during 2005. It did pay income taxes. Our discussion of the \$2,000 change in income tax payable during 2005 revealed that the increase meant that cash tax payments were

less than income tax expense by the amount of the increase. Income tax expense was \$11,000, so the cash paid for income taxes was \$2,000 less than \$11,000, or \$9,000.

Java House did have one noncash investing and financing event during 2005: the issuance of common stock to acquire a patent. This event, as well as the cash paid for income taxes, is disclosed as supplemental information to the statement of cash flows in Exhibit B.5.

EXHIBIT B.5 ■ Statement of Cash Flows for Indirect Method with Supplemental Disclosures

JAVA HOUSE Statement of Cash Flows For Year Ended December 31, 2005		
Net cash flow from operating activities		
Net income	\$32,000	
Add (deduct) items to convert net income to cash basis		
Depreciation	10,000	
Gain on sale of land	(8,000)	
Accounts receivable increase	(5,000)	
Inventory decrease	6,000	
Prepaid insurance increase	(13,000)	
Accounts payable decrease	(9,000)	
Income tax payable increase	<u>2,000</u>	
Net cash provided by operating activities		\$15,000
Cash flows from investing activities		
Purchase of stock investments	(15,000)	
Sale of land	<u>28,000</u>	
Net cash provided by investing activities		13,000
Cash flows from financing activities		
Issuance of common stock	10,000	
Payment of dividends	<u>(13,000)</u>	
Net cash used by financing activities		<u>(3,000)</u>
Net increase in cash		25,000
Cash at beginning of year		<u>10,000</u>
Cash at end of year		<u>\$35,000</u>
Supplemental Information		
Supplemental cash flow disclosure		
Cash paid for income taxes		\$ 9,000
Schedule of noncash investing and financing activities		
Issuance of common stock to acquire patent		\$60,000

Ratio Analyses of Cash Flows

Data from the statement of cash flows enter into various financial ratios. Two such ratios are the operating cash flow to current liabilities ratio and the operating cash flow to capital expenditures ratio.

Operating Cash Flow to Current Liabilities Ratio

Two measures previously introduced—the current ratio and the quick ratio—emphasize the relation of current assets to current liabilities in an attempt to measure the ability of the firm to liquidate current liabilities when they become due. The **operating cash flow to current liabilities ratio** is another measure of the ability to liquidate current liabilities and is calculated as follows:

$$\text{Operating Cash Flow to Current Liabilities} = \text{Net Cash Flow from Operating Activities} / \text{Average Current Liabilities}$$

Net cash flow from operating activities is obtained from the statement of cash flows; it represents the excess amount of cash derived from operations during the year after deducting working capital needs and

payments required on current liabilities. The denominator is the average of the beginning and ending current liabilities for the year.

To illustrate, the following amounts are taken from the 2004 financial statements for **Gannett Co., Inc.**, a diversified news and information company that publishes *USA Today*:

Net cash flow from operating activities	\$1,586 million
Current liabilities at beginning of the year	962 million
Current liabilities at end of the year	1,005 million

Its operating cash flow to current liabilities ratio of 1.61 is computed as follows:

$$\$1,586 / [(\$962 + \$1,005) / 2] = 1.61$$

Gannett's operating cash flow to current liabilities ratio for the preceding year was 1.54. The higher this ratio, the stronger is a firm's ability to settle current liabilities as they come due. The increase in Gannett's ratio from 1.54 to 1.61 is favorable. A ratio of 0.5 is considered a good ratio so Gannett's ratio of 1.61 is interpreted as strong.

Operating Cash Flow to Capital Expenditures Ratio

To remain competitive, an entity must be able to replace, and expand when appropriate, its property, plant, and equipment. A ratio that helps assess a firm's ability to do this from internally generated cash flow is the **operating cash flow to capital expenditures ratio**, which is computed as follows:

$$\text{Operating Cash Flow to Capital Expenditures} = \text{Net Cash Flow from Operating Activities} / \text{Annual Capital Expenditures}$$

The numerator in this ratio comes from the first section of the statement of cash flows—the section reporting the net cash flow from operating activities. Information for the denominator can be found in one or more places in the financial statements and related disclosures. Data on capital expenditures are part of the required industry segment disclosures in notes to the financial statements. Capital expenditures are often also shown in the investing activities section of the statement of cash flows. Also, capital expenditures often appear in the comparative selected financial data presented as supplementary information to the financial statements. Finally, management's discussion and analysis of the statements commonly identify the annual capital expenditures.

A ratio in excess of 1.0 means that the firm's current operating activities are providing cash in excess of the amount needed to provide the desired level of plant capacity and would normally be considered a sign of financial strength. This ratio is also viewed as an indicator of long-term solvency—a ratio exceeding 1.0 means that there is operating cash flow in excess of capital needs that can then be used to repay outstanding long-term debt.

The interpretation of this ratio for a firm is influenced by its trend in recent years, the ratio size being achieved by other firms in the same industry, and the stage of the firm's life cycle. A firm in the early stages of its life cycle when periods of rapid expansion occur, is expected to experience a lower ratio than a firm in the mature stage of its life cycle when maintenance of plant capacity is more likely than expansion of capacity.

To illustrate the ratio's computation, **Abbott Laboratories** (a manufacturer of pharmaceutical and other health care products) reported capital expenditures in a recent year of \$1,247 million. In the same year, Abbott's net cash flow from operating activities was \$3,746 million. Abbott's operating cash flow to capital expenditures ratio for that year is \$3,746 million/\$1,247 million = 3.0. Following are recent operating cash flow to capital expenditures ratios for several companies:

Colgate-Palmolive (consumer grocery products)	5.85
Lockheed Martin (aerospace)	2.63
Verizon Communications (telecommunications)	1.89
Harley-Davidson (motorcycle manufacturer)	4.12
Home Depot (home products)	1.87

APPENDIX-END REVIEW

Part A

1. Which of the following is not disclosed in a statement of cash flows?
 - a. A transfer of cash to a cash equivalent investment
 - b. The amount of cash at year-end
 - c. Cash outflows from investing activities during the period
 - d. Cash inflows from financing activities during the period
2. Which of the following events appear in the cash flows from investing activities section of the statement of cash flows?
 - a. Cash received as interest
 - b. Cash received from issuance of common stock
 - c. Cash purchase of equipment
 - d. Cash payment of dividends
3. Which of the following events appear in the cash flows from financing activities section of the statement of cash flows?
 - a. Cash purchase of equipment
 - b. Cash purchase of bonds issued by another company
 - c. Cash received as repayment for funds loaned
 - d. Cash purchase of treasury stock
4. Tyler Company has a net income of \$49,000 and the following related items:

Depreciation expense	\$ 5,000
Accounts receivable increase	2,000
Inventory decrease	10,000
Accounts payable decrease	4,000

Using the indirect method, what is Tyler's net cash flow from operations?

