

## Introducing Financial Statements and Transaction Analysis

### LEARNING OBJECTIVES

- LO1** Describe information conveyed by the financial statements. (p. 2-3)
- LO2** Explain and illustrate linkages among the four financial statements. (p. 2-20)
- LO3** Illustrate use of the financial statement effects template to summarize accounting transactions. (p. 2-22)

### APPLE

In 1985, the board of directors of **Apple** along with the new CEO John Sculley, dismissed Steve Jobs, Apple's co-founder. Fast forward 12 years—Apple is struggling to survive. After a series of crippling financial losses, the company's stock price is at an all-time low. In a complete about-face, the board asks Steve Jobs to return as interim CEO to begin a critical restructuring of the company's product line. True to form, Jobs shows up at his first meeting with Apple senior executives wearing shorts, sneakers, and a few days' beard growth. Sitting in a swivel chair and spinning slowly, Jobs begins quizzing the executives. "O.K., tell me what's wrong with this place," asks Jobs. Mumbled replies and embarrassed looks ensue. Jobs cuts them short and jumps up: "It's the products! So what's wrong with the products?" Again, more weak answers and again Jobs cut them off. "The products SUCK!" he roars. "There's no sex in them anymore!"

Jobs was right—Apple was mired in a sea of problems, many stemming from a weak product line. The company's decision to design proprietary software that was often incompatible with Windows had relegated Apple to a niche player in the highly competitive, low-margin PC business. Years before, **Microsoft** had replicated the Mac operating system and licensed the software to PC manufacturers such as **Dell**. Apple's cumulative profit from 2001-2003 was an anemic \$109 million and its prospects were dim.

That was then. This is now. Apple's iPod sales now surpass \$8 billion annually, one-third of the company's total sales. Accompanying the meteoric rise of its music player, Apple's iTunes now accounts for over 10% of total sales.

Apple's shares (ticker: AAPL) traded around \$100 in late 2008, a staggering 25 times the \$4 they fetched ten years earlier when Jobs rejoined the team. Indeed, Apple's stock has doubled in price in the past two years, as the following price chart illustrates. The total stock market value of Apple stock (called the market capitalization or market cap) exceeded \$130 billion in late 2008.



This module defines and explains the components of each financial statement: the balance sheet, the income statement, the statement of cash flows, and the statement of stockholders' equity. Let's begin with a sneak preview of Apple's financial statements.

Apple's balance sheet is very liquid as many of its assets can be readily converted to cash. Indeed, Apple holds over 60% of its assets in cash and marketable securities. Liquidity is important for companies like Apple that must react quickly to opportunities and changing market conditions. Like other technology companies, much of Apple's production is subcontracted. Consequently, Apple's property, plant and equipment make up only 7% of its assets.



## The funnest iPod ever



On the financing side of its balance sheet, over one-half of Apple's resources come from owner financing: from common stock sold to shareholders and from past profits that have been reinvested in the business. Technology companies such as Apple, which have uncertain product life-cycles and highly volatile cash flows, strive to avoid high debt levels that might cause financial problems in a business downturn. Apple's nonowner financing consists of low-cost credit from suppliers (accounts payable) and unpaid overhead expenses (accrued liabilities).

Consider Apple's income statement: driven by the popularity and high profit margins of iPods, Apple recently reported over \$4.4 billion of operating income. This is impressive given that Apple spends three cents of every sales dollar on research and development and runs expensive advertising campaigns.

Yet, companies cannot live by profits alone. It is cash that pays bills. Profits and cash flow reflect two different concepts, each providing a different perspective on company performance. Apple generated over \$5.4 billion of cash flow from operating activities, over 1.5 times its profit level. This is due to noncash expenses included on Apple's income statement and effective management of its balance sheet. We review Apple's cash flows in this module.

Apple pays no dividends and its newly issued common stock relates primarily to executive stock options. These capital transactions are reported in the statement of stockholders' equity.

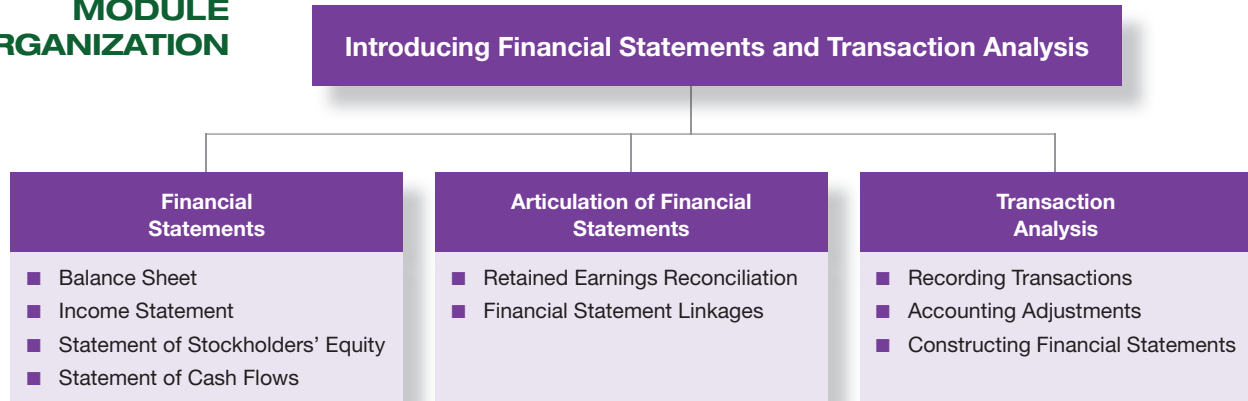
While it is important to understand what is reported in each of the four financial statements, it is also impor-

tant to know what is *not* reported. To illustrate, *Fortune* reported that "Jobs cut a deal with the Big Five record companies . . . to sell songs on iTunes, but they were afraid of Internet piracy. So Jobs promised to wrap their songs in Apple's *FairPlay*—the only copy-protection software that is iPod-compatible. Other digital music services such as Yahoo Music Unlimited and Napster reached similar deals with the big record labels. But Apple refused to license *FairPlay* to them. So those companies turned to Microsoft for copy protection. That means none of the songs sold by those services can be played on the wildly popular iPod. Instead, users of the services had to rely on inferior devices made by companies like Samsung and SanDisk that supported Microsoft's Windows Media format."

Apple's copy-protection software described above creates a barrier to competition that allows iPod to earn above-average profits. This represents a valuable resource to Apple, but it is not reported as an asset on Apple's balance sheet. Consider another example. Apple's software engineers write code and create software that will generate profits for Apple in the future. While this represents a valuable resource to Apple, it is not reported on the balance sheet because Apple expenses the software engineers' salaries when the code is written. We discuss these and other issues relating to asset recognition and measurement in this module.

Sources: Apple 2008 10-K; Apple 2008 Annual Report; *BusinessWeek*, 2006; *Fortune*, 2006 and 2009.

## MODULE ORGANIZATION



This module explains further the details of financial statements and how those statements articulate (relate to each other). Transaction analysis and accounting adjustments conclude the module.

