

A large red number 9 is positioned to the left of a row of dominoes. The dominoes are white with yellow edges and feature various patterns including green dots, a green square, and floral designs. They are arranged in a slightly curved line.

9

The Income Statement and the Statement of Cash Flows

The income statement answers some of the most important questions that users of the financial statements have: What were the financial results of the entity's operations for the fiscal period? How much profit (or loss) did the firm have? Are sales increasing relative to cost of goods sold and other operating expenses? Many income statement accounts were introduced in Chapters 5–8 when transactions also affecting asset and liability accounts were explained. However, because of the significance of the net income figure to managers, stockholders, potential investors, and others, it is appropriate to focus on the form and content of this financial statement.

The income statement of [Intel Corporation](#) is on page 687 in the appendix. This page of the annual report has been reproduced as Exhibit 9-1. Note that comparative statements for the years ended on the last Saturday in December of 2008, 2007, and 2006 are presented. This permits the reader of the statement to assess quickly the recent trend of these important data.

As you might expect, [Intel's](#) income statement starts with “net revenues” (sales). What in popular jargon is referred to as the *bottom line*, or “net income,” is really the fifth line from the bottom of the statement. Before arriving at net income, subtotals are also provided for “gross margin,” “operating income,” and “income before taxes.” The significance of the last four lines of the statement will be discussed later in this chapter. The principal objective of the first part of this chapter is to permit you to make sense of any income statement.

The second part of this chapter explores the statement of cash flows in more detail than presented in Chapter 2. Remember that this statement explains the change in the entity's cash from the beginning to the end of the fiscal period by summarizing the cash effects of the firm's operating, investing, and financing activities during the period. The statement of cash flows gives investors a chance to go beyond income statement numbers and determine whether those results are consistent with what is happening in the principal cash flow categories. For example, the first hints of financial difficulties of dot-com highfliers and [Enron Corporation](#) were visible in this financial statement.

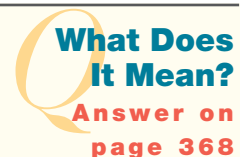
[Intel's](#) comparative statements of cash flows are presented on page 689 in the appendix for each of the past three years. Notice that the subtotal captions describe the activities—operating, investing, and financing—that caused cash to be provided and used during these years. Pay more attention to these three “big-picture” items than to the detailed captions and amounts

INTEL CORPORATION Consolidated Statements of Income (dollars in millions)			
Three Years Ended December 27, 2008	2008	2007	2006
Net revenues	\$37,586	\$38,334	\$35,382
Cost of sales	\$16,742	\$18,430	\$17,164
Gross margin	20,844	19,904	18,218
Research and development	5,722	5,755	5,873
Marketing, general, and administrative	5,458	5,417	6,138
Restructuring and asset impairment charges	710	516	555
Operating expenses	\$11,890	\$11,688	\$12,566
Operating income	\$ 8,954	\$ 8,216	\$ 5,652
Gains (losses) on equity securities, net	(1,756)	157	214
Interest and other, net	488	793	1,202
Income before taxes	\$ 7,686	\$ 9,166	\$ 7,068
Provision for taxes	2,399	2,190	2,024
Net income	\$ 5,292	\$ 6,976	\$ 5,044
Basic earnings per common share	\$ 0.93	\$ 1.20	\$ 0.87
Diluted earnings per common share	\$ 0.92	\$ 1.18	\$ 0.86
Weighted average common shares outstanding	5,663	5,816	5,797
Weighted average common shares outstanding, assuming dillution	5,748	5,936	5,880

within each category. Notice, however, that Intel uses a substantial amount of cash each year to purchase property, plant, and equipment (an investing activity) and to repurchase and retire common stock (a financing activity). As explained later, these are both signs of a financially healthy firm—especially if the firm can cover these payments from its cash flows provided by operating activities. Did Intel do this for each year presented?

The income statement and statement of cash flows report what has happened for a *period of time* (usually, but not necessarily, for the fiscal year ended on the balance sheet date). The balance sheet, remember, is focused on a single *point in time*—usually the end of the fiscal year—but one can be prepared as of any date.

1. What does it mean when net income is referred to as the “bottom line”



LEARNING OBJECTIVES (LO)

After studying this chapter you should understand

1. What revenue is and what the two criteria are that permit revenue recognition.

2. How cost of goods sold is determined under both perpetual and periodic inventory accounting systems.
3. The significance of gross profit (or gross margin) and how the gross profit (or gross margin) ratio is calculated and used.
4. The principal categories and components of “other operating expenses” and how these items are reported on the income statement.
5. What “income from operations” includes and why this income statement subtotal is significant to managers and financial analysts.
6. The components of the earnings per share calculation and the reasons for some of the refinements made in that calculation.
7. The alternative income statement presentation models.
8. The meaning and significance of each of the unusual items that may appear on the income statement, including
Noncontrolling (minority) interest in earnings of subsidiaries.
Discontinued operations.
Extraordinary items.
9. The purpose and general format of the statement of cash flows.
10. The difference between the direct and indirect methods of presenting cash flows from operating activities.
11. Why the statement of cash flows is significant to financial analysts and investors.

Exhibit 9-2 highlights the income statement and statement of cash flows components that are covered in detail in this chapter. Income statement transactions are often centered on the matching concept, and thus have a direct effect on most of the firm’s current assets, especially accounts receivable and inventory. The preparation of the statement of cash flows requires analysis of the changes during the year to each and every balance sheet account, with cash as the focal point.

Income Statement

Revenues

The FASB defines **revenues** as “inflows or other enhancements of assets of an entity or settlements of its liabilities (or a combination of both) from delivering or producing goods, rendering services, or other activities that constitute the entity’s ongoing major or central operations.”¹ In its simplest and most straightforward application, this definition means that when a firm sells a product or provides a service to a client or

LO 1

Understand what revenue is and what the two criteria are that permit revenue recognition.

¹FASB, *Statement of Financial Accounting Concepts No. 6*, “Elements of Financial Statements” (Stamford, CT, 1985), para. 78. Copyright © by the Financial Accounting Standards Board, High Ridge Park, Stamford, CT 06905, U.S.A. Quoted with permission. Copies of the complete document are available from the FASB.

Exhibit 9-2Financial Statements—
The Big Picture

Balance Sheet			
Current Assets	Chapter	Current Assets	Chapter
Cash and cash equivalents	5, 9	Short-term debt	7
Short-term marketable securities	5	Current maturities of long-term debt	7
Accounts receivable	5, 9	Accounts payable	7
Notes receivable	5	Unearned revenue or deferred credits	7
Inventories	5, 9	Payroll taxes and other withholdings	7
Prepaid expenses	5	Other accrued liabilities	7
Deferred tax assets	5		
Noncurrent Assets		Noncurrent Liabilities	
Land	6	Long-term debt	7
Buildings and equipment	6	Deferred income taxes	7
Assets acquired by capital lease	6	Other long-term liabilities	7
Intangible assets	6		
Natural resources	6	Owners' Equity	
Other noncurrent assets	6	Common stock	8
		Preferred stock	8
		Additional paid-in capital	8
		Retained earnings	8
		Accumulated other comprehensive income (loss)	8
		Treasury stock	8
		Noncontrolling interest	8
Income Statement		Statement of Cash Flows	
Sales	5, 9	Operating Activities	
Cost of goods sold	5, 9	Net income	5, 6, 7, 8, 9
Gross profit (or gross margin)	5, 9	Depreciation expense	6, 9
Selling, general, and administrative expenses	5, 6, 9	(Gains) losses on sale of assets	6, 9
Income from operations	9	(Increase) decrease in current assets	5, 9
Gains (losses) on sale of assets	6, 9	Increase (decrease) in current liabilities	7, 9
Interest income	5, 9		
Interest expense	7, 9	Investing Activities	
Income tax expense	7, 9	Proceeds from sale of property, plant, and equipment	6, 9
Unusual items	9	Purchase of property, plant, and equipment	6, 9
Net income	5, 6, 7, 8, 9		
Earnings per share	9	Financing Activities	
		Proceeds from long-term debt*	7, 9
		Repayment of long-term debt*	7, 9
		Issuance of common/ preferred stock	8, 9
		Purchase of treasury stock	8, 9
		Payment of dividends	8, 9
Primary topics of this chapter.			
Other affected financial statement components.			
*May include short-term debt items as well.			

customer and receives cash, creates an account receivable, or satisfies an obligation, the firm has revenue. Most revenue transactions fit this simple and straightforward situation. Revenues generally are measured by the amount of cash received or expected to be received from the transaction. If the cash is not expected to be received within a year, then the revenue usually is measured by the present value of the amount expected to be received.

In *Concepts Statement No. 5* the FASB expands on the preceding definition of revenues to provide guidance in applying the fundamental criteria involved in recognizing revenue. To be recognized, revenues must be realized or realizable and earned. Sometimes one of these criteria is more important than the other.

Realization means that the product or service has been exchanged for cash, claims to cash, or an asset that is readily convertible to a known amount of cash or claims to cash. Thus the expectation that the product or service provided by the firm will result in a cash receipt has been fulfilled.

Earned means that the entity has completed, or substantially completed, the activities it must perform to be entitled to the revenue benefits (the increase in cash or some other asset, or the satisfaction of a liability).

The realization and earned criteria for recognizing revenue usually are satisfied when the product or merchandise being sold is delivered to the customer or when the service is provided. Thus revenue from selling and servicing activities is commonly recognized when the sale is made, which means when the product is delivered or when the service is provided to the customer. Here is the effect on the financial statements:

Balance Sheet	Income Statement
Assets = Liabilities + Owners' equity	←Net income = Revenues − Expenses
+ Cash, or Accounts Receivable	+ Sales or Service Revenue

The typical entry would be:

Dr. Cash (or Accounts Receivable)	xx	
Cr. Sales (or Service Revenue)		xx

An example of a situation in which the *earned* criterion is more significant than the realization criterion is a magazine publishing company that receives cash at the beginning of a subscription period. In this case revenue is recognized as earned by delivery of the magazine. On the other hand, if a product is delivered or a service is provided without any expectation of receiving an asset or satisfying a liability (such as when a donation is made), there is no revenue to be recognized because the *realization* criterion has not been fulfilled.

When revenues are related to the use of assets over a period of time—such as the renting of property or the lending of money—they are earned as time passes and are recognized based on the contractual prices that have been established in advance.

Some agricultural products, precious metals, and marketable securities have readily determinable prices and can be sold without significant effort. Where this is the case, revenues (and some gains or losses) may be recognized when production is completed or when prices of the assets change. These are unusual situations, however, and

exceptions to the rule that an arm's-length exchange (i.e., sales transaction) must occur to meet the realization and earned criteria.

Due to the increasing complexity of many business activities and other newly developed transactions, a number of revenue recognition problems have arisen over the years. Therefore, the FASB and its predecessors within the American Institute of Certified Public Accountants have issued numerous pronouncements about revenue recognition issues for various industries and transactions. As a result, revenue recognition is straightforward an overwhelming proportion of the time. However, because they are the key to the entire income statement, revenues that are misstated (usually on the high side) can lead to significantly misleading financial statements. Accordingly, management and internal auditors often design internal control procedures to help promote the accuracy of the revenue recognition process of the firm.

Sales is the term used to describe the revenues of firms that sell purchased or manufactured products. In the normal course of business, some sales transactions will be subsequently voided because the customer returns the merchandise for credit or for a refund. In some cases, rather than have a shipment returned (especially if it is only slightly damaged or defective and is still usable by the customer), the seller will make an allowance on the amount billed and reduce the account receivable from the customer for the allowance amount. If the customer has already paid, a refund is made. These **sales returns and allowances** are accounted for separately for internal control and analysis purposes but are subtracted from the gross sales amount to arrive at **net sales**. In addition, if the firm allows cash discounts for prompt payment, total sales discounts are also subtracted from gross sales for reporting purposes. A fully detailed income statement prepared for use within the company might have the following revenue section captions:

Sales	\$
Less: Sales returns and allowances	()
Less: Sales discounts	()
Net sales	<u>\$</u>

Net sales, or net revenues, is the first caption usually seen in the income statement of a merchandising or manufacturing company (as illustrated in Exhibit 9-1). Many companies provide a detailed calculation of the net sales amount in the accompanying notes of the annual report.

Firms that generate significant amounts of revenue from providing services in addition to (or instead of) selling a product will label the revenue source appropriately in the income statement. Thus a leasing company might report Rental and Service Revenues as the lead item on its income statement, or a consulting service firm might show Fee Revenues or simply Fees. If a firm has several types of revenue, the amount of each could be shown if each amount is significant and is judged by the accountant to increase the usefulness of the income statement.

From a legal perspective, the sale of a product involves the passing of title (i.e., ownership rights) in the product from the seller to the purchaser. The point at which title passes usually is specified by the shipment terms (see Business in Practice—Shipping Terms). This issue becomes especially significant in two situations. The first involves shipments made near the end of a fiscal period. The shipping terms will determine whether revenue is recognized in the period in which the shipment was made



Business in Practice

Shipping Terms

Many products are shipped from the seller to the buyer instead of being picked up by the buyer at the time of sale. **Shipping terms** define the owner of products while they are in transit. **FOB destination** and **FOB shipping point** are the terms used. (FOB means *free on board* and is jargon that has carried over from the days when much merchandise was shipped by boat.) When an item is shipped FOB destination, the seller owns the product until it is accepted by the buyer at the buyer's designated location. Thus title to merchandise shipped FOB destination passes from seller to buyer when the merchandise is received by the buyer. FOB shipping point means that the buyer accepts ownership of the product at the seller's shipping location.