- a. \$42,000 b. \$46,000 c. \$58,000 d. \$38,000

Solution

1. a 2. c 3. d 4. c

Part B

Espresso Royale's income statement and comparative balance sheets follow:

EXPRESSO ROYALE Income Statement For Year Ended December 31, 2005		
Sales		\$385,000
Dividend income		<u>5,000</u>
		390,000
Cost of goods sold	\$233,000	
Wages expense	82,000	
Advertising expense	10,000	
Depreciation expense	11,000	
Income tax expense	17,000	
Loss on sale of investments	<u>2,000</u>	<u>355,000</u>
Net income		<u><u>\$ 35,000</u></u>

EXPRESSO ROYALE		
Balance Sheets		
	Dec. 31, 2005	Dec. 31, 2004
Assets		
Cash	\$ 8,000	\$ 12,000
Accounts receivable	22,000	28,000
Inventory	94,000	66,000
Prepaid advertising	12,000	9,000
Long-term investments—Available-for-sale	30,000	41,000
Fair value adjustment to investments	—	(1,000)
Plant assets	178,000	130,000
Accumulated depreciation	(72,000)	(61,000)
Total assets	<u>\$272,000</u>	<u>\$224,000</u>
Liabilities and Equity		
Accounts payable	\$ 27,000	\$ 14,000
Wages payable	6,000	2,500
Income tax payable	3,000	4,500
Common stock	139,000	125,000
Retained earnings	97,000	79,000
Unrealized loss on investments	—	(1,000)
Total liabilities and equity	<u>\$272,000</u>	<u>\$224,000</u>

Cash dividends of \$17,000 were declared and paid during 2005. Plant assets were purchased for cash in 2005, and, later in the year, additional common stock was issued for cash. Investments costing \$11,000 were sold for cash at a \$2,000 loss in 2005; an unrealized loss of \$1,000 on these investments had been recorded in 2004 (at December 31, 2005, the cost and fair value of unsold investments are equal).

Required

- a. Compute the change in cash that occurred during 2005.
- b. Prepare a 2005 statement of cash flows using the indirect method.

Solution

- a. \$8,000 ending balance – \$12,000 beginning balance = \$4,000 decrease in cash
- b. (1) Use the indirect method to determine the net cash flow from operating activities.
 - Adjustments to convert Espresso Royale's net income of \$35,000 to a net cash provided by operating activities of \$38,000 are shown in the following statement of cash flows.
- (2) Analyze changes in remaining noncash asset (and contra asset) accounts to determine cash flows from investing activities.
 - Long-Term Investments: \$11,000 decrease resulted from sale of investments for cash at a \$2,000 loss. Cash received from sale of investments = \$9,000 (\$11,000 cost – \$2,000 loss).
 - Fair Value Adjustment to Investments: \$1,000 decrease resulted from the elimination of this account balance (and the Unrealized Loss of Investments) at the end of 2005. No cash flow effect.
 - Plant Assets: \$48,000 increase resulted from purchase of plant assets for cash. Cash paid to purchase plant assets = \$48,000.
 - Accumulated Depreciation: \$11,000 increase resulted from the recording of 2005 depreciation. No cash flow effect.
- (3) Analyze changes in remaining liability and stockholders' equity accounts to determine cash flows from financing activities.
 - Common Stock: \$14,000 increase resulted from the issuance of stock for cash. Cash received from issuance of common stock = \$14,000.
 - Retained Earnings: \$18,000 increase resulted from net income of \$35,000 and dividend declaration of \$17,000. Cash dividends paid = \$17,000.

- Unrealized Loss on Investments: \$1,000 decrease resulted from the elimination of this account balance (and the Fair Value Adjustment to Investments) at the end of 2005. No cash flow effect.

The statement of cash flows follows:

EXPRESSO ROYALE Statement of Cash Flows For Year Ended December 31, 2005		
Net cash flow from operating activities		
Net income	\$35,000	
Add (deduct) items to convert net income to cash basis		
Depreciation	11,000	
Loss on sale of investments	2,000	
Accounts receivable decrease	6,000	
Inventory increase	(28,000)	
Prepaid advertising increase	(3,000)	
Accounts payable increase	13,000	
Wages payable increase	3,500	
Income tax payable decrease	<u>(1,500)</u>	
Net cash provided by operating activities		\$38,000
Cash flows from investing activities		
Sale of investments	9,000	
Purchase of plant assets	<u>(48,000)</u>	
Net cash used by investing activities		(39,000)
Cash flows from financing activities		
Issuance of common stock	14,000	
Payment of dividends	<u>(17,000)</u>	
Net cash used by financing activities		<u>(3,000)</u>
Net decrease in cash		(4,000)
Cash at beginning of year		<u>12,000</u>
Cash at end of year		<u>\$ 8,000</u>

APPENDIX B1

Direct Method Reporting of Statement of Cash Flows

To prepare a statement of cash flows, we need a firm's income statement, comparative balance sheets, and some additional data taken from the accounting records. Exhibit B.2 presents this information for Java House. We use these data to prepare Java's 2005 statement of cash flows using the direct method. Java's statement of cash flows explains the \$25,000 increase in cash that occurred during 2005 (from \$10,000 to \$35,000) by classifying the firm's cash flows into operating, investing, and financing categories. To get the information to construct the statement, we do the following:

1. **Use the direct method to determine individual cash flows from operating activities.** We use changes that occurred during 2005 in various current asset and current liability accounts.
2. **Determine cash flows from investing activities.** We do this by analyzing changes in noncurrent asset accounts.
3. **Determine cash flows from financing activities.** We do this by analyzing changes in liability and stockholders' equity accounts.

The net cash flows from investing and financing are identical to those prepared using the indirect method. Only the format of the net cash flows from operating activities differs between the two methods, not the total amount of cash generated from operating activities.

■ CASH FLOWS FROM OPERATING ACTIVITIES

The **direct method** presents net cash flow from operating activities by showing the major categories of operating cash receipts and payments. The operating cash receipts and payments are usually determined by converting the accrual revenues and expenses to corresponding cash amounts. It is efficient to do it this way because the accrual revenues and expenses are readily available in the income statement.

Convert Revenues and Expenses to Cash Flows

Exhibit B.6 summarizes the procedures for converting individual income statement items to corresponding cash flows from operating activities.