## BALANCE SHEET

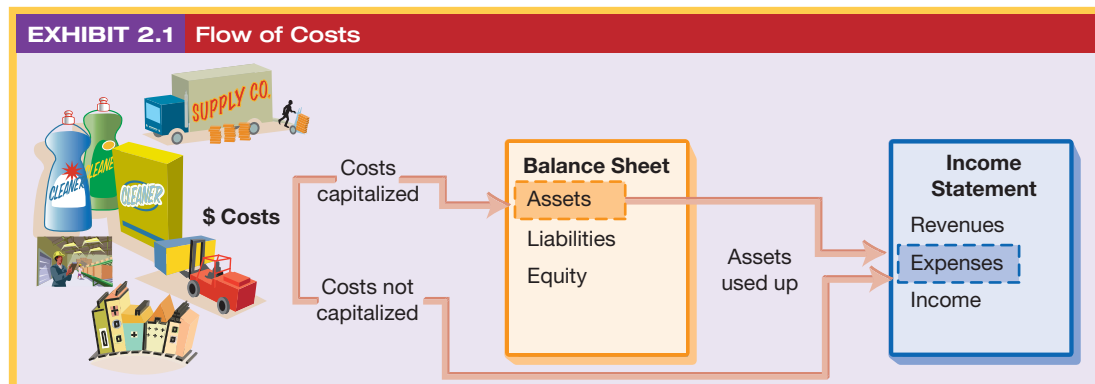
**LO1** Describe information conveyed by the financial statements.

The balance sheet is divided into three sections: assets, liabilities, and stockholders' equity. It provides information about the resources available to management and the claims against those resources by creditors and shareholders. The balance sheet reports the assets, liabilities and equity at a *point* in time. Balance sheet accounts are called “permanent accounts” in that they carry over from period to period; that is, the ending balance from one period becomes the beginning balance for the next.

### Balance Sheet and the Flow of Costs

Companies incur costs to acquire resources that will be used in operations. Every cost creates either an immediate or a future economic benefit. Determining when the company will realize the benefit from a cost is paramount. When a cost creates an immediate benefit, such as gasoline used in delivery vehicles, the company records the cost in the income statement as an expense. When a cost creates a future economic benefit, such as inventory to be resold or equipment to be later used for manufacturing, the company records the cost on the balance sheet as an asset. The definition of an asset is “a future economic benefit.” An asset remains on the company’s balance sheet until it is used up. When an asset is used up, the company realizes the economic benefit from the asset; that is, there is no future economic benefit left so there is no asset left. Then, the asset’s cost is transferred from the balance sheet to the income statement where it is labeled an expense. This is why purchased assets are sometimes referred to as future expenses.

Companies expense certain costs, such as advertising, as they are incurred because even though the costs will likely bring future economic benefits, the related asset cannot be reliably measured. Exhibit 2.1 illustrates how costs flow from the balance sheet to the income statement.



All costs are either held on the balance sheet or are transferred to the income statement. When costs are recorded on the balance sheet (referred to as *capitalized*), assets are reported and expenses are deferred to a later period. Once the company receives benefits from the assets, the related costs are transferred from the balance sheet to the income statement. At that point, assets are reduced and expenses are recorded in the current period. Tracking the flow of costs from the balance sheet to the income statement is an important part of accounting. GAAP allows companies some flexibility in transferring costs. As such, there is potential for abuse, especially when managers confront pressures to achieve income targets.

Corporate scandals involving **WorldCom** and **Enron** regrettably illustrate improper cost transfers designed to achieve higher profit levels. Neither company transferred costs from the balance sheet to the income statement as quickly as they should have. This had the effect of overstating assets on the balance sheet and net income on the income statement. In subsequent litigation, the SEC and the Justice Department contended that these companies intentionally overstated net income to boost stock prices. A number of senior executives from both Enron and WorldCom were sentenced to lengthy jail terms as a result of their criminal actions.

What does GAAP advise about the transfer of costs? Asset costs should transfer to the income statement when the asset no longer has any future economic benefit (which is when it no longer meets the definition of an asset). For example, when inventories are purchased or manufactured, their cost is recorded on the balance sheet as an asset called *inventories*. When inventories are sold, they no longer have an economic benefit to the company and their cost is transferred to the income statement in an expense called *cost of goods sold*. Cost of goods sold represents the cost of inventories sold during that period. This expense is recognized in the same period as the revenue generated from the sale. As another example, consider equipment costs. When a company acquires equipment, the cost of the equipment is recorded on the balance sheet in an asset called *equipment* (often included in the general category of property, plant, and equipment, or PPE). When equipment is used in operations, a portion of the acquisition cost is transferred to the income statement to match against the sales the equipment helped generate. To illustrate, if an asset costs \$100,000, and 10% of it is used up this period in operating activities, then \$10,000 of the asset's cost is transferred from the balance sheet to the income statement. This process is called *depreciation* and the expense related to this transfer of costs is called depreciation expense.

## Assets

Companies acquire assets to yield a return for their shareholders. Assets are expected to produce economic benefits in the form of revenues, either directly such as with inventory or indirectly such as with a manufacturing plant that produces inventories for sale. To create shareholder value, assets must yield income that is in excess of the cost of the funds used to acquire the assets.

The asset section of the **Apple** balance sheet is shown in Exhibit 2.2. Apple reports \$25,347 million of total assets as of September 29, 2007, its year-end (this report was made public on November 15, 2007). Amounts reported on the balance sheet are at a *point in time*—that is, the close of business on the day of the report. An asset must possess two characteristics to be reported on the balance sheet:

1. It must be owned (or controlled) by the company.
2. It must possess expected future economic benefits.

The first requirement, owning or controlling an asset, implies that a company has legal title to the asset, such as the title to property, or has the unrestricted right to use the asset, such as a lease on the property. The second requirement implies that a company expects to realize a benefit from the asset. Benefits can be cash inflows from the sale of an asset or from sales of products produced by the asset. Benefits also can refer to the receipt of other assets such as an account receivable from a credit sale. Or, benefits can arise from future services the company will receive, such as prepaying for a year-long insurance policy.

## Current Assets

The balance sheet lists assets in order of decreasing **liquidity**, which refers to the ease of converting noncash assets into cash. The most liquid assets are called **current assets** and they are listed first. A

**EXHIBIT 2.2 Asset Section of Apple's Balance Sheet (\$ millions)**

APPLE, INC. Balance Sheet September 29, 2007		
<b>Assets</b>		
Current assets		
	Cash and cash equivalents .....	\$ 9,352
	Short-term investments .....	6,034
	Accounts receivable, net .....	1,637
	Inventories .....	346
	Other current assets .....	4,587
	<b>Total current assets .....</b>	<b>21,956</b>
Long-term assets		
	Property, plant and equipment, net .....	1,832
	Other long-term assets .....	1,559
	<b>Total assets .....</b>	<b>\$25,347</b>

Assets used up or converted to cash within one year

→ Current Assets

Assets used up or converted to cash over more than one year

→ Long-Term Assets

company expects to convert its current assets into cash or use those assets in operations within the coming fiscal year.<sup>1</sup> Typical examples of current assets follow:

**Cash**—currency, bank deposits, and investments with an original maturity of 90 days or less (called *cash equivalents*);

**Short-term investments**—marketable securities and other investments that the company expects to dispose of in the short run;

**Accounts receivable, net**—amounts due to the company from customers arising from the sale of products and services on credit (“net” refers to the subtraction of uncollectible accounts);

**Inventories**—goods purchased or produced for sale to customers;

**Prepaid expenses**—costs paid in advance for rent, insurance, advertising and other services.

Apple reports current assets of \$21,956 million in 2007, which is 87% of its total assets. The amount of current assets is an important measure of liquidity, which relates to a company’s ability to make short-term payments. Companies require a degree of liquidity to operate effectively, as they must be able to respond to changing market conditions and take advantage of opportunities. However, current assets are expensive to hold (they must be stored, insured, monitored, financed, and so forth)—and they typically generate relatively low returns. As a result, companies seek to maintain only just enough current assets to cover liquidity needs, but not so much to unnecessarily reduce income.