Shipping terms also describe which party to the transaction is to *incur* the shipping cost. The *seller* incurs the freight cost for shipments made FOB destination; the *buyer* incurs the cost of shipments made FOB shipping point. *Payment* of the freight cost is another issue, however. The freight cost for products shipped **freight prepaid** is paid by the seller; when a shipment arrives **freight collect**, the buyer pays the freight cost. Ordinarily items shipped FOB destination will have freight prepaid, and items shipped FOB shipping point will be shipped freight collect. However, depending on freight company policies or other factors, an item having shipping terms of FOB destination may be shipped freight collect, or vice versa. If this happens, the firm paying the freight subsequently collects the amount paid to the freight company from the other firm, which *incurred* the freight cost under the shipping terms.

or in the subsequent period when the shipment is received by the customer. Achieving an accurate “sales cutoff” may be important to the accuracy of the financial statements if the period-end shipments are material in amount. The second situation relates to any loss of or damage to the merchandise while it is in transit from the seller to the buyer. The legal owner of the merchandise, as determined by the shipping terms, is the one who suffers the loss. Of course this party may seek to recover the amount of the loss from the party responsible for the damage (usually a third-party shipping company).

For certain sales transactions, a firm may take more than a year to construct the item being sold (for example, a cruiseship builder or a manufacturer of complex custom machinery). In these circumstances, delaying revenue recognition until the product has been delivered may result in the reporting of misleading income statement information for a number of years. Because these items are being manufactured under a contract with the buyer that specifies a price, it is possible to recognize revenue (and costs and profits) under what is known as the **percentage-of-completion method**. If, based on engineers' analyses and other factors, 40 percent of a job has been completed in the current year, 40 percent of the expected revenue (and 40 percent of the expected costs) will be recognized in the current year.

Companies should disclose any unusual revenue recognition methods, such as the percentage-of-completion method, in the notes accompanying the financial statements. Because profits will be directly affected by revenue, the user of the financial statements must be alert to, and understand the effect of, any revenue recognition method that differs from the usual and generally accepted practice of recognizing revenue when the product or service has been delivered to the customer (see Business in Practice—Revenue Recognition Practices of Dot-Com Companies for a glimpse at some of the questionable practices employed in recent years).

Gains, which are increases in an entity's net assets resulting from incidental transactions or nonoperating activities, are usually not included with revenues at the beginning of the income statement. Gains are reported as other income after the firm's

Revenue Recognition Practices of Dot-Com Companies

Rapidly rising stock values of dot-com companies during the late 1990s seemed to run contrary to traditional value measures such as the price/earnings ratio because many of these companies had no earnings. Financial analysts and investors used revenue growth as a key benchmark. That focus tempted many firms to record revenues in ways that stretched generally accepted revenue recognition practices and bordered on reporting misleading results. Some of these practices were

Recognizing revenue too soon: Revenue was recognized when orders were received but before they were shipped, or revenue was recorded from future software upgrades before the upgrades had been completed, or revenue was recognized from software licenses when a contract was signed rather than over the life of the contract.

Overstating revenue from reselling: When a product or service was resold without ever having been owned by the reseller, revenue was recognized for the full amount charged to the purchaser rather than just for the reseller's markup.

As a result of such questionable practices, the Securities and Exchange Commission (SEC) issued a staff accounting bulletin on revenue recognition in late 1999 that generally delayed the recognition of revenue into future quarters for certain dot-com companies and caused several affected companies to restate prior year earnings. Historically more than half of all SEC accounting fraud cases have involved revenue hoaxes, so the heightened scrutiny of software company practices did not come as a surprise to many financial analysts.



**Business in
Practice**

operating expenses have been shown and income from operations has been reported. Interest income is an example of an “other income” item. The reporting of gains will be explained in more detail later in this chapter.

Expenses

The FASB defines **expenses** as “outflows or other using up of assets or incurrences of liabilities (or a combination of both) from delivering or producing goods, rendering services, or carrying out other activities that constitute the entity’s ongoing major or central operations.”² Some expenses (cost of goods sold is an example) are recognized concurrently with the revenues to which they relate. This is another application of the **matching principle**, which has been previously described and emphasized. Some expenses (administrative salaries, for example) are recognized in the period in which they are incurred because the benefit of the expense is used up simultaneously or soon after incurrence. Other expenses (depreciation, for example) result from an allocation of the cost of an asset to the periods that are expected to benefit from its use. In each of these categories, expenses are recognized in accordance with the matching principle because they are incurred to support the revenue-generating process. The amount of an expense is measured by the cash or other asset used up to obtain the economic benefit it represents. When the outflow of cash related to the expense will not occur within a year, it is appropriate to recognize the present value of the future cash flow as the amount of the expense.

Most of the time identifying expenses to be recognized in the current period’s income statement is straightforward. Cost of goods sold, compensation of employees,

²Ibid., para. 80.

uncollectible accounts receivable, utilities consumed, and depreciation of long-lived assets are all examples. In other cases (research and development costs and advertising expense, for example), the impact of the expenditure on the revenues of future periods is not readily determinable. For these types of expenditures, there is no sound method of matching the expenditure with the revenues that may be earned over several periods. To avoid the necessity of making arbitrary allocations, all advertising and R&D expenditures are recorded as expenses in the period incurred. This approach is justified by the objectivity and conservatism concepts.

Other types of expense involve complex recognition and measurement issues; income tax expense and pension expense are just two examples. Recall the discussion of these topics in Chapter 7 when the liabilities related to these expenses were discussed.

Losses, which are decreases in an entity's net assets resulting from incidental transactions or nonoperating activities, are not included with expenses. Losses are reported after income from operations, as discussed later in this chapter.

The discussion of expenses in this chapter follows the sequence in which expenses are presented in most income statements.

Cost of Goods Sold

Cost of goods sold is the most significant expense for many manufacturing and merchandising companies. Recall from your study of the accounting for inventories in Chapter 5 that the **inventory cost-flow assumption** (FIFO, LIFO, weighted average) being used by the firm affects this expense. **Inventory shrinkage** (the term that describes inventory losses from obsolescence, errors, and theft) usually is included in cost of goods sold unless the amount involved is material. In that case the inventory loss would be reported separately as a loss after operating income has been reported.

Determination of the cost of goods sold amount is a function of the inventory cost-flow assumption and the inventory accounting system (periodic or perpetual) used to account for inventories. Recall that under a perpetual system, a record is made of every purchase and every sale, and a continuous record of the quantity and cost of each item is maintained. When an item is sold, its cost (as determined according to the cost-flow assumption) is transferred from the inventory asset to the cost of goods sold expense with the following effect on the financial statements:

LO 2
Understand how cost of goods sold is determined under both perpetual and periodic inventory accounting systems.

Balance Sheet	Income Statement
Assets = Liabilities + Owners' equity	←Net income = Revenues – Expenses
– Inventory	– Cost of Goods Sold

Here is the entry:

Dr. Cost of Goods Sold	xx	
Cr. Inventory		xx

The key point about a perpetual inventory system is that cost is determined when the item is sold. As you can imagine, a perpetual inventory system requires much data processing but can give management a great deal of information about which inventory items are selling well and which are not. Advances in point-of-sale technologies

(such as standard bar code scanners used by retail stores) have allowed even small merchandising firms to achieve perpetual inventories. Some systems are even tied in with the firms' suppliers so that when inventory falls to a certain level, a reorder is automatically placed. Under any type of perpetual system, regular counts of specific inventory items will be made on a cycle basis during the year, and actual quantities on hand will be compared to the computer record of the quantity on hand. This is an internal control procedure designed to determine whether the perpetual system is operating accurately and to trigger an investigation of significant differences.

In a periodic inventory system, a count of the inventory on hand (*taking a physical inventory*) is made periodically—frequently at the end of a fiscal year—and the cost of inventory on hand (determined according to the cost-flow assumption) is determined. This cost is then subtracted from the sum of the cost of the beginning inventory (that is, the ending inventory of the prior period) and the cost of the merchandise purchased during the current period. (A manufacturing firm uses the cost of goods manufactured—discussed in Chapter 13—rather than purchases.) This **cost of goods sold model** is illustrated here using 2008 data from the [Intel Corporation](#) financial statements in the appendix. Can you find the inventory and cost of goods sold amounts in the appendix? The unknown amounts for net purchases and goods available for sale have been solved for in the model using these known amounts. All amounts are in millions of dollars:

Cost of beginning inventory	\$ 3,370
+ Net purchases (cost of goods manufactured).	17,116
= Cost of goods available for sale	\$20,486
– Cost of ending inventory	(3,744)
= Cost of goods sold	<u>\$16,742</u>

The amounts shown for cost of goods sold, inventory, and net purchases include the price paid to the supplier, plus all ordinary and necessary costs related to the purchase transaction (such as freight and material handling charges). Cost is reduced by the amount of any cash discount allowed on the purchase. When the periodic inventory system is used, freight charges, purchase discounts, and **purchase returns and allowances** (the purchaser's side of the sales return and allowance transaction) are usually recorded in separate accounts, and each account balance is classified with purchases. Thus the net purchases amount is made up of the following:

Purchases	\$
Add: Freight charges	
Less: Purchase discounts	()
Less: Purchase returns and allowances	()
Net purchases	<u>\$</u>

Although the periodic system may require a less complicated record-keeping system than the perpetual system, the need to take a complete physical inventory to determine accurately the cost of goods sold is a disadvantage. Also, although it can be estimated or developed from special analysis, inventory shrinkage (losses from theft, errors, and so on) is not really known when the periodic system is used because these losses are included in the total cost of goods sold.

Note that selling and administrative expenses (discussed later in the Operating Expenses section of this chapter) are not included as part of cost of goods sold.

Gross Profit or Gross Margin

LO 3
Understand the significance of gross profit and how the gross profit ratio is calculated and used.

The difference between sales revenue and cost of goods sold is **gross profit**, or **gross margin**. Using data from Exhibit 9-1, here is the income statement for [Intel Corporation](#) to this point:

INTEL CORPORATION Consolidated Statements of Income (dollars in millions)			
Three Years Ended December 27, 2008	2008	2007	2006
Net revenues	\$37,586	\$38,334	\$35,382
Cost of sales	16,742	18,430	17,164
Gross margin	\$20,844	\$19,904	\$18,218

When the amount of gross profit is expressed as a percentage of the sales amount, the resulting **gross profit ratio** (or **gross margin ratio**) is an especially important statistic for managers of merchandising firms. The calculation of the gross profit ratio for [Intel Corporation](#) for 2008 is illustrated in Exhibit 9-3.

Because the gross profit ratio is a measure of the amount of each sales dollar that is available to cover operating expenses and profit, one of its principal uses by the manager is to estimate whether the firm is operating at a level of sales that will lead to profitability in the current period. The manager knows from experience that if the firm is to be profitable, a certain gross profit ratio and level of sales must be achieved. Sales can be determined daily from cash register tapes or sales invoice records, and that amount then can be multiplied by the estimated gross profit ratio to determine the estimated gross profit amount. This amount can be related to estimated operating expenses to estimate the firm’s income from operations. In many cases just knowing the amount of sales is enough to be able to estimate whether the firm has reached profitability. This is especially true for firms that have virtually the same gross profit ratio for every item sold. However, if the gross profit ratio differs by class of merchandise (and it usually does), then the proportion of the sales of each class to total sales (the **sales mix**) must be considered when estimating total gross profit. For example, if [Intel](#) has a 70 percent gross profit ratio on microprocessors, chipsets, and motherboards, and a 40 percent gross profit ratio on networking and

Exhibit 9-3
Gross Profit Ratio

INTEL CORPORATION Gross Profit Ratio—2008 (dollars in millions)	
Net sales (or net revenues).	\$37,586
Cost of goods sold (or cost of sales)	16,742
Gross margin (or gross profit).	<u>\$20,844</u>
Gross profit ratio = Gross profit/Net sales = \$20,844/\$37,586 = 55.5%	

Assumptions:

A firm expects to have a gross profit ratio of 30% for the current fiscal year. Beginning inventory is known because it is the amount of the physical inventory taken at the end of the prior fiscal year. Net sales and net purchases are known from the accounting records of the current fiscal period.

Here is the model (with assumed known data entered):

Net sales	<u>\$100,000</u>	100%
Cost of goods sold:		
Beginning inventory	\$ 19,000	
Net purchases	<u>63,000</u>	
Cost of goods available for sale	\$ 82,000	
Less: Ending inventory	<u>?</u>	
Cost of goods sold	\$?	
Gross profit	<u>\$?</u>	30%

Calculation of estimated ending inventory:

$$\begin{aligned}\text{Gross profit} &= 30\% \times \$100,000 = \$30,000 \\ \text{Cost of goods sold} &= \$100,000 - \$30,000 = \$70,000 \\ \text{Ending inventory} &= \$82,000 - \$70,000 = \$12,000\end{aligned}$$

Exhibit 9-4

Using the Gross Profit Ratio to Estimate Ending Inventory and Cost of Goods Sold

communications products, and the sales mix changes frequently, then the sales of both product categories must be considered to estimate total gross profit anticipated for any given month.