EXHIBIT B.6 ■ Adjustments to Convert Income Statement Items to Operating Activity Cash Flows

Income Statement Item	Adjustment	Operating Activity Cash Flow
Sales	+ Decrease in accounts receivable <i>or</i> – Increase in accounts receivable	= Receipts from customers
Cost of goods sold	+ Increase in inventory <i>or</i> – Decrease in inventory and + Decrease in accounts payable <i>or</i> – Increase in accounts payable	= Payments for merchandise
Operating expenses Interest expense Income tax expense (excluding items listed below)	+ Increase in related prepaid expense <i>or</i> – Decrease in related prepaid expense and + Decrease in related accrued liability <i>or</i> – Increase in related accrued liability	= Payments for expenses
Depreciation expense Depletion expense Amortization expense	– Depreciation expense – Depletion expense – Amortization expense	= 0
Gains (investing and financing) Losses (investing and financing)	Exclude: Not related to operating activities	= 0

Java House Case Illustration

We next explain and illustrate the process of converting Java House's 2005 revenues and expenses to corresponding cash flows from operating activities under the direct method.

Convert Sales to Cash Received from Customers

During 2005, accounts receivable increased \$5,000. This increase means that during 2005, cash collections on account (which decrease accounts receivable) were less than credit sales (which increase accounts receivable). We compute cash received from customers as follows (this computation assumes that no accounts were written off as uncollectible during the period):

Sales	\$250,000
– Increase in accounts receivable	<u>(5,000)</u>
= Cash received from customers	<u><u>\$245,000</u></u>

Convert Cost of Goods Sold to Cash Paid for Merchandise Purchased

The conversion of cost of goods sold to cash paid for merchandise purchased is a two-step process. First, cost of goods sold is adjusted for the change in inventory to determine the amount of purchases during the year. Then the purchases amount is adjusted for the change in accounts payable to derive the cash paid for merchandise purchased. Inventory decreased from \$60,000 to \$54,000 during 2005. This \$6,000 decrease indicates that the cost of goods sold exceeded the cost of goods purchased during the year. The year's purchases amount is computed as follows:

Cost of goods sold	\$148,000
– Decrease in inventory	<u>(6,000)</u>
= Purchases	<u><u>\$142,000</u></u>

During 2005, accounts payable decreased \$9,000. This decrease reflects the fact that cash payments for merchandise purchased on account (which decrease accounts payable) exceeded purchases on account (which increase accounts payable). The cash paid for merchandise purchased, therefore, is computed as follows:

Purchases	\$142,000
+ Decrease in accounts payable	<u>9,000</u>
= Cash paid for merchandise purchased	<u><u>\$151,000</u></u>

Convert Wages Expense to Cash Paid to Employees

No adjustment to wages expense is needed. The absence of any beginning or ending accrued liability for wages payable means that wages expense and cash paid to employees as wages are the same amount: \$52,000.

Convert Insurance Expense to Cash Paid for Insurance

Prepaid insurance increased \$13,000 during 2005. The \$13,000 increase reflects the excess of cash paid for insurance during 2005 (which increases prepaid insurance) over the year's insurance expense (which decreases prepaid insurance). Starting with insurance expense the cash paid for insurance is computed as follows:

Insurance expense	\$ 5,000
+ Increase in prepaid insurance	<u>13,000</u>
= Cash paid for insurance	<u><u>\$18,000</u></u>

Eliminate Depreciation Expense and Other Noncash Operating Expenses

Depreciation expense is a noncash expense. Because it does not represent a cash payment, depreciation expense is eliminated as we convert accrual expense amounts to the corresponding amounts of cash payments. If Java House had any amortization expense or depletion expense, it would eliminate them for the same reason. The amortization of an intangible asset and the depletion of a natural resource are noncash expenses.

Convert Income Tax Expense to Cash Paid for Income Taxes

The increase in income tax payable from \$3,000 at December 31, 2004, to \$5,000 at December 31, 2005, means that 2005's income tax expense (which increases income tax payable) was \$2,000 more than 2005's tax payments (which

decrease income tax payable). If we start with income tax expense, then we calculate cash paid for income taxes as follows:

Income tax expense	\$11,000
– Increase in income tax payable	<u>(2,000)</u>
= Cash paid for income taxes	<u>\$ 9,000</u>

Omit Gains and Losses Related to Investing and Financing Activities

The income statement may contain gains and losses related to investing or financing activities. Examples include gains and losses from the sale of plant assets and gains and losses from the retirement of bonds payable. Because these gains and losses are not related to operating activities, we omit them as we convert income statement items to various cash flows from operating activities. The cash flows relating to these gains and losses are reported in the investing activities or financing activities sections of the statement of cash flows. Java House had an \$8,000 gain from the sale of land in 2005. This gain resulted from an investing activity; no related cash flow appears within the operating activities category.

We have now applied the adjustments to convert each accrual revenue and expense to the corresponding operating cash flow. We use these individual cash flows to prepare the operating activities section of the statement of cash flows, see Exhibit B.7

EXHIBIT B.7 ■ Direct Method Operating Section of Statement of Cash Flows

Cash received from customers		\$245,000
Cash paid for merchandise purchased	\$151,000	
Cash paid to employees	52,000	
Cash paid for insurance	18,000	
Cash paid for income taxes	<u>9,000</u>	<u>230,000</u>
Net cash provided by operating activities		<u>\$ 15,000</u>

■ CASH FLOWS FROM INVESTING AND FINANCING

The reporting of investing and financing activities in the statement of cash flows is identical under the indirect and direct methods. Thus, we simply refer to the previous sections in Appendix B for explanations.

Supplemental Disclosures

When the direct method is used for the statement of cash flows, three separate disclosures are required: (1) a reconciliation of net income to the net cash flow from operating activities, (2) a schedule or description of all noncash investing and financing transactions, and (3) the firm's policy for determining which highly liquid, short-term investments are treated as cash equivalents. The firm's policy regarding cash equivalents is placed in the financial statement notes. The other two separate disclosures are reported either in the notes or at the bottom of the statement of cash flows.

The required reconciliation is essentially the indirect method of computing cash flow from operating activities. *Thus, when the direct method is used in the statement of cash flows, the indirect method is a required separate disclosure.* We discussed the indirect method earlier in this appendix.

Java House did have one noncash investing and financing event during 2005: the issuance of common stock to acquire a patent. This event is disclosed as supplemental information to the statement of cash flows in Exhibit B.5.