### Long-Term Assets

The second section of the balance sheet reports long-term (noncurrent) assets. Long-term assets include the following:

**Property, plant and equipment (PPE), net**—land, factory buildings, warehouses, office buildings, machinery, motor vehicles, office equipment and other items used in operating activities (“net” refers to subtraction of accumulated depreciation, the portion of the assets’ cost that has been expensed);

**Long-term investments**—investments that the company does not intend to sell in the near future;

**Intangible and other assets**—assets without physical substance, including patents, trademarks, franchise rights, goodwill and other costs the company incurred that provide future benefits.

<sup>1</sup> Technically, current assets include those assets expected to be converted into cash within the upcoming fiscal year or the company’s operating cycle (the cash-to-cash cycle), whichever is longer. **Fortune Brands** (manufacturer of Jim Beam Whiskey) provides an example of a current asset with a cash conversion cycle of longer than one year. Its inventory footnote reports: “In accordance with generally recognized trade practices, bulk whiskey inventories are classified as current assets, although the majority of such inventories, due to the duration of aging processes, ordinarily will not be sold within one year.”

Long-term assets are not expected to be converted into cash for some time and are, therefore, listed after current assets.

## Measuring Assets

Most assets are reported at their original acquisition costs, or **historical costs**, and not at their current market values. The concept of historical costs is not without controversy. The controversy arises because of the trade-off between the **relevance** of current market values for many business decisions and the **reliability** of historical cost measures.

To illustrate, imagine we are financial analysts and want to determine the value of a company. The company's value equals the value of its assets less the value of its liabilities. Current market values of company assets (and liabilities) are more informative and relevant to our analysis than are historical costs. But how can we determine market values? For some assets, like marketable securities, values are readily obtained from online quotes or from *The Wall Street Journal*. For other assets like property, plant, and equipment, their market values are far more subjective and difficult to estimate. It would be easier for us, as analysts, if companies reported credible market values on their balance sheet. However, allowing companies to report estimates of asset market values would introduce potential *bias* into financial reporting. Consequently, companies continue to report historical costs because the loss in reliability from using subjective market values on the balance sheet is considered to be greater than the loss in relevance from using historical costs.

It is important to realize that balance sheets only include items that can be reliably measured. If a company cannot assign a monetary amount to an asset with relative certainty, it does not recognize an asset on the balance sheet. This means that there are, typically, considerable “assets” that are not reflected on a balance sheet. For example, the well-known apple image is absent from Apple's balance sheet. This image is called an “unrecognized intangible asset.” Both requirements for an asset are met: Apple owns the brand and it expects to realize future benefits from the logo. The problem is reliably measuring the expected future benefits to be derived from the image. Intangible assets such as the Coke bottle silhouette, the iPod brandname, and the Nike swoosh also are not on their respective balance sheets. Companies only report intangible assets on the balance sheet when the assets are purchased. Any internally created intangible assets are not reported on a balance sheet. A sizable amount of resources is, therefore, potentially omitted from companies' balance sheets.

Excluded intangible assets often relate to *knowledge-based* (intellectual) assets, such as a strong management team, a well-designed supply chain, or superior technology. Although these intangible assets confer a competitive advantage to the company, and yield above-normal income (and clear economic benefits to those companies), they cannot be reliably measured. This is one reason why companies in knowledge-based industries are so difficult to analyze and value.

Presumably, however, companies' market values reflect these excluded intangible assets. This can yield a large difference between the market value and the book (reported) value of a company's equity. This is illustrated in the following ratios of market value to book value (averages from 2007): **Apple** is 8.7; **Cisco** is 5.9; **IBM** is 6.7; and **Target** is 3.3. These market-to-book values (ratios) are greater for companies with large knowledge-based assets that are not reported on the balance sheet, but are reflected in company market value. Companies such as **Target** have fewer of these assets. Hence, their balance sheets usually reflect a greater portion of company value.

## Liabilities and Equity

Liabilities and stockholders' equity represent the sources of capital the company uses to finance the acquisition of assets. In general, liabilities represent a company's future economic sacrifices. Liabilities are borrowed funds such as accounts payable and obligations to lenders. They can be interest-bearing or non-interest-bearing.

Equity represents capital that has been invested by the shareholders, either directly via the purchase of stock or indirectly in the form of *retained earnings* that reflect earnings that are reinvested in the business and not paid out as dividends.

The liabilities and stockholders' equity sections of the **Apple** balance sheet are reproduced in Exhibit 2.3. Apple reports \$10,815 million of total liabilities and \$14,532 million of stockholders' equity as of its 2007 year-end.

**EXHIBIT 2.3 Liabilities and Equity Sections of Apple's Balance Sheet (\$ millions)**

**APPLE, INC.**  
**Balance Sheet**  
**September 29, 2007**

Liabilities and Stockholders' Equity			
<b>Liabilities</b>	Current liabilities		
	Accounts payable . . . . .	\$ 4,970	
	Accrued liabilities . . . . .	4,329	
	Total current liabilities . . . . .	9,299	Liabilities requiring payment within one year
	Long-term liabilities . . . . .	1,516	
Total liabilities . . . . .	10,815		Liabilities not requiring payment within one year
<b>Stockholders' Equity</b>	Stockholders' equity		
	Common stock, no par value; 1.8 bil. shares authorized; 872,328,972 shares issued and outstanding . . . . .	5,368	
	Retained earnings . . . . .	9,101	
	Other stockholders' equity . . . . .	63	
	Total stockholders' equity . . . . .	14,532	
Total liabilities and stockholders' equity . . . . .		<u>\$25,347</u>	

Why would Apple obtain capital from both borrowed funds and shareholders? Why not just one or the other? The answer lies in their relative costs and the contractual agreements that Apple has with each.

Creditors have the first claim on the assets of the company. As a result, their position is not as risky and, accordingly, their expected return on investment is less than that required by shareholders. Also, interest is tax deductible whereas dividends are not. This makes debt a less expensive source of capital than equity. So, then, why should a company not finance itself entirely with borrowed funds? The reason is that borrowed funds entail contractual obligations to repay the principal and interest on the debt. If a company cannot make these payments when they come due, creditors can force the company into bankruptcy and potentially put the company out of business. Shareholders, in contrast, cannot require repurchase of their stock, or even the payment of dividends. Thus, companies take on a level of debt that they can comfortably repay at reasonable interest costs. The remaining balance required to fund business activities is financed with more costly equity capital.