The gross profit ratio can be used to estimate cost of goods sold and ending inventory for periods in which a physical inventory has not been taken, as illustrated in Exhibit 9-4. This is the process used to estimate the amount of inventory lost in a fire, flood, or other natural disaster. Note that the key to the calculation is the estimated gross profit ratio. Many firms prepare quarterly (or monthly) income statements for internal reporting purposes and use this estimation technique to avoid the cost and business interruptions associated with an inventory count.

Another important use of the gross profit ratio is to set selling prices. If the manager knows the gross profit ratio required to achieve profitability at a given level of sales, the cost of the item can be divided by the complement of the gross profit ratio (or the cost of goods sold ratio) to determine the selling price. This is illustrated in Exhibit 9-5. Of course competitive pressures, the manufacturer's recommended selling price, and other factors will also influence the price finally established, but the desired gross profit ratio and the item's cost are frequently the starting points in the pricing decision.

The gross profit ratio required to achieve profitability will vary among firms as a result of their operating strategies. For example, a discount store seeks a high sales volume and a low level of operating expenses, so a relatively low gross profit ratio is accepted. A boutique, on the other hand, has a relatively low sales volume and higher operating expenses and needs a relatively high gross profit ratio to achieve profitability.

Even though gross profit and the gross profit ratio are widely used internally by the managers of the firm, many companies do not present gross profit as a separate item in their published income statements. However, cost of goods sold usually is

Exhibit 9-5

Using Desired Gross Profit Ratio to Set Selling Price

Assumption:

A retail store's cost for a particular carpet is \$8 per square yard. What selling price per square yard should be established for this product if a 20% gross profit ratio is desired?

$$\begin{aligned} \text{Selling price} &= \text{Cost of product} / (1 - \text{Desired gross profit ratio}) \\ &= \$8 / (1 - 0.2) \\ &= \$10 \end{aligned}$$

Proof:

Calculated selling price	\$10 per square yard
Cost of product	8 per square yard
Gross profit	\$ 2 per square yard

$$\begin{aligned} \text{Gross profit ratio} &= \text{Gross profit} / \text{Selling price} \\ &= \$2 / \$10 \\ &= 20\% \end{aligned}$$

shown as a separate item. Thus the user of the income statement can make the calculation for comparative and other evaluation purposes.

Operating Expenses

The principal categories of other **operating expenses** frequently reported on the income statement are

- Selling expenses.
- General and administrative expenses.
- Research and development expenses.

These categories can be combined in a variety of ways for financial reporting purposes. For instance, Intel uses two principal categories: “Research and development” and “Marketing, general, and administrative” expenses.

The financial statement footnotes will sometimes provide detailed disclosure of the nature and amount of expense items that are combined with others in the income statement. However, management often reports certain operating expenses as separate items to highlight their significance. Common examples include repairs and maintenance, research and development, and advertising. Total depreciation and amortization expense is frequently reported as a separate item on the income statement (or disclosed in the explanatory notes) because these expenses do not result in the disbursement of cash. The total of depreciation and amortization expense also appears in the statement of cash flows, as will be illustrated later in this chapter. Note that Intel includes a separate line item for restructuring and asset impairment charges (discussed on pages 717–719 in the notes to the consolidated financial statements in Intel’s annual report in the appendix).

Income from Operations

The difference between gross profit and operating expenses represents **income from operations** (or **operating income**), as shown in the following partial income statement from Exhibit 9-1:

LO 4 Understand the principal categories and components of “other operating expenses” and how these items are reported on the income statement.

INTEL CORPORATION Consolidated Statements of Income (dollars in millions)			
Three Years Ended December 27, 2008	2008	2007	2006
Net revenues	\$37,586	\$38,334	\$35,382
Cost of sales	\$16,742	\$18,430	\$17,164
Gross margin	20,844	19,904	18,218
Research and development	5,722	5,755	5,873
Marketing, general, and administrative	5,458	5,417	6,138
Restructuring and asset impairment charges	710	516	555
Operating expenses	\$11,890	\$11,688	\$12,566
Operating income	\$ 8,954	\$ 8,216	\$ 5,652

LO 5

Understand what “income from operations” includes and why this income statement subtotal is significant to managers and financial analysts.

Although only an intermediate subtotal on the income statement, income from operations is frequently interpreted as the most appropriate measure of management’s ability to utilize the firm’s operating assets. Income from operations normally *excludes* the effects of interest expense, interest income, gains and losses, income taxes, and other nonoperating transactions. Thus many investors prefer to use income from operations data (rather than net income data) to make a “cleaner” assessment of the firm’s profitability trend. As discussed in Chapter 3, income from operations is frequently used in the return on investment calculation, which relates operating income to average operating assets.

Although operating income is commonly used as a proxy for net income, investors must pay careful attention to the items that are included in the determination of this important subtotal. In recent years, for example, many firms have reported items such as “restructuring charges” and “asset impairment losses” as operating expenses because the corporate downsizing efforts that lead to such write-offs have been occurring more frequently. Yet other firms report these items in the “other income and expenses” category, which is shown as a *nonoperating* item. Of course it also is permissible (and quite common) to simply subtract total expenses from total revenues to arrive at net income without indicating a separate amount for income from operations.

Managers of firms that do not report income from operations as a separate item believe that other income and expense items (such as gains and losses) should receive as much attention in the evaluation process as revenues and expenses from the firm’s principal operations. After all, nonoperating items do exist and do affect overall profitability. There is no single best presentation for all firms; this is another area in which the accountant’s judgment is used to select among equally acceptable financial reporting alternatives.

Other Income and Expenses

Other income and expenses are reported after income from operations. These nonoperating items include interest expense, interest income, gains, and losses.

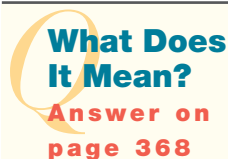
Interest expense is the item of other income and expenses most frequently identified separately. Most financial statement users want to know the amount of this expense because it represents a contractual obligation that cannot be avoided. As discussed in Chapter 7, interest expense is associated with financial leverage. The more a firm borrows, the more interest expense it incurs, and the higher its financial leverage. Although

this may lead to a greater ROE for stockholders, it also increases the riskiness of their investment.

Interest income earned from excess cash that has been temporarily invested is not ordinarily subtracted from interest expense. Interest income is reported as a separate item if it is material in amount relative to other nonoperating items. The full disclosure principle is applied to determine the extent of the details reported in this section of the income statement. Significant items that would facilitate the reader's understanding of net income or loss are separately identified, either in the statement itself or in the footnotes. Items that are not significant are combined in an "other" or "miscellaneous" category. Examples of nonoperating gains or losses are those resulting from litigation, the sale or disposal of depreciable assets (including plant closings), and inventory obsolescence losses; also shown here are items that are unusual or infrequent, but not both.

Income before Income Taxes and Income Tax Expense

The income statement usually has a subtotal labeled "**Income before income taxes**," followed by the caption "Income taxes" or "Provision for income taxes" and the amount of this expense. Some income statements do not use the "Income before income taxes" caption; income taxes are simply listed as another expense in these statements. There will be a footnote disclosure of the details of the income tax expense calculation because this is required by generally accepted accounting principles.



2. What does it mean to look at the trend of the major subtotals on an income statement?

Net Income and Earnings per Share

LO 6

Understand the components of the earnings per share calculation and the reasons for some of the refinements made in that calculation.

Net income (or net loss), sometimes called the *bottom line*, is the arithmetic sum of the revenues and gains minus the expenses and losses. Because net income increases retained earnings, which usually is a prerequisite to dividends, stockholders and potential investors are especially interested in net income. Reinforce your understanding of information presented in the income statement by referring again to Exhibit 9-1 and by studying the structure of income statements in other annual reports you may have.

To facilitate interpretation of net income (or loss), it also is reported on a per share of common stock basis. Reported are **basic earnings per share** and, if the firm has issued stock options or convertible securities (long-term debt or preferred stock that is convertible into common stock), **diluted earnings per share**. Basic EPS and diluted EPS (if appropriate) are presented both for income from continuing operations or income before extraordinary items (discussed later in this chapter) and for net income. Basic earnings per share is calculated by dividing net income by the average number of shares of common stock outstanding during the year. Two principal complications in the calculation should be understood. First, a weighted-average number of shares of common stock is used. This is sensible because if shares are issued early in the year, the proceeds from their sale have been used longer in the income-generating process than the proceeds from shares issued later in the year. The weighting basis usually used is the number of months each block of shares has been outstanding. The weighted-average calculation is illustrated in Exhibit 9-6.

Assumptions:

On September 1, 2010, the beginning of its fiscal year, Cruisers, Inc., had 200,000 shares of common stock outstanding.

On January 3, 2011, 40,000 additional shares were issued for cash.

On June 25, 2011, 15,000 shares of common stock were acquired as treasury stock (and are no longer outstanding).

Weighted-average calculation:

Period	Number of Months	Number of Shares Outstanding	Months × Shares
9/1–1/3.	4	200,000	800,000
1/3–6/25.	6	240,000	1,440,000
6/25–8/31	<u>2</u>	225,000	<u>450,000</u>
Totals	12		<u><u>2,690,000</u></u>

$$\begin{aligned}\text{Weighted-average number of shares outstanding} &= 2,690,000/12 \\ &= 224,167\end{aligned}$$

Exhibit 9-6

Weighted-Average
Shares Outstanding
Calculation

The other complication in the EPS calculation arises when a firm has preferred stock outstanding. Remember that preferred stock is entitled to its dividend before dividends can be paid on common stock. Because of this prior claim to earnings, the amount of the preferred stock dividend requirement is subtracted from net income to arrive at the numerator in the calculation of earnings per share of common stock outstanding. Recall that dividends are not expenses, so the preferred stock dividend requirement is not shown as a deduction in the income statement. To illustrate the basic EPS calculation, assume that Cruisers, Inc., had net income of \$1,527,000 for the year ended August 31, 2010, and had 80,000 shares of a 7%, \$50 par value preferred stock outstanding during the year. Using the weighted-average number of shares of common stock outstanding from Exhibit 9-6, the earnings per share of common stock would be calculated as follows:

Net income	\$1,527,000
Less preferred stock dividend requirement (7% × \$50 par value × 80,000 shares outstanding) . . .	<u>280,000</u>
Net income available for common stock	<u><u>\$1,247,000</u></u>

$$\begin{aligned}\text{Basic earnings per share of common stock outstanding} &= \frac{\text{Net income available for common stock}}{\text{Weighted-average number of shares of common stock outstanding}} \\ &= \$1,247,000/224,167 \\ &= \$5.56\end{aligned}$$

Because of their significance, earnings per share amounts are reported on the income statement just below the amount of net income.


As stated previously, in addition to the basic earnings per share, a firm may be required to report *diluted earnings per share*. If the firm has issued long-term debt or preferred stock

that is convertible into common stock, it is possible that the conversion of the debt or preferred stock could reduce basic earnings per share of common stock outstanding. This can happen because the increase in net income available for common stock (if interest expense is reduced, or preferred dividends are not required) is proportionately less than the number of additional common shares issued in the conversion. If a firm has a stock option plan (see Chapter 10), the issuance of additional shares pursuant to the plan has the potential of reducing basic earnings per share. Other incentive and financing arrangements may also require issuance of additional shares, which may similarly decrease basic earnings per share. The reduction in basic earnings per share of common stock is referred to as **dilution**. The effect of the potential dilution is reported on the income statement by showing diluted earnings per share of common stock as well as basic earnings per share. Intel’s diluted earnings per share of \$0.92 for 2008 represented a potential dilution of just \$0.01 per share due to the potentially dilutive effects of employee equity incentive plans and convertible debt. Refer to pages 687 and 731 in Intel’s annual report in the appendix for details.

The income statement presentation of net income and EPS follows. Data are from the previous Cruisers, Inc., illustrations, which have no discontinued operations or extraordinary items. Note that the diluted earnings per share amount is assumed for illustration:

Net income	\$1,527,000
Basic earnings per share of common stock	\$ 5.56
Diluted earnings per share of common stock	\$ 4.98

If there are any *unusual items* on the income statement (discussed later in this chapter), the per share amount of each item is disclosed, and EPS is the sum of EPS before the unusual items and the per share amounts of the unusual items. This is done for both basic and diluted EPS data.



**What Does
It Mean?**

Answer on
page 368

3. What does it mean when earnings per share are subject to dilution?

Income Statement Presentation Alternatives

LO 7
Understand the alternative income statement presentation models.

There are two principal alternative presentations of income statement data: the **single-step format** and the **multiple-step format**. These are illustrated in Exhibit 9-7 using hypothetical data for Cruisers, Inc., for fiscal years 2010 and 2011. (Examples of the unusual items that may appear on the income statement will be discussed in the next section of this chapter and illustrated in Exhibit 9-8.)