■ APPENDIX-END REVIEW ■

Expresso Royale's income statement and comparative balance sheets follow:

EXPRESSO ROYALE Income Statement For Year Ended December 31, 2005		
Sales		\$385,000
Dividend income		5,000
		<u>390,000</u>
Cost of goods sold	\$233,000	
Wages expense	82,000	
Advertising expense	10,000	
Depreciation expense	11,000	
Income tax expense	17,000	
Loss on sale of investments	2,000	
Net income		<u>355,000</u> <u>\$ 35,000</u>

EXPRESSO ROYALE Balance Sheets		
	Dec. 31, 2005	Dec. 31, 2004
Assets		
Cash	\$ 8,000	\$ 12,000
Accounts receivable	22,000	28,000
Inventory	94,000	66,000
Prepaid advertising	12,000	9,000
Long-term investments—Available-for-sale	30,000	41,000
Fair value adjustment to investments	—	(1,000)
Plant assets	178,000	130,000
Accumulated depreciation	(72,000)	(61,000)
Total assets	<u>\$272,000</u>	<u>\$224,000</u>
Liabilities and Equity		
Accounts payable	\$ 27,000	\$ 14,000
Wages payable	6,000	2,500
Income tax payable	3,000	4,500
Common stock	139,000	125,000
Retained earnings	97,000	79,000
Unrealized loss on investments	—	(1,000)
Total liabilities and equity	<u>\$272,000</u>	<u>\$224,000</u>

Cash dividends of \$17,000 were declared and paid during 2005. Plant assets were purchased for cash in 2005, and later in the year, additional common stock was issued for cash. Investments costing \$11,000 were sold for cash at a \$2,000 loss in 2005; an unrealized loss of \$1,000 on these investments had been recorded in 2004 (at December 31, 2005, the cost and fair value of unsold investments are equal).

Required

- Compute the change in cash that occurred during 2005.
- Prepare a 2005 statement of cash flows using the direct method.

Solution

- \$8,000 ending balance – \$12,000 beginning balance = \$4,000 decrease in cash
- (1) Use the direct method to determine the individual cash flows from operating activities.
 - \$385,000 sales + \$6,000 accounts receivable decrease = \$391,000 cash received from customers
 - \$5,000 dividend income = \$5,000 cash received as dividends

- \$233,000 cost of goods sold + \$28,000 inventory increase – \$13,000 accounts payable increase = \$248,000 cash paid for merchandise purchased
 - \$82,000 wages expense – \$3,500 wages payable increase = \$78,500 cash paid to employees
 - \$10,000 advertising expense + \$3,000 prepaid advertising increase = \$13,000 cash paid for advertising
 - \$17,000 income tax expense + \$1,500 income tax payable decrease = \$18,500 cash paid for income taxes
- (2) Analyze changes in remaining noncash asset (and contra asset) accounts to determine cash flows from investing activities.
- Long-term investments: \$11,000 decrease resulted from sale of investments for cash at a \$2,000 loss. Cash received from sale of investments = \$9,000 (\$11,000 cost – \$2,000 loss).
 - Fair value adjustment to investments: \$1,000 decrease resulted from the elimination of this account balance (and the unrealized loss on investments) at the end of 2005. No cash flow effect.
 - Plant assets: \$48,000 increase resulted from purchase of plant assets for cash. Cash paid to purchase plant assets = \$48,000.
 - Accumulated depreciation: \$11,000 increase resulted from the recording of 2005 depreciation. No cash flow effect.
- (3) Analyze changes in remaining liability and stockholders' equity accounts to determine cash flows from financing activities.
- Common stock: \$14,000 increase resulted from the issuance of stock for cash. Cash received from issuance of common stock = \$14,000.
 - Retained earnings: \$18,000 increase resulted from net income of \$35,000 and dividend declaration of \$17,000. Cash dividends paid = \$17,000.
 - Unrealized loss on investments: \$1,000 decrease resulted from the elimination of this account balance (and the fair value adjustment to investments) at the end of 2005. No cash flow effect.

The statement of cash flows under the direct method follows:

EXPRESSO ROYALE Statement of Cash Flows For Year Ended December 31, 2005		
Cash flows from operating activities		
Cash received from customers	\$391,000	
Cash received as dividends	5,000	
Cash paid for merchandise purchased	(248,000)	
Cash paid to employees	(78,500)	
Cash paid for advertising	(13,000)	
Cash paid for income taxes	(18,500)	
Net cash provided by operating activities		\$ 38,000
Cash flows from investing activities		
Sale of investments	9,000	
Purchase of plant assets	(48,000)	
Net cash used by investing activities		(39,000)
Cash flows from financing activities		
Issuance of common stock	14,000	
Payment of dividends	(17,000)	
Net cash used by financing activities		(3,000)
Net decrease in cash		(4,000)
Cash at beginning of year		(2,000)
Cash at end of year		<u>\$ 8,000</u>

G U I D A N C E A N S W E R S

MANAGERIAL DECISION

You Are the Securities Analyst

Many companies, but not all, treat customers' notes receivable as an investing activity. In 2005, the SEC became concerned with this practice and issued letters to a number of companies objecting to this accounting classification. "Presenting cash receipts from receivables generated by the sale of inventory as investing activities in the company's consolidated statements of cash flows is not in accordance with GAAP," wrote the chief accountant for the SEC's division of corporation finance, in her letter to the companies ("Little Campus Lab Shakes Big Firms—Georgia Tech Crew's Report Spurs Change in Accounting for Operating Cash Flow," March 1, 2005, *The Wall Street Journal*). The SEC's position is that these notes receivable are an operating activity and analysts are certainly justified in treating them likewise. Concerning the sale of receivables, so long as the separate entity (a Trust in this case) is properly structured, the transaction can be treated as a sale (rather than require consolidation) with a consequent reduction in receivables and a gain or loss on the sale recorded in the income statement. Many analysts treat this as a financing activity and argue that the cash inflow should not be regarded as an increase in operating cash flows. Bottom line: many argue that operating cash flows do not increase as a result of these two transactions and analysts should adjust the statement of cash flows to properly classify the financing of receivables as an operating activity and the sale of receivables as a financing activity.

Superscript ^{B1} denotes assignments based on Appendix B1.