### Current Liabilities

The balance sheet lists liabilities in order of maturity. Obligations that must be settled within one year are called **current liabilities**. Examples of common current liabilities follow:

**Accounts payable**—amounts owed to suppliers for goods and services purchased on credit.

**Accrued liabilities**—obligations for expenses that have been incurred but not yet paid; examples are accrued wages payable (wages earned by employees but not yet paid), accrued interest payable (interest that is owing but has not been paid), and accrued income taxes (taxes due).

**Unearned revenues**—obligations created when the company accepts payment in advance for goods or services it will deliver in the future; also called advances from customers, customer deposits, or deferred revenues.

**Short-term notes payable**—short-term debt payable to banks or other creditors.

**Current maturities of long-term debt**—principal portion of long-term debt that is due to be paid within one year.

Apple reports current liabilities of \$9,299 million on its 2007 balance sheet.

Accounts payable arise when one company purchases goods or services from another company. Typically, sellers offer credit terms when selling to other companies, rather than expecting cash on

delivery. The seller records an account receivable and the buyer records an account payable. Apple reports accounts payable of \$4,970 million as of the balance sheet date. Accounts payable are relatively uncomplicated liabilities. A transaction occurs (inventory purchase), a bill is sent, and the amount owed is reported on the balance sheet as a liability.

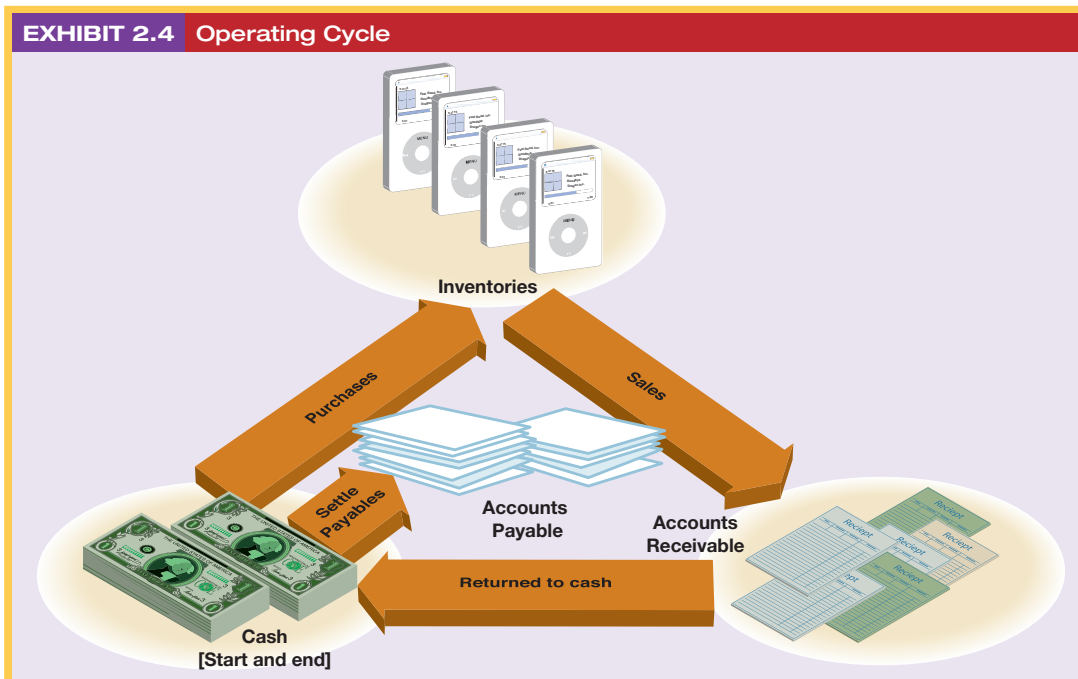
Apple's accrued liabilities total \$4,329 million. Accrued liabilities refer to incomplete transactions. For example, employees work and earn wages, but usually are not paid until later such as several days after the period-end. Wages must be reported as expense in the period that employees earn them because those wages payable are obligations of the company and a liability (wages payable) must be set up on the balance sheet. This is an *accrual*. Other common accruals include the recording of liabilities such as rent and utilities payable, taxes payable, and interest payable on borrowings. All of these accruals involve recognition of expense in the income statement and a liability on the balance sheet.

**Net working capital**, or simply working capital, reflects the difference between current assets and current liabilities and is defined as follows:

$$\text{Net working capital} = \text{Current assets} - \text{Current liabilities}$$

We usually prefer to see more current assets than current liabilities to ensure that companies are liquid. That is, companies should have sufficient funds to pay their short-term debts as they mature. The net working capital required to conduct business depends on the company's **operating (or cash) cycle**, which is the time between paying cash for goods or employee services and receiving cash from customers—see Exhibit 2.4.

Companies, for example, use cash to purchase or manufacture inventories held for resale. Inventories are usually purchased on credit from suppliers (accounts payable). This financing is called **trade credit**. Inventories are sold, either for cash or on credit (accounts receivable). When receivables are ultimately collected, a portion of the cash received is used to repay accounts payable and the remainder goes to the cash account for the next operating cycle.



When cash is invested in inventory, the inventory can remain with the company for 30 to 90 days or more. Once inventory is sold, the resulting accounts receivable can remain with the company for another 30 to 90 days. Assets such as inventories and accounts receivable are costly to hold and, as such, companies strive to reduce operating cycles with various initiatives that aim to:

- Decrease accounts receivable by better collection procedures
- Reduce inventory levels by improved production systems and management
- Increase trade credit to minimize the cash invested in inventories

Analysts often use the “cash conversion cycle” to evaluate company liquidity. The cash conversion cycle is the number of days the company has its cash tied up in receivables and inventories, less the number of days of trade credit provided by company suppliers.

### Noncurrent Liabilities

**Noncurrent liabilities** are obligations due after one year. Examples of noncurrent liabilities follow:

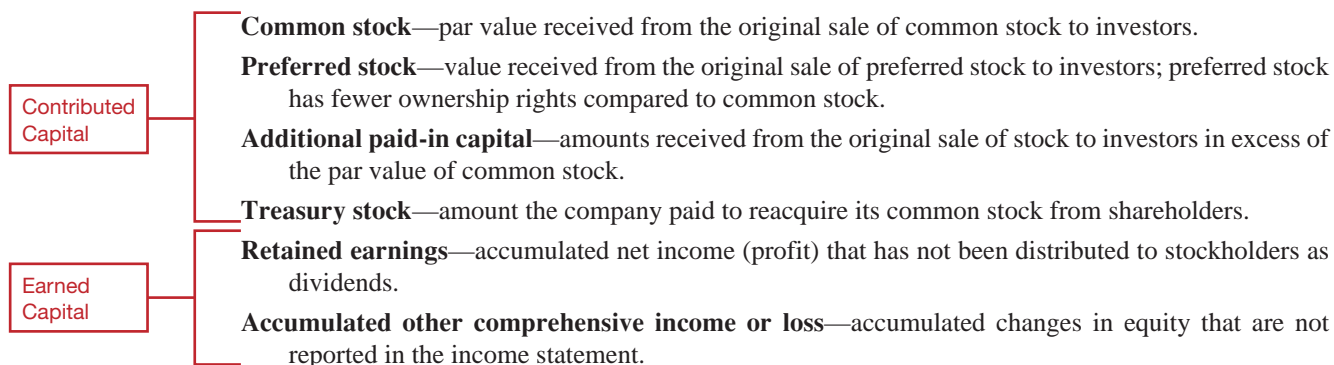
**Long-term debt**—amounts borrowed from creditors that are scheduled to be repaid more than one year in the future; any portion of long-term debt that is due within one year is reclassified as a current liability called *current maturities of long-term debt*. Long-term debt includes bonds, mortgages, and other long-term loans.