You may notice an inconsistency in the use of parentheses in the single-step and multiple-step formats in Exhibit 9-7. No parentheses are used in the single-step format; the user is expected to know by reading the captions which items to add and which to subtract in the calculation of net income. In the multiple-step format the caption for “Other income (expense)” indicates that *in this section of the statement*, items without parentheses are added and items in parentheses are subtracted. In other parts of the statement, the caption indicates the arithmetic operation. With either format, the statement reader must be alert to make sense of the information presented in the statement.

I. Single-step format:**Exhibit 9-7**Income Statement
Format Alternatives

CRUISERS, INC., AND SUBSIDIARIES Consolidated Income Statement For the Years Ended August 31, 2011 and 2010 (000 omitted)		
	2011	2010
Net sales	\$77,543	\$62,531
Cost of goods sold	48,077	39,870
Selling expenses	13,957	10,590
General and administrative expenses	9,739	8,191
Interest expense	3,378	2,679
Other income (net)	385	193
Income before taxes	\$ 2,777	\$ 1,394
Provision for income taxes	1,250	630
Net income	<u>\$ 1,527</u>	<u>\$ 764</u>
Basic earnings per share of common stock	<u>\$ 5.56</u>	<u>\$ 2.42</u>

II. Multiple-step format:

CRUISERS, INC., AND SUBSIDIARIES Consolidated Income Statement For the Years Ended August 31, 2011 and 2010 (000 omitted)		
	2011	2010
Net sales	\$77,543	\$62,531
Cost of goods sold	48,077	39,870
Gross profit	\$29,466	\$22,661
Selling, general, and administrative expenses	23,696	18,781
Income from operations	\$ 5,770	\$ 3,880
Other income (expense):		
Interest expense	(3,378)	(2,679)
Other income (net)	385	193
Income before taxes	\$ 2,777	\$ 1,394
Provision for income taxes	1,250	630
Net income	<u>\$ 1,527</u>	<u>\$ 764</u>
Basic earnings per share of common stock	<u>\$ 5.56</u>	<u>\$ 2.42</u>

The principal difference between these two formats is that the multiple-step format provides subtotals for gross profit and income from operations. As previously discussed, each of these amounts is useful in evaluating the performance of the firm, and proponents of the multiple-step format believe that it is appropriate to highlight these amounts.

The gradual trend during the past several decades has been for more companies to use the multiple-step income statement format. A survey of the year 2007 annual reports of 600 publicly owned industrial and merchandising companies indicated that only 94 companies continued to use the single-step format (as compared to 168 companies in the 1997 survey, 259 in 1987, and 351 in 1977).³ This trend apparently

³ AICPA, *Accounting Trends and Techniques* (New York, 2008, 1998, 1988, and 1978), Table 3-2.

reflects the increasing complexity of business activities and the demand for more detailed information.

Unusual Items Sometimes Seen on an Income Statement

LO 8

Understand the meaning and significance of each of the unusual items that may appear on the income statement.

One way investors and potential investors use the income statement is to predict probable results of future operations from the results of current operations. Nonrecurring transactions that affect the predictive process are highlighted and reported separately from the results of recurring transactions. The reporting of unusual items also facilitates users' comparisons of net income for the current year with that of prior years. Two frequently encountered unusual items relate to discontinued operations and extraordinary items. Other captions sometimes seen on an income statement relate to the cumulative effect of a change in the application of an accounting principle (for years prior to 2006) or to the noncontrolling (minority) interest in earnings of subsidiaries. *When any of these items affects income tax expense, the amount disclosed in the income statement is the amount of the item net of the income tax effect.* Each of these unusual items is discussed in the following paragraphs.

Discontinued operations. When a segment, or major portion of a business, is disposed of, it is appropriate to disclose separately the impact that the discontinued operation has had on the current operations of the firm, as well as its impact on any previous year results that are shown for comparative purposes. This separate disclosure is made to help users of the financial statements understand how future income statements may differ because the firm will be operating without the disposed business segment. This is accomplished by reporting the income or loss, after income taxes, of the discontinued operation separately after a subtotal amount labeled **income from continuing operations**. (Income from continuing operations is the income after income taxes of continuing operations.) By reporting discontinued operations as a separate item, net of taxes, all of the effects of the discontinued business segment are excluded from the revenues, expenses, gains, and losses of continuing operations. This presentation is illustrated in Exhibit 9-8. Note that earnings per share data are also reported separately for discontinued operations. If Cruisers, Inc., had issued dilutive securities or stock options, the impact of the discontinued operations on diluted EPS data would also have been reported.

What Does It Mean?

Answer on
page 368

4. What does it mean when income or loss from discontinued operations is shown in the income statement?

Extraordinary items. A transaction that is unusual in nature and occurs infrequently qualifies for reporting as an **extraordinary item** if the amount involved has a significant after-tax income statement effect. The reason for such separate reporting is to emphasize that the item is extraordinary and that the income statements for subsequent years are not likely to include this kind of item. Examples of extraordinary items are pension plan terminations, some litigation settlements, and utilization of tax loss carryforwards.

A wide variety of financial statement presentation alternatives for “unusual items” is encountered in practice, depending on the specific combination of items reported by any given company. Do not attempt to memorize the *language* used in Exhibit 9-8 to describe these nonrecurring items. Instead focus on the nature of each item and consider why it is reported *after* income from operations.



Study Suggestion

Under either the single-step or multiple-step format (see Exhibit 9-7), the “Income before taxes” caption would be shown as “Income from *continuing operations* before taxes,” and the rest of the income statement would appear as follows:

	2011	2010
Income from continuing operations before taxes	\$ 2,777	\$1,394
Provision for income taxes	<u>1,250</u>	<u>630</u>
Income from continuing operations	\$ 1,527	\$ 764
Discontinued operations, net of income taxes:		
Loss from operations	(162)	(122)
Loss on disposal	<u>(79)</u>	<u>—</u>
Loss from discontinued operations	\$ (241)	(122)
Earnings before extraordinary item	\$ 1,286	\$ 642
Extraordinary item:		
Gain on termination of pension plan, net of income taxes	<u>357</u>	<u>—</u>
Net income	<u>\$ 1,643</u>	<u>\$ 642</u>
Basic earnings per share of common stock outstanding:		
Continuing operations	\$ 5.56	\$ 2.42
Discontinued operations:		
Loss from operations	(0.72)	(0.61)
Loss on disposal	<u>(0.35)</u>	<u>—</u>
Extraordinary item	<u>1.59</u>	<u>—</u>
Net income	<u>\$ 6.08</u>	<u>\$ 1.81</u>

Exhibit 9-8

Income Statement
Presentation of Unusual
Items (continued from
Exhibit 9-7)

When an extraordinary item is reported, basic and diluted (if applicable) earnings per share of common stock outstanding are reported for income before the extraordinary item, for the extraordinary item, and for net income (after the extraordinary item). This presentation is also illustrated in Exhibit 9-8 for basic EPS (it is assumed that Cruisers, Inc., has no dilutive securities or stock options).

Noncontrolling interest in earnings of subsidiaries. As explained in Chapters 7 and 8, the financial statements of a subsidiary are consolidated with those of the parent even though the parent owns less than 100 percent of the stock of the subsidiary. The consolidated income statement includes all of the revenues, expenses, gains, and losses of the subsidiary. However, only the parent company’s equity in the subsidiary’s earnings should be included in the *bottom line*, **net income attributable to (parent company name)** caption (sometimes referred to as *net income attributable to controlling interest*). The amount of **net income attributable to noncontrolling interest**

must also be clearly identified and presented on the face of the consolidated income statement, and is normally subtracted from net income as follows:

$$\begin{array}{r}
 \text{Revenues} \\
 - \text{Expenses} \\
 = \text{Net income} \\
 - \text{Net income attributable to noncontrolling interest} \\
 = \text{Net income attributable to (parent company name)}
 \end{array}$$

Earnings-per-share amounts reported in consolidated financial statements continue to be based on amounts attributable to the parent.

Statement of Cash Flows

Content and Format of the Statement

LO 9

Understand the purpose and general format of the statement of cash flows.

The **statement of cash flows** is a required financial statement that illustrates how accounting evolves to meet the requirements of users of financial statements. The importance of understanding the cash flows of an entity has been increasingly emphasized over the years. The accrual basis income statement is not designed to present cash flows from operations, and except for related revenues and expenses, it shows no information about cash flows from investing and financing activities.

The primary purpose of the statement of cash flows is to provide relevant information about the cash receipts and cash payments of an enterprise during a period.⁴ The statement shows why cash (including short-term investments that are essentially equivalent to cash) changed during the period by reporting net cash provided or used by operating activities, investing activities, and financing activities.

LO 10

Understand the difference between the direct and indirect methods of presenting cash flows from operating activities.

Cash flows from operating activities. There are two alternative approaches to presenting the operating activities section of the statement of cash flows: the *direct method presentation* and the *indirect method presentation*. The direct method involves listing each major class of cash receipts transactions and cash disbursements transactions for each of the three activity areas. The operating activity transactions include cash received from customers, cash paid to merchandise or raw material suppliers, cash paid to employees for salaries and wages, cash paid for other operating expenses, cash payments of interest, and cash payments for taxes. A direct method statement of cash flows is illustrated in Section I of Exhibit 9-9. *Notice that under the direct method, each of the captions reported on the statement explains how much cash was received or paid during the year for that item.* For this reason the FASB standard encourages enterprises to use the direct method.

The indirect method explains cash flows from operating activities by explaining the change in each noncash operating account in the balance sheet. A statement of cash flows prepared this way shows net income as the first source of operating cash. However, net income is determined on the accrual basis and must be adjusted for revenues and expenses that do not affect cash. The most significant noncash income statement

⁴ FASB, *Statement of Financial Accounting Standards No. 95*, "Statement of Cash Flows" (Stamford, CT, 1987), para. 4. Copyright © by the Financial Accounting Standards Board, High Ridge Park, Stamford, CT 06905, U.S.A. Quoted with permission. Copies of the complete document are available from the FASB.

I. Direct method:

Exhibit 9-9Statement of Cash
Flows

CRUISERS, INC., AND SUBSIDIARIES Consolidated Statements of Cash Flows For the Years Ended August 31, 2011 and 2010 (000 omitted)		
	2011	2010
Cash Flows from Operating Activities:		
Cash received from customers	\$ 14,929	\$ 13,021
Cash paid to suppliers	6,784	8,218
Payments for compensation of employees	2,137	1,267
Other operating expenses paid	1,873	1,002
Interest paid	675	703
Taxes paid	1,037	532
Net cash provided by operating activities	<u>\$ 2,423</u>	<u>\$ 1,299</u>
Cash Flows from Investing Activities:		
Proceeds from sale of land	\$ —	\$ 200
Investment in plant and equipment	(1,622)	(1,437)
Net cash used for investing activities	<u>\$ (1,622)</u>	<u>\$ (1,237)</u>
Cash Flows from Financing Activities:		
Additional long-term borrowing	\$ 350	\$ 180
Payment of long-term debt	(268)	(53)
Purchase of treasury stock	(37)	(26)
Payment of dividends on common stock	(363)	(310)
Net cash used for financing activities	<u>\$ (318)</u>	<u>\$ (209)</u>
Increase (decrease) in cash	\$ 483	\$ (147)
Cash balance, August 31, 2010 and 2009	276	423
Cash balance, August 31, 2011 and 2010	<u>\$ 759</u>	<u>\$ 276</u>
Reconciliation of Net Income and Net Cash Provided by Operating Activities:		
Net income	\$ 1,390	\$ 666
Add (deduct) items not affecting cash:		
Depreciation expense	1,063	882
Gain on sale of land	—	(110)
Increase in accounts receivable	(30)	(44)
Increase in inventories	(21)	(168)
Increase in current liabilities	16	66
Other (net)	5	7
Net cash provided by operating activities	<u>\$ 2,423</u>	<u>\$ 1,299</u>

(continued)

item is usually total depreciation and amortization expense. Here are the effects of these transactions on the financial statements:

Balance Sheet	Income Statement
Assets = Liabilities + Owners' equity	← Net income = Revenues − Expenses
− Accumulated Depreciation	− Depreciation Expense
− Intangible Asset	− Amortization Expense

Exhibit 9-9

(concluded)

II. Indirect method:

CRUISERS, INC., AND SUBSIDIARIES Consolidated Statements of Cash Flows For the Years Ended August 31, 2011 and 2010 (000 omitted)		
	2011	2010
Cash Flows from Operating Activities:		
Net income	\$ 1,390	\$ 666
Add (deduct) items not affecting cash:		
Depreciation expense	1,063	882
Gain on sale of land	—	(110)
Increase in accounts receivable	(30)	(44)
Increase in inventories	(21)	(168)
Increase in current liabilities	16	66
Other (net)	5	7
Net cash provided by operating activities	<u>\$ 2,423</u>	<u>\$ 1,299</u>
Cash Flows from Investing Activities:		
Proceeds from sale of land	\$ —	\$ 200
Investment in plant and equipment	(1,622)	(1,437)
Net cash used for investing activities	<u>\$ (1,622)</u>	<u>\$ (1,237)</u>
Cash Flows from Financing Activities:		
Additional long-term borrowing	\$ 350	\$ 180
Payment of long-term debt	(268)	(53)
Purchase of treasury stock	(37)	(26)
Payment of dividends on common stock	(363)	(310)
Net cash used for financing activities	<u>\$ (318)</u>	<u>\$ (209)</u>
Increase (decrease) in cash	\$ 483	\$ (147)
Cash balance, August 31, 2010 and 2009	276	423
Cash balance, August 31, 2011 and 2010	<u>\$ 759</u>	<u>\$ 276</u>

The entries to record these items are:

Dr. Depreciation Expense	xx	
Cr. Accumulated Depreciation		xx
Dr. Amortization Expense	xx	
Cr. Intangible Asset		xx

Because the depreciation and amortization expense amounts do not affect cash, these items are added back to net income to determine more accurately the amount of cash generated from operations. Other income statement items that need to be considered in a similar way include

- Income tax expense not currently payable (that is, deferred income taxes resulting from temporary differences in the recognition of revenues and expenses for book and tax purposes).