DISCUSSION QUESTIONS

- Q B-1.** What is the definition of *cash equivalents*? Give three examples of cash equivalents.
- Q B-2.** Why are cash equivalents included with cash in a statement of cash flows?
- Q B-3.** What are the three major types of activities classified on a statement of cash flows? Give an example of a cash inflow and a cash outflow in each classification.
- Q B-4.** In which of the three activity categories of a statement of cash flows would each of the following items appear? Indicate for each item whether it represents a cash inflow or a cash outflow:
- Cash purchase of equipment.
 - Cash collection on loans.
 - Cash dividends paid.
 - Cash dividends received.
 - Cash proceeds from issuing stock.
 - Cash receipts from customers.
 - Cash interest paid.
 - Cash interest received.
- Q B-5.** Traverse Company acquired a \$3,000,000 building by issuing \$3,000,000 worth of bonds payable. In terms of cash flow reporting, what type of transaction is this? What special disclosure requirements apply to a transaction of this type?
- Q B-6.** Why are noncash investing and financing transactions disclosed as supplemental information to a statement of cash flows?
- Q B-7.** Why is a statement of cash flows a useful financial statement?
- Q B-8.** What is the difference between the direct method and the indirect method of presenting net cash flow from operating activities?
- Q B-9.** In determining net cash flow from operating activities using the indirect method, why must we add depreciation back to net income? Give an example of another item that is added back to net income under the indirect method.
- Q B-10.** Vista Company sold for \$98,000 cash land originally costing \$70,000. The company recorded a gain on the sale of \$28,000. How is this event reported in a statement of cash flows using the indirect method?
- Q B-11.** A firm uses the indirect method. Using the following information, what is its net cash flow from operating activities?

Net income	\$88,000
Accounts receivable decrease	13,000
Inventory increase	9,000
Accounts payable decrease	3,500
Income tax payable increase	1,500
Depreciation expense	6,000

- Q B-12.** What separate disclosures are required for a company that reports a statement of cash flows using the indirect method?
- Q B-13.** If a business had a net loss for the year, under what circumstances would the statement of cash flows show a positive net cash flow from operating activities?
- Q B-14.^{B1}** A firm is converting its accrual revenues to corresponding cash amounts using the direct method. Sales on the income statement are \$925,000. Beginning and ending accounts receivable on the balance sheet are \$58,000 and \$44,000, respectively. What is the amount of cash received from customers?
- Q B-15.^{B1}** A firm reports \$86,000 wages expense in its income statement. If beginning and ending wages payable are \$3,900 and \$2,800, respectively, what is the amount of cash paid to employees?
- Q B-16.^{B1}** A firm reports \$43,000 advertising expense in its income statement. If beginning and ending prepaid advertising are \$6,000 and \$7,600, respectively, what is the amount of cash paid for advertising?
- Q B-17.^{B1}** Rusk Company sold equipment for \$5,100 cash that had cost \$35,000 and had \$29,000 of accumulated depreciation. How is this event reported in a statement of cash flows using the direct method?
- Q B-18.^{B1}** What separate disclosures are required for a company that reports a statement of cash flows using the direct method?
- Q B-19.** How is the operating cash flow to current liabilities ratio calculated? Explain its use.
- Q B-20.** How is the operating cash flow to capital expenditures ratio calculated? Explain its use.
- Q B-21.** The statement of cash flows provides information that may be useful in predicting future cash flows, evaluating financial flexibility, assessing liquidity, and identifying financing needs. It is not, however, the best financial statement for learning about a firm's financial performance during a period; information about periodic financial performance is provided by the income statement. Two basic principles—the revenue recognition principle and the matching concept—work to distinguish the income statement from the statement of cash flows. (a) Define the revenue recognition principle and the matching concept. (b) Briefly explain how these two principles work to make the income statement a better report on periodic financial performance than the statement of cash flows.

■ MINI EXERCISES

- M B-22. Classification of Cash Flows** For each of the items below, indicate whether the cash flow relates to an operating activity, an investing activity, or a financing activity.
- Cash receipts from customers for services rendered.
 - Sale of long-term investments for cash.
 - Acquisition of plant assets for cash.
 - Payment of income taxes.
 - Bonds payable issued for cash.
 - Payment of cash dividends declared in previous year.
 - Purchase of short-term investments (not cash equivalents) for cash.
- M B-23. Classification of Cash Flows** For each of the items below, indicate whether it is (1) a cash flow from an operating activity, (2) a cash flow from an investing activity, (3) a cash flow from a financing activity, (4) a noncash investing and financing activity, or (5) none of the above.
- Paid cash to retire bonds payable at a loss.
 - Received cash as settlement of a lawsuit.
 - Acquired a patent in exchange for common stock.
 - Received advance payments from customers on orders for custom-made goods.
 - Gave large cash contribution to local university.
 - Invested cash in 60-day commercial paper (a cash equivalent).

M B-24. Net Cash Flow from Operating Activities (Indirect Method) The following information was obtained from Galena Company's comparative balance sheets. Assume that Galena Company's 2005 income statement showed depreciation expense of \$8,000, a gain on sale of investments of \$9,000, and a net income of \$45,000. Calculate the net cash flow from operating activities using the indirect method.

	Dec. 31, 2005	Dec. 31, 2004
Cash	\$ 19,000	\$ 9,000
Accounts receivable	44,000	35,000
Inventory	55,000	49,000
Prepaid rent	6,000	8,000
Long-term investments	21,000	34,000
Plant assets	150,000	106,000
Accumulated depreciation	40,000	32,000
Accounts payable	24,000	20,000
Income tax payable	4,000	6,000
Common stock	121,000	92,000
Retained earnings	106,000	91,000

M B-25. Net Cash Flow from Operating Activities (Indirect Method) Cairo Company had a \$21,000 net loss from operations for 2005. Depreciation expense for 2005 was \$8,600 and a 2005 cash dividend of \$6,000 was declared and paid. Balances of the current asset and current liability accounts at the beginning and end of 2005 follow. Did Cairo Company's 2005 operating activities provide or use cash? Use the indirect method to determine your answer.

	Ending	Beginning
Cash	\$ 3,500	\$ 7,000
Accounts receivable	16,000	25,000
Inventory	50,000	53,000
Prepaid expenses	6,000	9,000
Accounts payable	12,000	8,000
Accrued liabilities	5,000	7,600

M B-26.^{B1} Operating Cash Flows (Direct Method) Calculate the cash flow for each of the following cases.

a. Cash paid for rent:

Rent expense	\$60,000
Prepaid rent, beginning year	10,000
Prepaid rent, end of year	8,000

b. Cash received as interest:

Interest income	\$16,000
Interest receivable, beginning year	3,000
Interest receivable, end of year	3,700

c. Cash paid for merchandise purchased:

Cost of goods sold	\$98,000
Inventory, beginning year	19,000
Inventory, end of year	22,000
Accounts payable, beginning year	11,000
Accounts payable, end of year	7,000

M B-27.^{B1} Operating Cash Flows (Direct Method) Howell Company's current year income statement reports the following:

Sales	\$825,000
Cost of goods sold	<u>550,000</u>
Gross profit	\$275,000

Howell's comparative balance sheets show the following (accounts payable relate to merchandise purchases):

	End of Year	Beginning of Year
Accounts receivable	\$ 71,000	\$60,000
Inventory	109,000	96,000
Prepaid expenses	3,000	8,000
Accounts payable	31,000	37,000

Compute Howell's current-year cash received from customers and cash paid for merchandise purchased.