**Other long-term liabilities**—various obligations, such as pension liabilities and long-term tax liabilities, that will be settled a year or more into the future.

Apple reports \$1,516 million of noncurrent liabilities. As is typical of high-tech companies, Apple has no long-term debt. Instead, all of its noncurrent liabilities relate to deferred revenue and deferred taxes. Deferred (unearned) revenue arises when a company receives cash in advance of providing a good or service.

### Stockholders' Equity

**Stockholders' equity** reflects financing provided from company owners. Equity is often referred to as *residual interest*. That is, stockholders have a claim on any assets in excess of what is needed to meet company obligations to creditors. The following are examples of items typically included in equity:



The equity section of a balance sheet consists of two basic components: contributed capital and earned capital. **Contributed capital** is the net funding that a company received from issuing and reacquiring its equity shares; that is, the funds received from issuing shares less any funds paid to repurchase such shares. Apple reports \$14,532 million in total stockholders' equity. Its contributed capital is \$5,368 million.

Apple's common stock is “no par” (see Exhibit 2.3). This means that Apple records all of its contributed capital in the common stock account and records no additional paid-in capital. Apple's stockholders (via its board of directors) have authorized it to issue up to 1.8 billion shares of common stock. To date, it has sold (issued) 872,328,972 shares for total proceeds of \$5,368 million, or \$6.15 per share, on average. Apple has repurchased no shares of stock to date.

**Earned capital** is the cumulative net income (loss) that has been retained by the company (not paid out to shareholders as dividends). Apple's earned capital (titled Retained Earnings) totals \$9,101 million as of its 2007 year-end. Its other equity accounts total \$63 million.

### Retained Earnings

There is an important relation for retained earnings that reconciles its beginning balance and its ending balance as follows:

	Beginning retained earnings
+	Net income (or – net loss)
–	Dividends
<hr/>	
=	Ending retained earnings

This is a useful relation to remember. Apple’s retained earnings increases (or decreases) each year by the amount of its reported net income (loss). If Apple paid dividends, it would decrease retained earnings, but Apple currently pays no dividends. (There are other items that can impact retained earnings that we discuss in later modules.) After we explain the income statement, we will revisit this relation and show how retained earnings link the balance sheet and income statement.

**BUSINESS INSIGHT How Much Debt Is Reasonable?**

Apple reports total assets of \$25,347 million, liabilities of \$10,815 million, and stockholders’ equity of \$14,532 million. This reveals that it finances 43% of its assets with borrowed funds and 57% with shareholder investment. This is a lower percentage of nonowner financing than other companies such as The Gap, Target, and Procter & Gamble (P&G), but about the same as Cisco Systems. Companies must monitor their financing sources and amounts. Too much borrowing is risky as borrowed amounts must be repaid with interest. The level of debt that a company can effectively manage depends on the stability and reliability of its operating cash flows. Companies such as P&G, Target, and The Gap can manage relatively high debt levels because their cash flows are relatively stable. Apple and Cisco, on the other hand, operate in industries that change rapidly. They cannot afford to take on too much borrowing risk.

(\$ millions)	Assets	Liabilities	Liabilities to Assets ratio	Equity	Equity to Assets ratio
Apple, Inc. ....	\$ 25,347	\$10,815	42.7%	\$14,532	57.3%
Target Corporation . . . . .	44,560	29,253	65.6%	15,307	34.4%
Gap, Inc. . . . .	7,838	3,564	45.5%	4,274	54.5%
Procter & Gamble Co. . . . .	143,992	74,498	51.7%	69,494	48.3%
Cisco Systems, Inc. . . . .	58,734	24,332	41.4%	34,402	58.6%

**Book Value vs Market Value** Stockholders’ equity is the “value” of the company determined by GAAP and is commonly referred to as the company’s **book value**. This value is different from a company’s **market value** (market capitalization or *market cap*), which is computed by multiplying the number of outstanding common shares by the per share market value. We can compute Apple’s market cap by multiplying its outstanding shares at September 29, 2007, (872,328,972 shares) by its stock price on that date (\$153.47), which equals \$133,876 million. This is considerably larger than its book value of equity on that date of \$14,532 million. Book value and market value can differ for several reasons, mostly related to the recognition of transactions and events in financial statements such as the following:

- GAAP generally reports assets and liabilities at historical costs, whereas the market attempts to estimate fair market values.
- GAAP excludes resources that cannot be reliably measured such as talented management, employee morale, recent innovations and successful marketing, whereas the market attempts to value these.
- GAAP does not consider market differences in which companies operate such as competitive conditions and expected changes, whereas the market attempts to factor in these differences in determining value.
- GAAP does not usually report expected future performance, whereas the market attempts to predict and value future performance.

Presently for U.S. companies, book value is, on average, about two-thirds of market value. This means that the market has drawn on information in addition to that provided in the balance sheet and income

statement in valuing equity shares. A major part of this information is in financial statement notes, but not all. It is important to understand that, eventually, all factors determining company market value are reflected in financial statements and book value. Assets are eventually sold and liabilities are settled. Moreover, talented management, employee morale, technological innovations, and successful marketing are eventually recognized in reported profit. The difference between book value and market value is one of timing.

**BUSINESS INSIGHT** **Apple's Market and Book Values**

Apple's market value has historically exceeded its book value of equity (see graph below). Much of Apple's market value derives from intangible assets such as brand equity that are not fully reflected on its balance sheet, and from favorable expectations of future financial performance (particularly in recent years). Apple has incurred many costs such as R&D, advertising, and promotion that will probably yield future economic benefits. However, Apple expensed these costs (did not capitalize them as assets) because their future benefits were uncertain and therefore could not be reliably measured. Companies capitalize intangible assets only when those assets are purchased, and not when they are internally developed. Consequently, Apple's balance sheet and the balance sheets of many knowledge-based companies are, arguably, less informative about company value.

Year	Market Value (\$ per share)	Book Value (\$ per share)
1998	15	10
1999	35	15
2000	15	10
2001	15	10
2002	15	10
2003	15	10
2004	40	15
2005	85	20
2006	95	25
2007	175	30

## INCOME STATEMENT

The income statement reports revenues earned during a period, the expenses incurred to produce those revenues, and the resulting net income or loss. The general structure of the income statement follows:

Revenues
- Cost of goods sold
-----
Gross profit
- Operating expenses
-----
Operating profit
- Nonoperating expenses (+ Nonoperating revenues)
- Tax expense
-----
Income from continuing operations
+/- Nonrecurring items, net of tax
-----
= Net income

Apple's income statement from its 2007 10-K is shown in Exhibit 2.5. Apple reports net income of \$3,496 million on sales of \$24,006 million. This means that about \$0.15 of each dollar of sales is brought down to the bottom line, computed as \$3,496 million divided by \$24,006 million. Apple's net income margin is higher than that of the average publicly-traded company, which reports about \$0.06 cents in profit for each sales dollar. The remaining \$0.85 of each sales dollar for Apple (computed as \$1 minus \$0.15) is consumed by costs incurred to generate sales. These costs include production costs (cost of sales), wages, advertising, research and development, equipment costs (such as depreciation), and taxes.