- Gains or losses on the sale or abandonment of assets. The *proceeds* from the sale, not the gain or loss, affect cash. Losses are added back to net income, and gains are subtracted from net income. The sale proceeds are reported as an investing activity, as described later.
- Increases (or decreases) to interest expense that result from the amortization of discount (or premium) on bonds payable. Discount amortization is added back to net income, and premium amortization is subtracted from net income.

Changes in the noncash operating accounts must also be shown. Thus increases in current assets and decreases in current liabilities are reported as operating uses of cash. Conversely, decreases in current assets and increases in current liabilities are reported as operating sources of cash. An indirect method statement of cash flows is illustrated in Section II of Exhibit 9-9.

Note that the difference between the two methods is only in the presentation of cash flows from operating activities. When the direct method format is used, a separate schedule is required to reconcile net income reported on the income statement with net cash provided by operating activities. This reconciliation is in the form of the indirect method presentation of net cash provided by operating activities. A survey of the annual reports of 600 publicly owned merchandising and manufacturing companies for the year 2007 indicated that 594 firms used the indirect method presentation, whereas only 6 companies used the direct method presentation.⁵ Business in Practice—Understanding Cash Flow Relationships: Indirect Method explains the cash flow relationships under the indirect method in more detail.

In a consolidated statement of cash flows reporting a noncontrolling interest, the top portion of the operating activities section is modified as follows:

$$\begin{array}{l} \text{Net income attributable to common shareholders} \\ + \text{Net income attributable to noncontrolling interest} \\ \hline = \text{Net income} \end{array}$$

Cash flows from investing and financing activities. Investing activities relate primarily to the purchase and sale of noncurrent assets. Cash is often used for the acquisition of assets such as land, buildings, or equipment during the year (these investments are sometimes called *capital additions*). Investments in debt or equity securities of other entities are also shown as investing uses. Likewise, cash received from the sale of noncurrent assets is shown as an investing source of cash. The lending of money and subsequent collection of loans are considered investing activities as well.

Financing activities relate primarily to changes during the year in nonoperating liabilities (such as bonds payable) and in owners' equity accounts other than net income (loss), which is treated as an operating activity. Thus the issuance of bonds or common stock will result in a financing source of cash, and the retirement of bonds will be reported as a financing use. Cash dividends and treasury stock transactions also are reported as financing activities because they affect owners' equity.

Interpreting the Statement of Cash Flows

The statement of cash flows focuses on cash receipts and cash payments during the period, so the first question to be answered is "Did the company's cash balance increase or decrease during the period?" The answer is usually found near the bottom

LO 11

Understand why the statement of cash flows is significant to financial analysts and investors.

⁵AICPA, *Accounting Trends and Techniques* (New York, 2008), Table 6-2.



Business in Practice

Understanding Cash Flow Relationships: Indirect Method

As indicated by the AICPA study, most firms report the statement of cash flows using the indirect method. The primary reason for this preference is that no separate accounting procedures are needed for companies to accumulate cash flow data when the indirect method is used. The statement of cash flows normally is prepared using balance sheet and income statement data and other information readily available from the company's accounting records. However, the operating activities information reported under the direct method is not so readily determinable, and the cost of generating this information can be prohibitive.

The primary objective of the operating activities section of the statement of cash flows (indirect method) is to determine the net cash provided by operating activities. Although net income is determined on an accrual basis, it is ordinarily the most accurate proxy for operating cash flows and thus serves as the starting point in the calculation of this important amount. *Note, however, that none of the adjustments shown in the operating activities section (indirect method) explains how much cash was actually received or paid during the year!* The only operating activity items that convey independent meaning are the amounts shown for net income and net cash provided by operating activities. Review the operating activities section of Exhibit 9-9 for the indirect method. Notice, for example, that accounts receivable increased during both years presented. Does this explain how much cash was received from the collection of accounts receivable during these years? (No, but the direct method shows these amounts.) Once you understand this, the adjustment process for the indirect method can be thought of in a rather mechanical fashion.

Net income is initially assumed to generate operating cash, and this assumption is then adjusted for the effects of noncash (or nonoperating) income statement items. As already explained, the amounts shown for depreciation and amortization expense will be added back to net income each year because cash is never paid for these expenses. Similar adjustments would be made to remove the effects of noncash revenues or to remove the effects of most nonoperating transactions included in net income (such as gains or losses from the sale of long-term assets). Once these income statement adjustments are made, the current (*operating*) accounts on the balance sheet must be analyzed to determine their effects on cash during the year. To simplify the analysis, assume that all changes in account balances from the beginning to the end of the year are attributable to cash transactions. For example, if inventory (a current asset) increased during the year, then cash must have decreased (to pay for the increase in inventory). The financial statement effect of this assumed transaction would be as shown in the horizontal model representation presented on the following page:

of the statement. In the annual report of a publicly owned corporation, comparative statements for the most recent and prior two years will be presented, and the change in each of the years can be noted. If the change in the cash balance during a year has been significant (for example, more than 10 percent of the beginning cash balance), the financial statement user will try to understand the reasons for the change by focusing on the relative totals of each of the three categories of cash flows—operating activities, investing activities, and financing activities. Even if the change in the cash balance during a year is not significant, the relationship between these broad categories will be observed.

A firm should have a positive cash flow provided by operating activities. If operating activities do not generate cash, the firm will have to seek outside funding to finance its day-to-day activities, as well as its investment requirements. Although negative cash flow from operating activities might apply to a firm just starting up, it would be a sign of possible financial weakness for a mature company.

Balance Sheet	Income Statement
Assets = Liabilities + Owners' equity	←Net income = Revenues − Expenses
+ Inventory − Cash	

The entry is:

Dr. Inventory	xx	
Cr. Cash		xx

Likewise, if accounts payable (a current liability) increased during the year, then cash was not spent and the flow of cash thus increased, as illustrated by the following assumed transaction:

Balance Sheet	Income Statement
Assets = Liabilities + Owners' equity	←Net income = Revenues − Expenses
+ Cash + Accounts Payable	

The entry is:

Dr. Cash	xx	
Cr. Accounts Payable		xx

In a similar way, decreases in current asset accounts are assumed to increase cash (for example, the collection of an accounts receivable), and decreases in current liability accounts are assumed to decrease cash (for example, the payment of an account payable). Of course these are only assumptions, but by assuming that cash is involved on the opposite side of every transaction, you will understand the nature of each of the adjustments made within the operating activities section of the statement of cash flows.

Virtually all financially healthy firms have growth in revenues as a financial objective. This growth usually requires increasing capacity to manufacture or sell products or provide services. Thus a principal investing activity is the acquisition of plant and equipment. The total cash used for investing activities is compared to the total cash provided by operating activities. If cash provided by operating activities exceeds cash used for investing activities, the indication is that the firm is generating the cash it needs to finance its growth, and that is probably positive. If the cash used for investing activities exceeds the cash provided by operating activities, the difference will have to be provided by financing activities or come from the cash balance carried forward from the prior year. This is not necessarily negative because investment requirements in any one year may be unusually high. If, however, cash used for investing activities exceeds cash provided by operating activities year after year, and the difference is provided from financing activities, a question about the firm's ability to generate additional funds from financing activities must be raised.

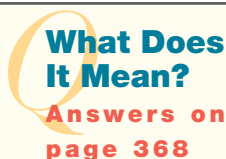
Financing activities include the issue and repayment of debt, the sale of stock and purchase of treasury stock, and the payment of dividends on stock. For most companies, it would be desirable to have annual cash dividends covered by the excess of cash provided from operating activities over cash used for investing activities.

After the big picture of the entity's cash flows has been obtained, it may be necessary to look at the details of each category of cash flows for clues that will explain the overall change. For example, if cash flows provided by operating activities are less than cash used for investing activities or if operating cash flows are decreasing even though profits are increasing, accounts receivable and/or inventories may be increasing at a higher rate than sales. This is a signal that the firm may have liquidity problems that would not necessarily be reflected by the change in working capital, the current ratio, or the acid-test ratio. These liquidity measures include other items besides cash, and the firm's inability to collect its accounts receivable and/or sell its inventory may artificially increase current assets and distort these relationships. Of course other interpretations of this same trend might also be possible, but the trend itself might not have been observed without a careful analysis of cash flow data.

The details of an entity's investing activities frequently describe its growth strategy. Besides investing in more plant and equipment, some firms acquire capacity by purchasing other companies or by investing in the securities of other companies. Occasionally a firm will sell some of its plant and equipment, in which case cash is provided. The reasons for and consequences of such a sale of assets are of interest to the financial statement user.

To illustrate these interpretation techniques, refer to [Intel's](#) Consolidated Statements of Cash Flows on page 689 in the annual report in the appendix. Note that a large add-back is made to net income each year for depreciation because cash is not disbursed for this expense. Note also that the net cash provided by operating activities exceeded net income by a substantial amount for each of the three years presented. Net cash provided by operating activities also exceeded the cash used for investing activities in all three years—a relationship generally considered desirable. [Intel](#) invested considerable amounts in property, plant, and equipment each year, and its purchases of available-for-sale investments were more or less offset by the total maturities and sales of these items when considering the three-year period as a whole. Financing activities resulted in a net use of cash in all three years. The company's repurchases and retirements of common stock have been significant as well. In relative terms, debt transactions have been immaterial. Cash dividends were paid in increasing amounts each year and exceeded 50% of net income for the first time in the company's history in 2008. The overall picture for [Intel](#) is good; net cash provided by operating activities is covering all of the firm's investing and financing requirements and is creating a surplus of cash for new investment opportunities.

The statement of cash flows provides useful information for owners, managers, employees, suppliers, potential investors, and others interested in the economic activities of the entity. This statement provides information that is difficult, if not impossible, to obtain from the other three financial statements alone.



5. What does it mean when the statement of cash flows shows a negative amount of cash provided by operating activities?
6. What does it mean when cash used for investing activities is greater than cash generated from operating activities?

In addition to the financial statements and annual report data, a wide array of other financial information is commonly provided on the Web sites of many large U.S.-based companies. Intel, for example, posts earnings releases, SEC filings, fundamental trading statistics, and information about its key investments in a user-friendly format. (See www.intel.com and click on Investor Relations at the bottom of the home page.)



**Business
on the
Internet**

Demonstration Problem

Visit the text Web site at www.mhhe.com/marshall9e to view a demonstration problem for this chapter.

Summary

This chapter has described the income statement and the statement of cash flows. The income statement summarizes the results of the firm's profit-generating or loss-generating activities for a fiscal period. The statement of cash flows explains the change in the firm's cash from the beginning to the end of the fiscal period by summarizing the cash effects of the firm's operating, investing, and financing activities during the period.

Revenues are reported at the beginning of the income statement. Revenues result from the sale of a product or the provision of a service, not necessarily from the receipt of cash. The revenues of most manufacturing and merchandising firms are called *sales*. Net sales, which is gross sales minus sales returns and allowances and cash discounts, is usually the first caption of the income statement. Service entities will describe the source of their revenues (such as rental fees or consulting fees).

Expenses are subtracted from revenues in the income statement. A significant expense for many firms is cost of goods sold. The actual calculation of cost of goods sold is determined by the system used to account for inventories. With a perpetual inventory system, cost can be determined and recognized when a product is sold. With a periodic inventory system, cost of goods sold is calculated at the end of the fiscal period using beginning and ending inventory amounts and the purchases (or cost of goods manufactured) amount. Sometimes cost of goods sold is reported separately and subtracted from net sales to arrive at gross profit or gross margin in what is called a *multiple-step income statement presentation*. Other firms will include cost of goods sold with operating expenses in a single-step income statement presentation.

Gross profit (or gross margin) is frequently expressed as a ratio. The gross profit ratio can be used to monitor profitability, set selling prices, and estimate ending inventory and cost of goods sold.

Selling, general, and administrative expenses are the costs of operating the firm. They are deducted from gross profit to arrive at operating income, an important measure of management performance.

Interest expense is usually shown as a separate item in the other income and expense category of the income statement. Other significant gains or losses will also be identified.

Income before income taxes is frequently reported as a subtotal before income tax expense is shown because taxes are a function of all items reported to this point in the income statement.

Net income, or net earnings, is reported in total and on a per share of outstanding common stock basis. If there is potential dilution from convertible debt, convertible preferred stock, or stock options, diluted earnings per share will also be reported.