EXERCISES

E B-28. Net Cash Flow from Operating Activities (Indirect Method) Lincoln Company owns no plant assets and reported the following income statement for the current year:

Sales		\$750,000
Cost of goods sold	\$470,000	
Wages expense	110,000	
Rent expense	42,000	
Insurance expense	<u>15,000</u>	<u>637,000</u>
Net income		<u>\$113,000</u>

Additional balance sheet information about the company follows:

	End of Year	Beginning of Year
Accounts receivable	\$54,000	\$49,000
Inventory	60,000	66,000
Prepaid insurance	8,000	7,000
Accounts payable	22,000	18,000
Wages payable	9,000	11,000

Use the information to calculate the net cash flow from operating activities under the indirect method.

E B-29. Statement of Cash Flows (Indirect Method) Use the following information about Lund Corporation for 2005 to prepare a statement of cash flows under the indirect method.

Accounts payable increase	\$ 9,000
Accounts receivable increase	4,000
Accrued liabilities decrease	3,000
Amortization expense	6,000
Cash balance, beginning of 2005	22,000
Cash balance, end of 2005	15,000
Cash paid as dividends	29,000
Cash paid to purchase land	90,000

(Continued on next page)

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Cash paid to retire bonds payable at par	\$60,000
Cash received from issuance of common stock	35,000
Cash received from sale of equipment	17,000
Depreciation expense	29,000
Gain on sale of equipment	4,000
Inventory decrease	13,000
Net income	76,000
Prepaid expenses increase	2,000

E B-30.^{B1} Operating Cash Flows (Direct Method) Calculate the cash flow for each of the following cases.

a. Cash paid for advertising:

Advertising expense	\$62,000
Prepaid advertising, beginning of year	11,000
Prepaid advertising, end of year	15,000

b. Cash paid for income taxes:

Income tax expense	\$29,000
Income tax payable, beginning of year	7,100
Income tax payable, end of year	4,900

c. Cash paid for merchandise purchased:

Cost of goods sold	\$180,000
Inventory, beginning of year	30,000
Inventory, end of year	25,000
Accounts payable, beginning of year	10,000
Accounts payable, end of year	12,000

E B-31.^{B1} Statement of Cash Flows (Direct Method) Use the following information about the 2005 cash flows of Mason Corporation to prepare a statement of cash flows under the direct method.

Cash balance, end of 2005	\$ 12,000
Cash paid to employees and suppliers	148,000
Cash received from sale of land	40,000
Cash paid to acquire treasury stock	10,000
Cash balance, beginning of 2005	16,000
Cash received as interest	6,000
Cash paid as income taxes	11,000
Cash paid to purchase equipment	89,000
Cash received from customers	194,000
Cash received from issuing bonds payable	30,000
Cash paid as dividends	16,000

E B-32.^{B1} Operating Cash Flows (Direct Method) Refer to the information in Exercise B-28. Calculate the net cash flow from operating activities using the direct method. Show a related cash flow for each revenue and expense.

E B-33. Investing and Financing Cash Flows During 2005, Paxon Corporation's long-term investments account (at cost) increased \$15,000, which was the net result of purchasing stocks costing \$80,000 and selling stocks costing \$65,000 at a \$6,000 loss. Also, its bonds payable account decreased \$40,000, the net result of issuing \$100,000 of bonds at \$103,000 and retiring bonds with a face value (and book value) of \$140,000 at a

\$9,000 gain. What items and amounts appear in the (a) cash flows from investing activities and (b) cash flows from financing activities sections of its 2005 statement of cash flows?

PROBLEMS

P B-34. Statement of Cash Flows (Indirect Method) Wolff Company's income statement and comparative balance sheets follow.

WOLFF COMPANY Income Statement For Year Ended December 31, 2005		
Sales		\$635,000
Cost of goods sold	\$430,000	
Wages expense	86,000	
Insurance expense	8,000	
Depreciation expense	17,000	
Interest expense	9,000	
Income tax expense	<u>29,000</u>	<u>579,000</u>
Net income		<u><u>\$ 56,000</u></u>

WOLFF COMPANY Balance Sheets		
	Dec. 31, 2005	Dec. 31, 2004
Assets		
Cash	\$ 11,000	\$ 5,000
Accounts receivable	41,000	32,000
Inventory	90,000	60,000
Prepaid insurance	5,000	7,000
Plant assets	250,000	195,000
Accumulated depreciation	<u>(68,000)</u>	<u>(51,000)</u>
Total assets	<u><u>\$329,000</u></u>	<u><u>\$248,000</u></u>
Liabilities and Stockholders' Equity		
Accounts payable	\$ 7,000	\$ 10,000
Wages payable	9,000	6,000
Income tax payable	7,000	8,000
Bonds payable	130,000	75,000
Common stock	90,000	90,000
Retained earnings	<u>86,000</u>	<u>59,000</u>
Total liabilities and equity	<u><u>\$329,000</u></u>	<u><u>\$248,000</u></u>

Cash dividends of \$29,000 were declared and paid during 2005. Also in 2005, plant assets were purchased for cash, and bonds payable were issued for cash. Bond interest is paid semiannually on June 30 and December 31. Accounts payable relate to merchandise purchases.

Required

- Compute the change in cash that occurred during 2005.
- Prepare a 2005 statement of cash flows using the indirect method.

P B-35. Statement of Cash Flows (Indirect Method) Arctic Company's income statement and comparative balance sheets follow.