**EXHIBIT 2.5 Apple's Income Statement (\$ millions)**

<b>APPLE, INC.</b>	
<b>Income Statement</b>	
<b>For Year Ended September 29, 2007</b>	
Net sales . . . . .	\$24,006
Cost of sales . . . . .	15,852
Gross margin . . . . .	8,154
Operating expenses	
Research and development . . . . .	782
Selling, general, and administrative . . . . .	2,963
Total operating expenses . . . . .	3,745
Operating profit . . . . .	4,409
Other revenue and expense	
Interest and other income, net . . . . .	599
Income before provision for income taxes . . . . .	5,008
Provision for income taxes . . . . .	1,512
Net income . . . . .	<u>\$ 3,496</u>

To analyze an income statement we must understand some terminology. **Revenues** (Sales) are increases in net assets (assets less liabilities) as a result of ordinary operating activities. **Expenses** are decreases in net assets used to generate revenues, including costs of sales, operating costs like wages and advertising (usually titled selling, general, and administrative expenses or SG&A), and nonoperating costs like interest on debt. The difference between revenues and expenses is **net income** when revenues exceed expenses, or **net loss** when expenses exceed revenues. The terms income, profit, and earnings are used interchangeably (as are revenues and sales, and so are expenses and costs).

**Operating expenses** are the usual and customary costs that a company incurs to support its operating activities. Those include cost of goods sold, selling expenses, depreciation expense, and research and development expense. Not all of these expenses require a cash outlay; for example, depreciation expense is a noncash expense, as are many liabilities such as wages payable, that recognize the expense in advance of cash payment. **Nonoperating expenses** relate to the company's financing and investing activities, and include interest expense, interest or dividend income, and gains and losses from the sale of securities. Business decision makers and analysts usually segregate operating and nonoperating activities as they offer different insights into company performance and condition.

**Alert** The FASB has released a preliminary draft of a proposal to restructure financial statements to, among other things, better distinguish operating and nonoperating activities.

**MANAGERIAL DECISION You Are the Securities Analyst**

You are analyzing the performance of a company that hired a new CEO during the current year. The current year's income statement includes an expense labeled "asset write-offs." Write-offs represent the accelerated transfer of costs from the balance sheet to the income statement. Are you concerned about the legitimacy of these expenses? Why or why not? [Answer, p. 2-34]

## Recognition of Revenues and Expenses

An important consideration in preparing the income statement is *when* to recognize revenues and expenses. For many revenues and expenses, the decision is easy. When a customer purchases groceries, pays with a check, and walks out of the store with the groceries, we know that the sale is made and revenue should be recognized. Or, when companies receive and pay an electric bill with a check, they have clearly incurred an expense that should be recognized.

However, should Apple recognize revenue when it sells iPods to a retailer that does not have to pay Apple for 60 days? Should Apple recognize an expense for employees who work this week but will not be paid until the first of next month? The answer to both of these questions is yes.

Two fundamental principles guide recognition of revenues and expenses:

**Revenue Recognition Principle**—recognize revenues when *earned*

**Matching Principle**—recognize expenses when *incurred*.

These two principles are the foundation of **accrual accounting**, which is the accounting system used to prepare all GAAP-based financial statements. The general approach is this: first, recognize revenues in the time period they are earned; then, record all expenses *incurred* to generate those revenues during that same time period (this is called matching expenses to revenues). Net income is then correctly reported for that period.

Recognizing revenues when earned does not necessarily imply the receipt of cash. Revenue is *earned* when the company has done everything that it is supposed to do. This means that a sale of goods on credit would qualify for recognition as long as the revenues are earned. Likewise, companies recognize an expense when it is *incurred*, even if no cash is paid. For example, companies recognize as expenses the wages earned by employees, even though they will not be paid until the next pay period. The company records an expense but pays no cash; instead, it records an accrued liability for the wages payable.

Accrual accounting requires estimates and assumptions. Examples include estimating how much revenue has been earned on a long-term contract, the amount of accounts receivable that will not be collected, the degree to which equipment has been “used up,” the cleanup costs that a company must eventually pay for environmental liabilities, and numerous other estimates. All of these estimates and assumptions affect both reported net income and the balance sheet. Judgments affect all financial statements. This is an important by-product of accrual accounting. We discuss these estimates and assumptions, and their effects on financial statements, throughout the book.

**MANAGERIAL DECISION You Are the Operations Manager**

You are the operations manager on a new consumer product that was launched this period with very successful sales. The Chief Financial Officer (CFO) asks you to prepare an estimate of warranty costs to charge against those sales. Why does the CFO desire a warranty cost estimate? What hurdles must you address in arriving at such an estimate? [Answer, p. 2-34]

## Reporting of Transitory Items

To this point, we have only considered income from continuing operations and its components. A more complete income statement format is in Exhibit 2.6. The most noticeable difference involves two additional components of net income located at the bottom of the statement. These two components are specifically segregated from the “income from continuing operations” and are defined as follows:

1. **Discontinued operations** Gains or losses (and net income or loss) from business segments that are being sold or have been sold in the current period.
2. **Extraordinary items** Gains or losses from events that are both *unusual* and *infrequent* and are, therefore, excluded from income from continuing operations.

These two components are segregated because they represent **transitory items**, which reflect transactions or events that are unlikely to recur. Many readers of financial statements are interested in *future* company performance. They analyze current year financial statements to gain clues to better *predict* future performance. (Stock prices, for example, are based on a company’s expected profits and cash flows.)

Transitory items, by definition, are unlikely to arise in future periods. Although transitory items can help us analyze past performance, they are largely irrelevant to predicting future performance. This means that investors and other users tend to focus on income from continuing operations because that

**EXHIBIT 2.6 General Income Statement Format**

Sales
– Cost of goods sold
_____
Gross profit
– Operating expenses
– Nonoperating expenses (+ Nonoperating revenues)
– Tax expense
_____
Income from continuing operations
± Discontinued operations, net of tax
± Extraordinary items, net of tax
_____
Net income

Tax expense applies to income from continuing operations

Transitory items are those not expected to recur



is the level of profitability that is likely to **persist** (continue) into the future. Likewise, the financial press tends to focus on income from continuing operations when it discloses corporate earnings (often described as *earnings before one-time charges*).