To facilitate users' comparisons of net income with that of prior years and to provide a basis for future expectations, income or loss from discontinued operations and extraordinary items are reported separately in the income statement and on a per share basis.

The statement of cash flows shows the change in cash during the year and reports cash provided from or used by operating activities, investing activities, and financing activities.

The determination of cash flows from operating activities is essentially a conversion of the accrual accounting income statement to a cash basis income statement. The principal reasons net income doesn't affect cash directly are that not all accounts receivable from sales are collected in the fiscal period of the sale and not all of the expenses reported in the income statement result in the disbursement of cash in the fiscal period in which the expenses are incurred.

Investing activities include purchases of plant and equipment, investments in other companies, loans made to other entities, and the sale or collection of these assets.

Financing activities include issuance and redemption of bonds and stock, including treasury stock transactions, and cash dividends on stock.

There are two presentation formats for the statement of cash flows. The difference between the two is in the presentation of cash flows from operating activities. Most entities use the indirect method.

Interpretation of the statement of cash flows involves observing the relationship between the three broad categories of cash flows (operating activities, investing activities, and financing activities) and the change in the cash balance for the year. It is desirable to have cash provided from operating activities that is equal to or greater than cash used for investing activities, although large investment requirements in any one year may cause a reduction in the beginning-of-the-year cash balance. Cash can also be raised from financing activities to offset large investment requirements. The detailed activities of each cash flow category will be reviewed to assess their effect on the overall cash position of the firm. The statement of cash flows provides important information that is not easily obtained from the other financial statements.

Refer to the income statement and statement of cash flows for [Intel Corporation](#) in the appendix, and to these statements in other annual reports you may have, to observe content and presentation alternatives.

Key Terms and Concepts

basic earnings per share (p. 352) Net income available to common stockholders divided by the weighted average number of shares of common stock outstanding during the period.

cost of goods sold (p. 346) Cost of merchandise sold during the period; an expense deducted from net sales to arrive at gross profit.

cost of goods sold model (p. 347) The formula for calculating cost of goods sold by adding beginning inventory and purchases and subtracting ending inventory.

diluted earnings per share (p. 352) An amount less than basic earnings per share that assumes that additional shares of common stock have been issued pursuant to convertible debt, convertible preferred stock, and/or stock option plans.

- dilution (p. 354)** The reduction in “earnings per share of common stock” that may occur if convertible securities are actually converted to common stock and/or if additional shares of common stock are issued pursuant to a stock option plan.
- earned (p. 342)** A revenue recognition criterion that relates to completion of the revenue-generating activity.
- expenses (p. 345)** Outflows or other using up of assets or incurrences of liabilities during a period from delivering or producing goods, rendering services, or carrying out other activities that constitute the entity’s major operations.
- extraordinary item (p. 356)** A gain or loss from a transaction that both is unusual in nature and occurs infrequently; it is reported separately in the income statement.
- FOB destination (p. 344)** The shipping term that means that title passes from seller to buyer when the merchandise arrives at its destination.
- FOB shipping point (p. 344)** The shipping term that means that title passes from seller to buyer when the merchandise leaves the seller’s premises.
- freight collect (p. 344)** A freight payment alternative meaning that freight is payable when the merchandise arrives at its destination.
- freight prepaid (p. 344)** A freight payment alternative meaning that freight is paid by the shipper.
- gains (p. 344)** Increases in net assets from incidental transactions and other events affecting an entity during a period except those that result from revenues or investments by owners.
- gross margin (p. 348)** Another term for *gross profit*.
- gross margin ratio (p. 348)** Another term for *gross profit ratio*.
- gross profit (p. 348)** The difference between net sales and cost of goods sold. Sometimes called *gross margin*.
- gross profit ratio (p. 348)** The ratio of gross profit to net sales. Sometimes called *gross margin ratio*.
- income before income taxes (p. 352)** An income statement subtotal on which income tax expense is based.
- income from continuing operations (p. 356)** An income statement subtotal that is presented before income or loss from discontinued operations.
- income from operations (p. 350)** The difference between gross profit and operating expenses. Also called *operating income*.
- inventory cost-flow assumption (p. 346)** The application of FIFO, LIFO, weighted-average, or specific identification procedures to determine the cost of goods sold.
- inventory shrinkage (p. 346)** Inventory losses resulting from theft, deterioration, and record-keeping errors.
- losses (p. 346)** Decreases in net assets from incidental transactions and other events affecting an entity during a period except those that result from expenses or distributions to owners.
- matching principle (p. 345)** The concept that expenses incurred in generating revenues should be “matched” against revenues earned during some period of time, usually one year, in determining net income or loss for the period.
- multiple-step format (p. 354)** An income statement format that includes subtotals for gross profit, operating income, and income before taxes.
- net income (p. 352)** The excess of revenues and gains over expenses and losses for a fiscal period.
- net income attributable to noncontrolling interest (p. 357)** An income statement item representing the noncontrolling (minority) stockholders’ share of the earnings of a subsidiary that have been included in the consolidated income statement.
- net income attributable to (parent company name) (p. 357)** Net income, less “net income attributable to noncontrolling interest” in the consolidated income statement: for example, “Net income attributable to [Racers, Inc.](#)” Sometimes referred to as *net income attributable to controlling interest*.
- net sales (p. 343)** Gross sales, less sales discounts and sales returns and allowances.

operating expenses (p. 350) Expenses, other than cost of goods sold, incurred in the day-to-day activities of the entity.

operating income (p. 350) The difference between gross profit and operating expenses. Also referred to as *income from operations*.

other income and expenses (p. 351) An income statement category that includes interest expense, interest income, and gain or loss items not related to the principal operating activities of the entity.

percentage-of-completion method (p. 344) A method of recognizing revenue based on the completion percentage of a long-term construction project.

purchase returns and allowances (p. 347) Reductions in purchases from products returned to the supplier or adjustments in the purchase cost.

realization (p. 342) A revenue recognition criterion that relates to the receipt of cash or a claim to cash in exchange for the product or service.

revenues (p. 340) Inflows of cash or increases in other assets, or settlement of liabilities, during a period from delivering or producing goods, rendering services, or performing other activities that constitute the entity's major operations.

sales (p. 343) Revenues resulting from the sale of product.

sales mix (p. 348) The proportion of total sales represented by various products or categories of products.

sales returns and allowances (p. 343) Reductions in sales from product returns or adjustments in selling price.

shipping terms (p. 344) The description of the point at which title passes from seller to buyer.

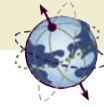
single-step format (p. 354) An income statement format that excludes subtotals such as gross profit and operating income.

statement of cash flows (p. 358) The financial statement that explains why cash changed during a fiscal period. Cash flows from operating, investing, and financing activities are shown in the statement.

ANSWERS TO What Does It Mean?

1. It means that although net income is not the literal bottom line on the income statement, many financial statement users consider it the most important amount on the income statement.
2. It means that to have the “big picture” of the entity’s results, one must look at more than the amounts opposite one or two captions. It is especially important to be aware of unusual items that may appear on the income statement.
3. It means that additional shares of common stock may be issued because of the existence of convertible bonds, convertible preferred stock, or stock options. Issuance of shares for these items could reduce earnings per share of common stock and the market value of the common stock.
4. It means that future income statements will not be affected by the results of the discontinued operations and that by highlighting this item it should be possible for a financial statement user to make adjustments when anticipating future results for the firm.
5. It means that the firm has not generated cash from its operations—a situation that should not exist for long. To keep operating, the firm will need to have generated cash from investing or financing activities and/or used cash on hand at the beginning of the reporting period.
6. It means that during the year, the firm may have made some significant investments financed by creditors or owners and/or used cash on hand at the beginning of the reporting period.

Self-Study Material



Visit the text Web site at www.mhhe.com/marshall9e to take a self-study quiz for this chapter.

Matching I Following are a number of the key terms and concepts introduced in the chapter, along with a list of corresponding definitions. Match the appropriate letter for the key term or concept to each definition provided (items 1–10). Note that not all key terms and concepts will be used. Answers are provided at the end of this chapter.

- | | |
|---------------------------------|---|
| a. Revenues | k. Freight collect |
| b. Realization | l. Gross profit (or gross margin) |
| c. Earned | m. Gross profit ratio (or gross margin ratio) |
| d. Sales | n. Sales mix |
| e. Sales returns and allowances | o. Operating expenses |
| f. Net sales | p. Income from operations |
| g. Shipping terms | q. Gains |
| h. FOB destination | r. Income before income taxes |
| i. FOB shipping point | s. Net income |
| j. Freight prepaid | t. Income before extraordinary items |
-
- ___ 1. Reductions in sales from product returns or adjustments in selling price.
- ___ 2. A freight payment alternative meaning that freight is payable when the merchandise arrives at its destination.
- ___ 3. The difference between gross profit and operating expenses.
- ___ 4. The description of when title passes and whether buyer or seller is responsible for freight charges.
- ___ 5. The difference between net sales and cost of goods sold.
- ___ 6. A revenue recognition criterion that relates to the receipt of cash in exchange for the product or service.
- ___ 7. Increases in net assets from incidental transactions and other events affecting an entity during a period except those that result from revenues or investments by owners.
- ___ 8. The shipping term for passage of title from seller to buyer when the merchandise leaves the seller's premises.
- ___ 9. Gross sales less sales discounts and sales returns and allowances.
- ___ 10. The shipping term for passage of title from seller to buyer when the merchandise arrives at its destination.

Matching II Following are a number of the key terms and concepts introduced in the chapter, along with a list of corresponding definitions. Match the appropriate letter for the key term or concept to each definition provided (items 1–10). Note that not all key terms and concepts will be used. Answers are provided at the end of this chapter.

- | | |
|------------------------------------|---|
| a. Percentage of completion method | k. Dilution |
| b. Physical inventory | l. Basic earnings per share |
| c. Expenses | m. Diluted earnings per share |
| d. Cost of goods sold | n. Extraordinary item |
| e. Matching principle | o. Discontinued operations |
| f. Inventory cost-flow assumption | p. Net income attributable to noncontrolling interest |
| g. Inventory shrinkage | q. Single-step format |
| h. Perpetual system | r. Multiple-step format |
| i. Periodic system | s. Statement of cash flows |
| j. Cost of goods sold model | |
-
- _____ 1. The financial statement that explains why cash changed during the fiscal period.
- _____ 2. Inventory losses resulting from theft, deterioration, and record-keeping errors.
- _____ 3. Outflows or other using up of assets or incurrence of a liability during a period from delivering or producing goods, rendering services, or carrying out other activities that constitute the entity's major operations.
- _____ 4. A gain or loss from a transaction that both is unusual in nature and occurs infrequently, and is reported separately on the income statement.
- _____ 5. An income statement format that includes subtotals for gross profit, operating income, and income before taxes.
- _____ 6. An expense deducted from net sales to arrive at gross profit.
- _____ 7. The reduction in earnings per share of common stock that can occur if convertible securities are actually converted to common stock.
- _____ 8. An income statement item representing the noncontrolling stockholders' share of the earnings of a subsidiary that have been included in the consolidated income statement.
- _____ 9. Achieves a fair presentation of the results of a firm's operations during a period by requiring the deduction of all expenses incurred in generating that period's revenues from the revenues earned in the period.
- _____ 10. Net income available to the common stockholders divided by the average number of shares of common stock outstanding during the period.

Multiple Choice For each of the following questions, circle the best responses. Answers are provided at the end of this chapter.

1. All of the following are appropriate revenue accounts *except*
 - a. Fees.
 - b. Sales.
 - c. Gross Profit.
 - d. Service Revenues.
 - e. Interest Revenues.

2. Extraordinary items include all of the following *except*
 - a. utilization of tax loss carryforwards.
 - b. litigation settlements.

- c. earthquake losses.
 - d. All of the above are examples of extraordinary items.
3. Michael sells Melissa his grand piano and wishes to avoid both the cost of shipping it and the risk of loss while the piano is in transit. He should send the piano
- a. FOB shipping point, freight collect.
 - b. FOB shipping point, freight prepaid.
 - c. FOB destination, freight collect.
 - d. FOB destination, freight prepaid.
4. The periodic and perpetual inventory systems share the following similarity:
- a. The Cost of Goods Sold account is adjusted daily as sales are made under both systems.
 - b. The Purchases account is used under both systems.
 - c. Both systems can be used in conjunction with any of the cost-flow assumptions (FIFO, LIFO, or weighted average).
 - d. Under both systems, it is necessary to estimate gross profit ratios for sales made during the most recent month.
 - e. The cost of purchases is determined by an annual physical count under both systems.
5. Bublit Company had net sales of \$700,000 for fiscal 2010, cost of goods sold of \$413,000, and interest expense amounting to \$112,000. What would be the estimated gross profit for 2011 if sales were \$800,000 as Bruce predicts or if sales were \$1,100,000 as Rita predicts?
- a. \$200,000 or \$275,000, respectively.
 - b. \$275,000 or \$575,000, respectively.
 - c. \$328,000 or \$451,000, respectively.
 - d. \$387,000 or \$687,000, respectively.
 - e. \$472,000 or \$649,000, respectively.
6. Because of their importance to financial statement users, certain expenses are normally reported as separate items on the income statement (especially when significant in amount). Which of the following expenses is *not* normally reported as a separate item?
- a. Advertising Expense.
 - b. Cost of Goods Sold.
 - c. Interest Expense.
 - d. Income Tax Expense.
7. Earnings per share calculations are required on the income statement for
- a. Cost of goods sold, depreciation expense, and income from continuing operations.
 - b. Discontinued operations, depreciation expense, and net income.
 - c. Extraordinary items, income from continuing operations, and discontinued operations.