ARCTIC COMPANY Income Statement For Year Ended December 31, 2005		
Sales		\$ 728,000
Cost of goods sold	\$534,000	
Wages expense	190,000	
Advertising expense	31,000	
Depreciation expense	22,000	
Interest expense	18,000	
Gain on sale of land	<u>(25,000)</u>	<u>770,000</u>
Net loss		<u><u>\$ (42,000)</u></u>

ARCTIC COMPANY Balance Sheets		
	Dec. 31, 2005	Dec. 31, 2004
Assets		
Cash	\$ 49,000	\$ 28,000
Accounts receivable	42,000	50,000
Inventory	107,000	113,000
Prepaid advertising	10,000	13,000
Plant assets	360,000	222,000
Accumulated depreciation	<u>(78,000)</u>	<u>(56,000)</u>
Total assets	<u><u>\$490,000</u></u>	<u><u>\$370,000</u></u>
Liabilities and Stockholders' Equity		
Accounts payable	\$ 17,000	\$ 31,000
Interest payable	6,000	—
Bonds payable	200,000	—
Common stock	245,000	245,000
Retained earnings	52,000	94,000
Treasury stock	<u>(30,000)</u>	<u>—</u>
Total liabilities and equity	<u><u>\$490,000</u></u>	<u><u>\$370,000</u></u>

During 2005, Arctic sold land for \$70,000 cash that had originally cost \$45,000. Arctic also purchased equipment for cash, acquired treasury stock for cash, and issued bonds payable for cash in 2005. Accounts payable relate to merchandise purchases.

Required

- Compute the change in cash that occurred during 2005.
- Prepare a 2005 statement of cash flows using the indirect method.

P B-36. Statement of Cash Flows (Indirect Method) Dair Company's income statement and comparative balance sheets follow.

DAIR COMPANY Income Statement For Year Ended December 31, 2005		
Sales		\$700,000
Cost of goods sold	\$440,000	
Wages and other operating expenses	95,000	
Depreciation expense	22,000	
Amortization expense	7,000	
Interest expense	10,000	
Income tax expense	36,000	
Loss on bond retirement	<u>5,000</u>	<u>615,000</u>
Net income		<u><u>\$ 85,000</u></u>

DAIR COMPANY		
Balance Sheets		
	Dec. 31, 2005	Dec. 31, 2004
Assets		
Cash	\$ 27,000	\$ 18,000
Accounts receivable	53,000	48,000
Inventory	103,000	109,000
Prepaid expenses	12,000	10,000
Plant assets	360,000	336,000
Accumulated depreciation	(87,000)	(84,000)
Intangible assets	43,000	50,000
Total assets	<u>\$511,000</u>	<u>\$487,000</u>
Liabilities and Stockholders' Equity		
Accounts payable	\$ 32,000	\$ 26,000
Interest payable	4,000	7,000
Income tax payable	6,000	8,000
Bonds payable	60,000	120,000
Common stock	252,000	228,000
Retained earnings	157,000	98,000
Total liabilities and equity	<u>\$511,000</u>	<u>\$487,000</u>

During 2005, the company sold for \$17,000 cash old equipment that had cost \$36,000 and had \$19,000 accumulated depreciation. Also in 2005, new equipment worth \$60,000 was acquired in exchange for \$60,000 of bonds payable, and bonds payable of \$120,000 were retired for cash at a loss. A \$26,000 cash dividend was declared and paid in 2005. Any stock issuances were for cash.

Required

- Compute the change in cash that occurred in 2005.
- Prepare a 2005 statement of cash flows using the indirect method.
- Prepare separate schedules showing (1) cash paid for interest and for income taxes and (2) noncash investing and financing transactions.

P B-37. Statement of Cash Flows (Indirect Method) Rainbow Company's income statement and comparative balance sheets follow.

RAINBOW COMPANY		
Income Statement		
For Year Ended December 31, 2005		
Sales		\$750,000
Dividend income		<u>15,000</u>
		765,000
Cost of goods sold	\$440,000	
Wages and other operating expenses	130,000	
Depreciation expense	39,000	
Patent amortization expense	7,000	
Interest expense	13,000	
Income tax expense	44,000	
Loss on sale of equipment	5,000	
Gain on sale of investments	<u>(10,000)</u>	668,000
Net income		<u>\$ 97,000</u>

RAINBOW COMPANY Balance Sheets		
	Dec. 31, 2005	Dec. 31, 2004
Assets		
Cash and cash equivalents	\$ 19,000	\$ 25,000
Accounts receivable	40,000	30,000
Inventory	103,000	77,000
Prepaid expenses	10,000	6,000
Long-term investments—Available-for-sale	—	50,000
Fair value adjustment to investments	—	7,000
Land	190,000	100,000
Buildings	445,000	350,000
Accumulated depreciation—Buildings	(91,000)	(75,000)
Equipment	179,000	225,000
Accumulated depreciation—Equipment	(42,000)	(46,000)
Patents	50,000	32,000
Total assets	<u>\$903,000</u>	<u>\$781,000</u>
Liabilities and Stockholders' Equity		
Accounts payable	\$ 20,000	\$ 16,000
Interest payable	6,000	5,000
Income tax payable	8,000	10,000
Bonds payable	155,000	125,000
Preferred stock (\$100 par value)	100,000	75,000
Common stock (\$5 par value)	379,000	364,000
Paid-in capital in excess of par value—Common	133,000	124,000
Retained earnings	102,000	55,000
Unrealized gain on investments	—	7,000
Total liabilities and equity	<u>\$903,000</u>	<u>\$781,000</u>

During 2005, the following transactions and events occurred:

- Sold long-term investments costing \$50,000 for \$60,000 cash. Unrealized gains totaling \$7,000 related to these investments had been recorded in earlier years. At year-end, the fair value adjustment and unrealized gain account balances were eliminated.
- Purchased land for cash.
- Capitalized an expenditure made to improve the building.
- Sold equipment for \$14,000 cash that originally cost \$46,000 and had \$27,000 accumulated depreciation.
- Issued bonds payable at face value for cash.
- Acquired a patent with a fair value of \$25,000 by issuing 250 shares of preferred stock at par value.
- Declared and paid a \$50,000 cash dividend.
- Issued 3,000 shares of common stock for cash at \$8 per share.
- Recorded depreciation of \$16,000 on buildings and \$23,000 on equipment.

Required

- Compute the change in cash and cash equivalents that occurred during 2005.
- Prepare a 2005 statement of cash flows using the indirect method.
- Prepare separate schedules showing (1) cash paid for interest and for income taxes and (2) noncash investing and financing transactions.

P B-38.^{B1} Statement of Cash Flows (Direct Method) Refer to the data for Wolff Company in Problem B-34.

Required

- Compute the change in cash that occurred during 2005.
- Prepare a 2005 statement of cash flows using the direct method.

P B-39.^{B1} Statement of Cash Flows (Direct Method) Refer to the data for Arctic Company in Problem B-35.

Required

- Compute the change in cash that occurred during 2005.
- Prepare a 2005 statement of cash flows using the direct method.

P B-40.^{B1} Statement of Cash Flows (Direct Method) Refer to the data for Dair Company in Problem B-36.