#### IFRS INSIGHT Balance Sheet and Income Statement under IFRS

U.S. GAAP and IFRS require a similar set of financial statements with similar formats. Both standards require current and long-term classifications for assets and liabilities, and both recognize revenues when earned and match expenses to those revenues in the same period. Although differences between U.S. GAAP and IFRS do exist at the “detailed level,” there are at least three broader differences worth mention:

- GAAP makes no formal prescription for the balance sheet and the income statement, however, the SEC does prescribe the types of accounts and number of years that should be disclosed per Reg. S-X. This listing of required accounts is more detailed: Reg. S-X requires three years of comparative income statements whereas IFRS requires only two.
- GAAP requires the reporting of extraordinary items as a separate category of the income statement if they are unusual and infrequent; IFRS has no extraordinary item category.
- For items that are either unusual or infrequent, but not both, GAAP requires separate presentation in the income statement as a component of earnings from continuing operations; IFRS also requires disclosure of these items, but allows for such disclosure in footnotes to financial statements as an alternative to the income statement.

## STATEMENT OF STOCKHOLDERS' EQUITY

The statement of stockholders' equity reconciles the beginning and ending balances of stockholders' equity accounts. The statement of stockholders' equity for **Apple** is shown in Exhibit 2.7.

#### EXHIBIT 2.7 Apple's Statement of Stockholders' Equity

APPLE, INC. Statement of Stockholders' Equity For Year Ended September 29, 2007				
(\$ millions)	Common Stock	Retained Earnings	Other Stockholders' Equity	Total Stockholders' Equity
<b>Balance at September 30, 2006.</b> . . . . .	\$4,355	\$5,607	\$22	\$ 9,984
Common stock issued . . . . .	1,013			1,013
Net income . . . . .		3,496		3,496
Dividends . . . . .		(0)		(0)
Other . . . . .		(2)	41	39
<b>Balance at September 29, 2007.</b> . . . . .	<u>\$5,368</u>	<u>\$9,101</u>	<u>\$63</u>	<u>\$14,532</u>

Apple's first equity component is common stock. The balance in common stock at the beginning of the year is \$4,355 million. During 2007, Apple issued \$1,013 million worth of common stock to employees who exercised stock options. At the end of 2007, the common stock account reports a balance of \$5,368 million.

Apple's second stockholders' equity component is retained earnings. It totals \$5,607 million at the start of fiscal 2007. During the year, it increased by \$3,496 million from net income. Apple's retained earnings do not decrease for dividends because Apple pays no dividends; it also reports \$(2) million of miscellaneous adjustments. The balance of retained earnings at year-end is \$9,101 million.

In sum, total stockholders' equity begins the year at \$9,984 million (including \$22 million relating to miscellaneous accounts that increase total stockholders' equity) and ends fiscal 2007 with a balance of \$14,532 million (including \$63 million relating to miscellaneous accounts that increase total stockholders' equity) for a net increase of \$4,548 million.

**RESEARCH INSIGHT** Market-to-Book Ratio

The market-to-book ratio, also called price-to-book, refers to a company’s market value divided by its book (equity) value—it is also computed as stock price per share divided by book value per share. Research shows that the market-to-book ratio exhibits considerable variability over time. Specifically, over the past few decades, the median (50th percentile) market-to-book ratio was less than 1.0 during the mid-1970s, over 2.0 during the mid-1990s, and often between 1.0 and 2.0 during the 1960s and 1980s.

## STATEMENT OF CASH FLOWS

The balance sheet and income statement are prepared using accrual accounting, in which revenues are recognized when earned and expenses when incurred. This means that companies can report income even though no cash is received. Cash shortages—due to unexpected cash outlays or when customers refuse to or cannot pay—can create economic hardships for companies and even cause their demise.

To assess cash flows, we must assess a company’s cash management. Obligations to employees, creditors, and others are usually settled with cash. Illiquid companies (those lacking cash) are at risk of failure. Given the importance of cash management, companies must report a statement of cash flows in addition to the balance sheet, income statement, and statement of equity.

The income statement provides information about the economic viability of the company’s products and services. It tells us whether the company can sell its products and services at prices that cover its costs and provide a reasonable return to lenders and stockholders. On the other hand, the statement of cash flows provides information about the company’s ability to generate cash from those same transactions. It tells us from what sources the company has generated its cash (so we can evaluate whether those sources are persistent or transitory) and what it has done with the cash it generated.

### Statement Format and Data Sources

The statement of cash flows is formatted to report cash inflows and cash outflows by the three primary business activities:

- *Cash flows from operating activities* Cash flows from the company’s transactions and events that relate to its operations.
- *Cash flows from investing activities* Cash flows from acquisitions and divestitures of investments and long-term assets.
- *Cash flows from financing activities* Cash flows from issuances of and payments toward borrowings and equity.

The combined cash flows from these three sections yield the net change in cash for the period. The three sections of the statement of cash flows relate to the income statement and to different parts of the balance sheet. These relations are highlighted in the table below:

Cash flow section	Information from income statement	Information from balance sheet	
Net cash flows from operating activities . . .	<p><b>Revenues</b></p> <p>– <b>Expenses</b></p> <p>= <b>Net income</b></p>	<p><b>Current assets</b></p> <p>Long-term assets</p>	<p><b>Current liabilities</b></p> <p>Long-term liabilities</p> <p>Equity</p>
Net cash flows from investing activities . . . .	<p>Revenues</p> <p>– Expenses</p> <p>= Net income</p>	<p>Current assets</p> <p><b>Long-term assets</b></p>	<p>Current liabilities</p> <p>Long-term liabilities</p> <p>Equity</p>
Net cash flows from financing activities . . . .	<p>Revenues</p> <p>– Expenses</p> <p>= Net income</p>	<p>Current assets</p> <p>Long-term assets</p>	<p>Current liabilities</p> <p><b>Long-term liabilities</b></p> <p><b>Equity</b></p>

Specifically, the three sections draw generally on the following information:

- **Net cash flows from operating activities** relate to the income statement and to the current asset and current liabilities sections of the balance sheet.
- **Net cash flows from investing activities** relate to the long-term assets section of the balance sheet.
- **Net cash flows from financing activities** relate to the long-term liabilities and stockholders' equity sections of the balance sheet.

These relations do not hold exactly, but they provide us a useful way to visualize the construction of the statement of cash flows.

In analyzing the statement of cash flows, we should not necessarily conclude that the company is better off if cash increases and worse off if cash decreases. It is not the change in cash that is most important, but the reasons behind the change. For example, what are the sources of cash inflows? Are these sources transitory? Are these sources mainly from operating activities? To what uses have cash inflows been put? Such questions and answers are key to properly using the statement of cash flows.

Exhibit 2.8 shows **Apple's** statement of cash flows. Apple reported \$5,470 million in net cash inflows from operating activities in 2007. This is substantially greater than its net income of \$3,496 million. The operating activities section of the statement of cash flows reconciles the difference between net income and operating cash flow. The difference is due to the add-back of depreciation, a noncash expense in the income statement, and other noncash expenses, together with year-over-year changes in operating assets and liabilities.

Apple reports a net cash outflow of \$3,249 million for investing activities, mainly for investments in marketable securities. Apple also generated \$739 million from financing activities, mainly cash received when employees exercised their options to purchase common stock.

Overall, Apple's cash flow picture is strong. It is generating cash from operating activities and the sale of stock to employees, and is investing excess cash in marketable securities to ensure future liquidity.