- d. Income tax expense, extraordinary items, and net income.
 - e. Cost of goods sold, discontinued operations, and extraordinary items.
8. In what circumstance is it proper to recognize revenues before a sales transaction has occurred?
- a. When management has a policy to do so.
 - b. When the conservatism principle applies.
 - c. When the going concern principle requires the recognition of revenues for cash payments received in advance from customers.
 - d. When the ultimate sales of the goods is assured because the products have readily determinable prices and can be sold without significant effort.
 - e. When it is certain that competitors will raise their prices in the near future.
9. Which of the following is *not* one of the three broad categories presented in the statement of cash flows?
- a. Financing activities.
 - b. Operating activities.
 - c. Income activities.
 - d. Investing activities.
10. Which of the following transactions would *not* be shown under the operating activities category of the statement of cash flows (using the direct method)?
- a. Cash received from customers.
 - b. Cash paid to purchase land.
 - c. Cash paid for interest and taxes.
 - d. Cash paid to merchandise suppliers.
 - e. Cash paid to employees for salaries.



Exercises

Exercise 9.1 **Calculate earned revenues** Big Blue University has a fiscal year that ends on June 30. The 2010 summer session of the university runs from June 9 through July 28. Total tuition paid by students for the summer session amounted to \$112,000.

LO 1

Required:

- a. How much revenue should be reflected in the fiscal year ended June 30, 2010? Explain your answer.
- b. Would your answer to part a be any different if the university had a tuition refund policy that no tuition would be refunded after the end of the third week of summer session classes? Explain your answer.

Exercise 9.2 **Calculate earned revenues** Kirkland Theater sells season tickets for six events at a price of \$180. In pricing the tickets, the planners assigned the leadoff event a value of \$45 because the program was an expensive symphony orchestra. The last five events were priced equally; 1,200 season tickets were sold for the 2010 season.

LO 1

Required:

- Calculate the theater's earned revenue after the first three events have been presented.
- About 95% of the season ticket holders attended the first event. Subsequent events were attended by about 80% of the season ticket holders. To what extent, if any, should the attendance data impact revenue recognition? Explain your answer.

Effects of inventory error If the ending inventory of a firm is overstated by \$50,000, by how much and in what direction (overstated or understated) will the firm's operating income be misstated? (*Hint: Use the cost of goods sold model, enter hypothetically "correct" data, and then reflect the effects of the ending inventory error and determine the effect on cost of goods sold.*)

Exercise 9.3
LO 2

Effects of inventory error Assume that the ending inventory of a merchandising firm is overstated by \$40,000.

Exercise 9.4
LO 2
Required:

- By how much and in what direction (overstated or understated) will the firm's cost of goods sold be misstated?
- If this error is not corrected, what effect will it have on the subsequent period's operating income?
- If this error is not corrected, what effect will it have on the total operating income of the two periods (the period in which there is an error and the subsequent period) combined?

Calculate gross profit ratio and cost of goods sold Refer to the consolidated statements of income on page 687 of the [Intel Corporation](#) annual report in the appendix.

Exercise 9.5
LO 2, 3
Required:

- Calculate the gross profit ratio for each of the past three years.
- Assume that Intel's net revenues for the first four months of 2009 totaled \$12.6 billion. Calculate an estimated cost of goods sold and gross profit for the four months.



Calculate gross profit, cost of goods sold, and selling price MBI, Inc., had sales of \$141.6 million for fiscal 2010. The company's gross profit ratio for that year was 31.6%.

Exercise 9.6
LO 2, 3
Required:

- Calculate the gross profit and cost of goods sold for MBI, Inc., for fiscal 2010.
- Assume that a new product is developed and that it will cost \$1,860 to manufacture. Calculate the selling price that must be set for this new product if its gross profit ratio is to be the same as the average achieved for all products for fiscal 2010.
- From a management viewpoint, what would you do with this information?

Operating income versus net income If you were interested in evaluating the profitability of a company and could have only limited historical data, would you prefer to know operating income or net income for the past five years? Explain your answer.

Exercise 9.7
LO 5

Exercise 9.8
LO 5



Operating income versus net income Refer to the selected financial data (five-year financial summary) on page 685 of the [Intel Corporation](#) annual report in the appendix.

Required:

Compare the trend of the operating income data with the trend of net income data from 2004 through 2008. Which series of data is more meaningful? Explain your answer.

Exercise 9.9
LO 7

Calculate basic EPS Ringemup, Inc., had net income of \$473,400 for its fiscal year ended October 31, 2010. During the year the company had outstanding 38,000 shares of \$4.50, \$50 par value preferred stock, and 105,000 shares of common stock.

Required:

Calculate the basic earnings per share of common stock for fiscal 2010.

Exercise 9.10
LO 7

Calculate basic EPS, and explain the EPS effect of convertible preferred Thrifty Co. reported net income of \$465,000 for its fiscal year ended January 31, 2011. At the beginning of that fiscal year, 200,000 shares of common stock were outstanding. On October 31, 2010, an additional 60,000 shares were issued. No other changes in common shares outstanding occurred during the year. Also during the year the company paid the annual dividend on the 25,000 shares of 7%, \$40 par value preferred stock that were also outstanding the entire year.

Required:

- Calculate basic earnings per share of common stock for the year ended January 31, 2011.
- If Thrifty Co.'s preferred stock were convertible into common stock, what additional calculation would be required?

Exercise 9.11
LO 10

Accrual to cash flows For each of the following items, calculate the cash sources or cash uses that should be recognized on the statement of cash flows for Baldin Co. for the year ended December 31, 2010:

- Sales on account (all are collectible) amounted to \$760,000, and accounts receivable decreased by \$24,000. How much cash was collected from customers?
- Income tax expense for the year was \$148,000, and income taxes payable decreased by \$34,000. How much cash was paid for income taxes?
- Cost of goods sold amounted to \$408,000, accounts payable increased by \$19,000, and inventories increased by \$14,000. How much cash was paid to suppliers?
- The net book value of buildings increased by \$240,000. No buildings were sold, and depreciation expense for the year was \$190,000. How much cash was paid to purchase buildings?

Exercise 9.12
LO 10

Cash flows to accrual For each of the following items, calculate the amount of revenue or expense that should be recognized on the income statement for Pelkey Co. for the year ended December 31, 2010:

- Cash collected from customers during the year amounted to \$365,000, and accounts receivable increased by \$30,000. How much were sales on account for the year ended December 31, 2010?

- b. Cash payments for income taxes during the year were \$232,000, and income taxes payable increased by \$36,000. How much was income tax expense?
- c. Cash paid to suppliers during the year amounted to \$164,000, accounts payable decreased by \$23,500, and inventories decreased by \$10,000. How much was cost of goods sold?
- d. The net book value of buildings increased by \$125,000. No buildings were sold, and a new building costing \$210,000 was purchased during the year. How much was depreciation expense?

Income statement format and EPS disclosures Refer to the consolidated statements of income on page 687 of the [Intel Corporation](#) annual report in the appendix.

Exercise 9.13

LO 6, 7

Required:

- a. Does [Intel](#) use the single-step format or the multiple-step format? Which format do you prefer? Explain your answer.
- b. Refer to the basic and diluted earnings per share data on page 687 and the related note disclosures on page 731. Explain why this disclosure is appropriate.



Statement of cash flows analysis Refer to the consolidated statements of cash flows on page 689 of the [Intel Corporation](#) annual report in the appendix.

Exercise 9.14

LO 11

Required:

- a. Identify the two most significant sources of cash from operating activities during 2008. How much of a cash source amount do these items represent?
- b. What were the firm's three most significant investing activities during 2008, and how much cash did they use or generate?
- c. Identify the three most significant financing activities during 2008. What was the net effect on cash of these items?



Statement of cash flows analysis Refer to the statement of cash flows in the annual report you have obtained either as a result of completing Exercise 1.1 or otherwise.

Exercise 9.15

LO 10, 11

Required:

- a. Which method, direct or indirect, is used in the statement?
- b. List the principal sources and uses of cash for this firm.
- c. Evaluate the change in cash. Has the firm generated most of its cash requirements from operations, or has it had to borrow extensively? Has the firm's uses of cash been balanced between investment and dividends?
- d. Has the cash balance been increasing or decreasing? What seem to be the implications of this pattern for dividends?

Income statement analysis Refer to the income statement in the annual report you have obtained either as a result of completing Exercise 1.1 or otherwise.

Exercise 9.16

LO 3, 5, 7, 8

Required:

- a. Which method, single-step or multiple-step, is used in the statement?
- b. Calculate the gross profit ratio for the years reported.
- c. Is operating income increasing or decreasing for the years reported?
- d. Does the company report any unusual items? If so, what are the effects of these items on net income and earnings per share?

Problems

- Problem 9.17** **Calculate operating income and net income** The following information is available from the accounting records of Manahan Co. for the year ended December 31, 2010:
- LO 5**

Net cash provided by financing activities	\$112,000
Dividends paid.	18,000
Extraordinary loss from flood, net of tax savings of \$35,000	105,000
Income tax expense	26,000
Other selling expenses.	13,000
Net sales	644,000
Advertising expense	45,000
Accounts receivable	62,000
Cost of goods sold	368,000
General and administrative expenses.	143,000

Required:

- Calculate the operating income for Manahan Co. for the year ended December 31, 2010.
- Calculate the company's net income for 2010.

- Problem 9.18** **Calculate operating income and net income** The following information is available from the accounting records of Spenser Co. for the year ended December 31, 2010:
- LO 5**

Selling, general, and administrative expenses	\$ 51,000
Accounts payable	85,000
Extraordinary gain from lawsuit settlement, net of tax expense of \$28,000.	104,000
Research and development expenses.	37,000
Loss from discontinued operations net of tax savings of \$5,000	16,000
Provision for income taxes.	74,000
Net sales	579,000
Interest expense	64,000
Net cash provided by operations	148,000
Cost of goods sold	272,000

Required:

- Calculate the operating income for Spenser Co. for the year ended December 31, 2010.
- Calculate the company's net income for 2010.

- Problem 9.19** **Use gross profit ratio to calculate inventory loss** Franklin Co. has experienced gross profit ratios for 2010, 2009, and 2008 of 33%, 30%, and 31%, respectively. On April 3, 2011, the firm's plant and all of its inventory were destroyed
- LO 3**

by a tornado. Accounting records for 2011, which were available because they were stored in a protected vault, showed the following:



Sales from January 1 thru April 2	\$142,680
January 1 inventory amount.	63,590
Purchases of inventory from January 1 thru April 2	118,652

Required:

Calculate the amount of the insurance claim to be filed for the inventory destroyed in the tornado. (*Hint: Use the cost of goods sold model and a gross profit ratio that will result in the largest claim.*)

Use gross profit ratio to calculate inventory loss On April 8, 2010, a flood destroyed the warehouse of Stuco Distributing Co. From the waterlogged records of the company, management was able to determine that the firm's gross profit ratio had averaged 35% for the past several years and that the inventory at the beginning of the year was \$209,600. It also was determined that during the year until the date of the flood, sales had totaled \$427,200 and purchases totaled \$242,920.

Problem 9.20

LO 3



Required:

Calculate the amount of inventory loss from the flood.

Cash flows from operations—indirect method The financial statements of Simon Co. include the following items (amounts in thousands):

Problem 9.21

LO 10

	For the Year Ended December 31, 2011	
Income Statement		
Net income	\$420	
Depreciation and amortization expense	320	
<hr/>		
<hr/>		
	At December 31	
Balance Sheets	2011	2010
Accounts receivable	\$125	\$170
Inventory	170	150
Accounts payable	80	90
Income taxes payable	50	15



Required:

- Calculate the net cash flow provided by operations for Simon Co. for the year ended December 31, 2011.
- Explain why net income is different from the net cash provided by operations.