Required

- Compute the change in cash that occurred in 2005.
- Prepare a 2005 statement of cash flows using the direct method. Use one cash outflow for “cash paid for wages and other operating expenses.” Accounts payable relate to inventory purchases only.
- Prepare separate schedules showing (1) a reconciliation of net income to net cash flow from operating activities (see Exhibit B.4) and (2) noncash investing and financing transactions.

P B-41.^{B1} Statement of Cash Flows (Direct Method) Refer to the data for Rainbow Company in Problem B-37.

Required

- Compute the change in cash that occurred in 2005.
- Prepare a 2005 statement of cash flows using the direct method. Use one cash outflow for “cash paid for wages and other operating expenses.” Accounts payable relate to inventory purchases only.
- Prepare separate schedules showing (1) a reconciliation of net income to net cash flow from operating activities (see Exhibit B.4) and (2) noncash investing and financing transactions.

P B-42. Interpreting the Statement of Cash Flows Following is the statement of cash flows of [Amgen, Inc.](#)

Amgen, Inc.
(AMGN)

Year Ended December 31 (In millions)	2003	2002
Cash flows from operating activities		
Net income (loss)	\$ 2,259.5	\$(1,391.9)
Write-off of acquired in-process R&D	—	2,991.8
Depreciation and amortization	686.5	447.3
Tax benefits related to employee stock options	268.6	251.6
Deferred income taxes	(189.6)	174.7
Other noncash expenses	99.0	24.9
Cash provided by (used in) changes in operating assets and liabilities, net of acquisitions		
Trade receivables, net	(255.5)	(121.9)
Inventories	(167.7)	(101.7)
Other current assets	(32.8)	(5.2)
Accounts payable	74.0	11.0
Accrued liabilities	824.6	(31.8)
Net cash provided by operating activities	3,566.6	2,248.8
Cash flows from investing activities		
Purchases of property, plant, and equipment	(1,356.8)	(658.5)
Purchases of marketable securities	(5,320.3)	(2,952.8)
Proceeds from sales of marketable securities	3,338.6	1,621.5
Proceeds from maturities of marketable securities	370.8	778.2
Cash paid for Immunex, net of cash acquired	—	(1,899.0)
Proceeds from sale of Leukine® business	—	389.9
Purchase of certain rights from Roche	—	(137.5)
Other	(242.5)	(5.6)
Net cash used in investing activities	(3,210.2)	(2,863.8)
Cash flows from financing activities		
Issuance of zero-coupon convertible notes, net of issuance costs	—	2,764.7
Repayment of debt	(123.0)	—
Net proceeds from issuance of common stock upon exercise of employee stock options and in connection with employee stock purchase plan	529.0	427.8
Repurchases of common stock	(1,801.0)	(1,420.4)
Other	23.5	5.5
Net cash (used in) provided by financing activities	(1,371.5)	1,777.6
(Decrease) increase in cash and cash equivalents	(1,015.1)	1,162.6
Cash and cash equivalents at beginning of period	1,851.7	689.1
Cash and cash equivalents at end of period	\$ 836.6	\$ 1,851.7

Required

- Amgen reports that it generated \$3,566.6 million in net cash from operating activities in 2003. Yet, its net income for the year amounted to only \$2,259.5 million. Much of this difference is the result of depreciation. Why is Amgen adding depreciation to net income in the computation of operating cash flows?
- Amgen reports net cash inflows of \$268.6 million in tax benefits arising from employee stock options. These relate to tax benefits the company realizes when employees exercise stock options. Since employees will only exercise stock options when the market price of the stock is above the exercise price, do you feel that this is a reliable source of cash for the company? Explain.
- Amgen is reporting \$(255.5) million relating to trade receivables. What does the sign on this amount signify about the change in receivables during the year?
- Amgen reports \$824.6 million relating to accrued liabilities. Describe what this relates to and its implications for Amgen's future cash flows.
- Does the composition of Amgen's cash flow present a "healthy" picture for 2003? Explain.

Staples, Inc.
(SPLS)

P B-43. Interpreting the Statement of Cash Flows Following is the statement of cash flows of **Staples, Inc.**

In thousands	Year Ended January 31, 2004
Operating activities	
Net income	\$ 490,211
Adjustments to reconcile net income to net cash provided by operating activities:	
Depreciation and amortization	282,811
Asset impairment and other charges	—
Store closure charge	—
Deferred income taxes (benefit) expense	(13,725)
Other	36,434
Change in assets and liabilities, net of companies acquired	
(Increase) decrease in receivables	(4,218)
Decrease (increase) in merchandise inventories	147,130
Increase in prepaid expenses and other assets	(34)
(Decrease) increase in accounts payable	(27,266)
Increase in accrued expenses and other current liabilities	95,549
Increase in other long-term obligations	12,840
Net cash provided by operating activities	1,019,732
Investing activities	
Acquisition of property and equipment	(277,793)
Acquisition of businesses, net of cash acquired	(2,910)
Proceeds from sales and maturities of short-term investments	—
Purchase of short-term investments	(834,100)
Proceeds from sales and maturities of long-term investments	—
Purchase of long-term investments	—
Acquisition of lease rights	—
Net cash used in investing activities	(1,114,803)
Financing activities	
Proceeds from sale of capital stock	389,793
Proceeds from borrowings	—
Payments on borrowings	(325,235)
Repayments under receivables securitization agreement	(25,000)
Termination of interest rate swap agreement	—
Purchase of treasury stock	(4,287)
Net cash provided by (used in) financing activities	35,271
Effect of exchange rate changes on cash	21,376
Net (decrease) increase in cash and cash equivalents	(38,424)
Cash and cash equivalents at beginning of period	495,889
Cash and cash equivalents at end of period	\$ 457,465

Required

- a. Staples reports net income of \$490.211 million and net cash inflows from operating activities of \$1,019.732 million. Part of the difference relates to depreciation of \$282.811 million. Why does Staples add this amount in the computation of operating cash flows?
- b. Staples reports a positive amount of \$147.130 million relating to merchandise inventories. What does this signify about the change in the dollar amount of inventories during the year? Might this positive cash inflow be of some concern? Explain.
- c. Staples reports a cash outflow of \$1,114.803 million relating to investing activities. Is this cash outflow a cause for concern? Explain.
- d. Staples net cash flows from financing activities is \$35.271 million. Does this relatively small amount imply that there is no informational value in this category for the year? Explain.
- e. Staples cash balance decreased by \$38.424 million during the year. Is this a cause for concern? Explain. Does Staples present a “healthy” cash flow picture for the year? Explain.