Problem 9.22

LO 10



Prepare a statement of cash flows—indirect method The financial statements of Pouchie Co. included the following information for the year ended December 31, 2010 (amounts in millions):

Depreciation and amortization expense	\$ 520
Cash dividends declared and paid	660
Purchase of equipment	1,640
Net income	768
Beginning cash balance	240
Proceeds of common stock issued	296
Proceeds from sale of building (at book value)	424
Accounts receivable increase	32
Ending cash balance	80
Inventory decrease	76
Accounts payable increase	88

Required:

Complete the following statement of cash flows, using the indirect method:

POUCHIE CO. Statement of Cash Flows For the Year Ended December 31, 2010	
Cash Flows from Operating Activities:	
Net income	\$ 768
Add (deduct) items not affecting cash:	
_____	
_____	
_____	
_____	
Net cash provided (used) by operating activities	\$ _____
Cash Flows from Investing Activities:	
_____	
_____	
Net cash provided (used) by investing activities	\$ _____
Cash Flows from Financing Activities:	
_____	
_____	
Net cash provided (used) by financing activities	\$ _____
Net increase (decrease) in cash for the year	\$ _____
Cash balance, January 1, 2010	240
Cash balance, December 31, 2010	\$ 80

Problem 9.23

LO 10

Cash flows from operating, investing, and financing activities—direct method The following information is available from Bromfield Co.'s accounting records for the year ended December 31, 2010 (amounts in millions):

Cash dividends declared and paid	\$ 340
Interest and taxes paid	90
Collections from customers	1,350
Payment of long-term debt	220
Purchase of land and buildings	170
Cash paid to suppliers and employees	810
Issuance of preferred stock	300
Proceeds from the sale of equipment	40

Required:

- Calculate the net cash provided (used) by operating activities for Bromfield Co. for the year ended December 31, 2010.
- Calculate the net cash provided (used) by investing activities.
- Calculate the net cash provided (used) by financing activities.
- Calculate the net increase (decrease) in cash for the year.

Cash flows from operating, investing, and financing activities—direct method The following information is available from Gray Co.'s accounting records for the year ended December 31, 2010 (amounts in millions):

Problem 9.24
LO 10

Cash dividends declared and paid	\$ 350
Retirement of bonds payable at maturity	200
Interest and taxes paid	150
Proceeds of common stock issued	550
Proceeds from the sale of land	125
Collections from customers	3,175
Cash paid to suppliers and employees	?
Purchase of buildings and equipment	?

Required:

- The net cash provided by operating activities for Gray Co. for the year ended December 31, 2010, is \$1,225 million. Calculate the cash paid to suppliers and employees.
- The increase in cash for the year was \$250 million. Calculate the amount of cash used to purchase buildings and equipment. Your answer to part **a** should be considered in your calculation. (*Hint: Set up a model of the statement of cash flows to determine the net cash provided [used] by operating and investing activities, and then solve for the missing amounts.*)

Complete balance sheet and prepare a statement of cash flows—indirect method Following is a partially completed balance sheet for Hoeman, Inc., at December 31, 2011, together with comparative data for the year ended December 31, 2010. From the statement of cash flows for the year ended December 31, 2011, you determine the following:

Problem 9.25
LO 10, 11


- Net income for the year ended December 31, 2011, was \$94,000.
- Dividends paid during the year ended December 31, 2011, were \$67,000.

- Accounts receivable decreased \$10,000 during the year ended December 31, 2011.
- The cost of new buildings acquired during 2011 was \$125,000.
- No buildings were disposed of during 2011.
- The land account was not affected by any transactions during the year, but the fair market value of the land at December 31, 2011, was \$178,000.

HOEMAN, INC. Comparative Balance Sheets At December 31, 2011 and 2010		
	2011	2010
Assets		
Current assets:		
Cash	\$ 52,000	\$ 46,000
Accounts receivable		134,000
Inventory	156,000	176,000
Total current assets	<u>\$</u>	<u>\$ 356,000</u>
Land	\$	140,000
Buildings		290,000
Less: Accumulated depreciation	(120,000)	(105,000)
Total land and buildings	<u>\$</u>	<u>\$ 325,000</u>
Total assets	<u><u>\$</u></u>	<u><u>\$ 681,000</u></u>
Liabilities		
Current liabilities:		
Accounts payable	\$	\$ 197,000
Note payable	155,000	124,000
Total current liabilities	<u>\$ 322,000</u>	<u>\$ 321,000</u>
Long-term debt	<u>\$</u>	<u>\$ 139,000</u>
Owners' Equity		
Common stock	\$ 50,000	\$ 45,000
Retained earnings		176,000
Total owners' equity	<u>\$</u>	<u>\$ 221,000</u>
Total liabilities and owners' equity	<u><u>\$</u></u>	<u><u>\$ 681,000</u></u>

Required:

- Complete the December 31, 2011, balance sheet. (*Hint: Long-term debt is the last number to compute to make the balance sheet balance.*)
- Prepare a statement of cash flows for the year ended December 31, 2011, using the indirect method.

Problem 9.26
LO 10, 11

Complete balance sheet and prepare a statement of changes in retained earnings Following is a statement of cash flows (indirect method) for Hartford, Inc., for the year ended December 31, 2011. Also shown is a partially completed comparative balance sheet as of December 31, 2011 and 2010:

HARTFORD, INC.
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash Flows from Operating Activities:

Net income	\$ 9,000
Add (deduct) items not affecting cash:	
Depreciation expense	45,000
Decrease in accounts receivable	23,000
Increase in inventory	(7,000)
Increase in notes payable	12,000
Decrease in accounts payable	(6,000)
Net cash provided by operating activities	<u>\$ 76,000</u>

Cash Flows from Investing Activities:

Purchase of equipment	\$(50,000)
Purchase of buildings	(48,000)
Net cash used by investing activities	<u>\$(98,000)</u>

Cash Flows from Financing Activities:

Proceeds from short-term debt	5,000
Cash used for retirement of long-term debt	\$(25,000)
Proceeds from issuance of common stock	10,000
Payment of cash dividends on common stock	(3,000)
Net cash used by financing activities	<u>\$(13,000)</u>
Net decrease in cash for the year	<u><u>\$(35,000)</u></u>

HARTFORD, INC.
Comparative Balance Sheets
At December 31, 2011 and 2010

	2011	2010
Assets		
Current assets:		
Cash	\$	\$ 88,000
Accounts receivable		73,000
Inventory	56,000	
Total current assets	<u>\$</u>	<u>\$</u>
Land	\$	\$ 40,000
Buildings and equipment	260,000	
Less: Accumulated depreciation		(123,000)
Total land, buildings, and equipment	<u>\$</u>	<u>\$</u>
Total assets	<u>\$</u>	<u>\$</u>
Liabilities		
Current liabilities:		
Accounts payable	\$	\$ 29,000
Short-term debt	32,000	
Notes payable		36,000
Total current liabilities	<u>\$</u>	<u>\$</u>
Long-term debt	\$ 85,000	\$
Owners' Equity		
Common stock	\$ 40,000	\$
Retained earnings		
Total owners' equity	<u>\$</u>	<u>\$</u>
Total liabilities and owners' equity	<u>\$</u>	<u>\$</u>

Required:

- Complete the December 31, 2011 and 2010, balance sheets.
- Prepare a statement of changes in retained earnings for the year ended December 31, 2011.

Problem 9.27**LO 10, 11**

Prepare balance sheet and retained earnings statement using statement of cash flows data Following are a statement of cash flows (indirect method) for Harris, Inc., for the year ended December 31, 2011, and the firm's balance sheet at December 31, 2010:

HARRIS, INC. Statement of Cash Flows For the Year Ended December 31, 2011	
Cash Flows from Operating Activities:	
Net income	\$ 13,000
Add (deduct) items not affecting cash:	
Depreciation expense	29,000
Increase in accounts receivable	(6,000)
Decrease in merchandise inventory	30,000
Increase in accounts payable	3,000
Net cash provided by operating activities	\$ 69,000
Cash Flows from Investing Activities:	
Purchase of buildings	(90,000)
Proceeds from sale of land at its cost	7,000
Net cash used by investing activities	\$(83,000)
Cash Flows from Financing Activities:	
Payment of short-term debt	(4,000)
Payment of notes payable	(9,000)
Proceeds from issuance of long-term debt	15,000
Proceeds from issuance of common stock	8,000
Payment of cash dividends on common stock	(5,000)
Net cash provided by financing activities	\$ 5,000
Net decrease in cash for the year	\$ (9,000)

HARRIS, INC. Balance Sheet At December 31, 2010	
Assets	
Cash	\$ 15,000
Accounts receivable	61,000
Merchandise inventory	76,000
Total current assets	\$152,000
Land	34,000
Buildings	118,000
Less: Accumulated depreciation	(72,000)
Total land and buildings	\$ 80,000
Total assets	\$232,000
(continued)	

<i>(concluded)</i>	
Liabilities	
Accounts payable	\$ 58,000
Short-term debt	16,000
Notes payable	<u>33,000</u>
Total current liabilities	\$107,000
Long-term debt	<u>50,000</u>
Owners' Equity	
Common stock, no par	\$ 20,000
Retained earnings	<u>55,000</u>
Total owners' equity	\$ <u>75,000</u>
Total liabilities and owners' equity	<u><u>\$232,000</u></u>

Required:

- Using the preceding information, prepare the balance sheet for Harris, Inc., at December 31, 2011.
- Prepare a statement of changes in retained earnings for the year ended December 31, 2011.

Prepare statement of cash flows (indirect method) using balance sheet data Following are comparative balance sheets for Millco, Inc., at January 31 and February 28, 2011:

Problem 9.28**LO 10, 11**

MILLCO, INC. Balance Sheets February 28 and January 31, 2011		
	February 28	January 31
Assets		
Cash	\$ 42,000	\$ 37,000
Accounts receivable	64,000	53,000
Merchandise inventory	<u>81,000</u>	<u>94,000</u>
Total current assets	\$187,000	\$184,000
Plant and equipment:		
Production equipment	166,000	152,000
Less: Accumulated depreciation	<u>(24,000)</u>	<u>(21,000)</u>
Total assets	<u><u>\$329,000</u></u>	<u><u>\$315,000</u></u>
Liabilities		
Accounts payable	\$ 37,000	\$ 41,000
Short-term debt	44,000	44,000
Other accrued liabilities	<u>21,000</u>	<u>24,000</u>
Total current liabilities	\$102,000	\$109,000
Long-term debt	<u>33,000</u>	<u>46,000</u>
Total liabilities	<u><u>\$135,000</u></u>	<u><u>\$155,000</u></u>
Owners' Equity		
Common stock, no par value, 40,000 shares authorized, 30,000 and 28,000 shares issued, respectively	\$104,000	\$ 96,000
Retained earnings:		
Beginning balance	\$ 64,000	\$ 43,000
Net income for month	36,000	29,000
Dividends	<u>(10,000)</u>	<u>(8,000)</u>
Ending balance	\$ <u>90,000</u>	\$ <u>64,000</u>
Total owners' equity	<u><u>\$194,000</u></u>	<u><u>\$160,000</u></u>
Total liabilities and owners' equity	<u><u>\$329,000</u></u>	<u><u>\$315,000</u></u>

Required:

Prepare a statement of cash flows that explains the change that occurred in cash during the month. You may assume that the change in each balance sheet amount is due to a single event (for example, the change in the amount of production equipment is not the result of both a purchase and sale of equipment). (*Hints: What is the purpose of the statement of cash flows? How is this purpose accomplished?*) Use the space to the right of the January 31 data to enter the difference between the February 28 and January 31 amounts of each balance sheet item; these are the amounts that will be in your solution.

**Case**

Case 9.29 Using cash flow information—The Coca-Cola Company Following are comparative statements of cash flows, as reported by [The Coca-Cola Company](#) in its 2008 annual report:

LO 11

THE COCA-COLA COMPANY AND SUBSIDIARIES Consolidated Statements of Cash Flows Year Ended December 31 (in millions)			
	2008	2007	2006
Operating Activities (details omitted)			
Net cash provided by operating activities	\$ 7,571	\$ 7,150	\$ 5,957
Investing Activities			
Acquisitions and investments, principally beverage and bottling companies and trademarks	(759)	(5,653)	(901)
Purchases of other investments	(240)	(99)	(82)
Proceeds from disposals of bottling companies and other investments	479	448	640
Purchases of property, plant, and equipment	(1,968)	(1,648)	(1,407)
Proceeds from disposals of property, plant, and equipment	129	239	112
Other investing activities	(4)	(6)	(62)
Net cash used in investing activities	(2,363)	(6,719)	(1,700)
Financing Activities			
Issuances of debt	4,337	9,979	617
Payments of debt	(4,308)	(5,638)	(2,021)
Issuances of stock	586	1,619	148
Purchases of stock for treasury	(1,079)	(1,838)	(2,416)
Dividends	(3,521)	(3,149)	(2,911)
Net cash provided by (used in) financing activities	(3,985)	973	\$ (6,583)
Effect of Exchange Rate Changes on Cash and Cash Equivalents	(615)	249	65
Cash and Cash Equivalents			
Net increase (decrease) during the year	608	1,653	(2,261)
Balance at beginning of the year	4,093	2,440	4,701
Balance at end of year	\$ 4,701	\$ 4,093	\$ 2,440

Required:

- a. Briefly review the consolidated statements of cash flows, and then provide an overall evaluation of the “big picture” during the three years presented for **Coca-Cola**. Have operating cash flows been sufficient to meet investing needs and to pay dividends?
- b. Were there significant changes to any of the specific line-item details that you think would require further explanation or analysis?

Answers to Self-Study Material

Matching I: 1. e, 2. k, 3. p, 4. g, 5. l, 6. b, 7. q, 8. i, 9. f, 10. h

Matching II: 1. s, 2. g, 3. c, 4. n, 5. r, 6. d, 7. k, 8. p, 9. e, 10. l

Multiple choice: 1. c, 2. d, 3. a, 4. c, 5. c, 6. a, 7. c, 8. d, 9. c, 10. b