<b>EXHIBIT 2.8 Apple's Statement of Cash Flows (\$ millions)</b>	
<b>APPLE, INC.</b>	
<b>Statement of Cash Flows</b>	
<b>For Year Ended September 29, 2007</b>	
<b>Operating Activities</b>	
Net income . . . . .	\$3,496
Depreciation and amortization . . . . .	317
Other noncash expenses, net . . . . .	332
Increase in accounts receivable . . . . .	(385)
Increase in inventories . . . . .	(76)
Increases in other current assets, net . . . . .	(1,459)
Increases in accounts payable . . . . .	1,494
Increases in other liabilities . . . . .	1,751
Cash generated by operating activities . . . . .	5,470
<b>Investing Activities</b>	
Increase in short-term investments, net . . . . .	(2,312)
Purchases of property, plant and equipment . . . . .	(735)
Increase in other long-term assets, net . . . . .	(202)
Cash used for investing activities . . . . .	(3,249)
<b>Financing Activities</b>	
Proceeds from issuance of common stock, net . . . . .	362
Other financing activities . . . . .	377
Cash generated by financing activities . . . . .	739
Increase in cash and cash equivalents . . . . .	\$2,960
Cash and cash equivalents, beginning of year . . . . .	6,392
Cash and cash equivalents, end of year . . . . .	\$9,352

## Cash Flow Computations

It is sometimes difficult to understand why certain accounts are added to and subtracted from net income to yield net cash flows from operating activities. It often takes more than one pass through this section to grasp how this part of the cash flow statement is constructed.

A key to understanding these computations is to remember that under accrual accounting, revenues are recognized when earned and expenses when incurred. This recognition policy does not necessarily coincide with the receipt or payment of cash. The top line (net income) of the operating section of the statement of cash flows represents net (accrual) income under GAAP. The bottom line (net cash flows from operating activities) is the *cash profit* the company would have reported had it constructed its income statement on a cash basis rather than an accrual basis. Computing net cash flows from operating activities begins with GAAP profit and adjusts it to compute cash profit using the following general approach:

	Add (+) or Subtract (-) from Net Income
Net income . . . . .	\$ #
Add: depreciation expense . . . . .	+
Adjust for changes in current assets	
Subtract increases in current assets . . . .	-
Add decreases in current assets . . . . .	+
Adjust for changes in current liabilities	
Add increases in current liabilities . . . . .	+
Subtract decreases in current liabilities . .	-
Cash from operating activities . . . . .	\$ #

### BUSINESS INSIGHT Insights into Apple's Statement of Cash Flows

The following provides insights into the computation of some amounts in the operating section of Apple's statement of cash flows in Exhibit 2.8 (\$ millions).

Statement amount	Explanation of computation
Depreciation and amortization, \$317	When buildings and equipment are acquired, their cost is recorded on the balance sheet as assets. Subsequently, as the assets are used up to generate revenues, a portion of their cost is transferred from the balance sheet to the income statement as an expense, called <i>depreciation</i> . Depreciation expense does not involve the payment of cash (that occurs when the asset is purchased). If we want to compute <i>cash profit</i> , we must add back depreciation expense to zero it out from income. The \$317 in the second line of the statement of cash flows merely zeros out (undoes) the depreciation expense that was subtracted when Apple computed GAAP net income. Likewise, the third line (other noncash expenditures of \$332) uses the same concept.
Increase in accounts receivable, \$(385)	When a company sells goods <i>on credit</i> , it records revenue because it is earned, even though cash is not yet received. When Apple sold \$385 of goods on credit, its revenues and net income increased by that amount, but no cash was received. Apple's cash profit is, thus, \$385 less than net income. The \$385 is subtracted from net income in computing net cash inflows from operations.
Increase in inventories, \$(76)	When Apple purchases inventories, the purchase cost is reported on its balance sheet as a current asset. When inventories are sold, their cost is removed from the balance sheet and transferred to the income statement as an expense called cost of goods sold. If some inventories acquired are not yet sold, their cost is not yet reported in cost of goods sold and net income. The subtraction of \$76 relates to the increase in inventories; it reflects the fact that cost of goods sold does not include all of the cash that was spent on inventories. That is, \$76 cash was spent that is not yet reflected in cost of goods sold. Thus, the \$76 is deducted from net income to compute <i>cash profit</i> for the period.
Increases in accounts payable, \$1,494	Apple purchases much of its inventories on credit. The \$1,494 increase in accounts payable reflects inventories that have been purchased, but have not yet been paid for in cash. The add-back of this \$1,494 to net income reflects the fact that <i>cash profit</i> is \$1,494 higher because \$1,494 of accounts payable are not yet paid.

Typically, net income is first adjusted for noncash expenses such as depreciation, and is then adjusted for changes during the year in current assets and current liabilities to yield cash flow from operating activities, or *cash profit*. The depreciation adjustment merely zeros out (undoes the effect of) depreciation expense, a noncash expense, which is deducted in computing net income. The following table provides brief explanations of adjustments for receivables, inventories, and payables and accruals, which are frequent sources of adjustments in this section:

	Change in account balance...	Means that...	Which requires this adjustment to net income to yield cash profit...
Receivables	Increase	Sales and net income increase, but cash is not yet received	Deduct increase in receivables from net income
	Decrease	More cash is received than is reported in sales and net income	Add decrease in receivables to net income
Inventories	Increase	Cash is paid for inventories that are not yet reflected in cost of goods sold	Deduct increase in inventories from net income
	Decrease	Cost of goods sold includes inventory costs that were paid for in a prior period	Add decrease in inventories to net income
Payables and accruals	Increase	More goods and services are acquired on credit, delaying cash payment	Add increase in payables and accruals to net income
	Decrease	More cash is paid than is reflected in cost of goods sold or operating expenses	Deduct decrease in payables and accruals from net income

It is also helpful to use the following decision guide, involving changes in assets, liabilities, and equity, to understand increases and decreases in cash flows.

	Cash flow increases from	Cash flow decreases from
Assets . . . . .	Account decreases	Account increases
Liabilities and equity . . . . .	Account increases	Account decreases

The table above applies to all sections of the statement of cash flows. To determine if a change in each asset and liability account creates a cash inflow or outflow, examine the change and apply the decision rules from the table. For example, in the investing section, cash decreases when PPE assets increase. In the financing section, borrowing from a bank increases cash. Module 3 and Appendix B near the end of the book describe the preparation of the statement of cash flows in detail.

Sometimes the cash flow effect of an item reported in the statement of cash flows does not agree with the difference in the balance sheet accounts that we observe. This can be due to several factors. One common factor is when a company uses its own stock to acquire another entity. There is no cash effect from a stock acquisition and, hence, it is not reported in the statement of cash flows. Yet, the company does increase its assets and liabilities when it adds the acquired company’s assets and liabilities to its balance sheet.

Knowledge of how companies record cash inflows and outflows helps us better understand the statement of cash flows. Determining how changes in asset and liability accounts affect cash provides an analytic tool *and* offers greater insight into managing a business. For instance, reducing the levels of receivables and inventories increases cash. Similarly, increasing the levels of accounts payable and accrued liabilities increases cash. Managing cash balances by managing other accounts is called *working capital management*, which is important for all companies.

### MID-MODULE REVIEW 1

Following are account balances (\$ millions) for **Dell, Inc.** Using these data, prepare Dell’s income statement and statement of cash flows for the fiscal year ended February 1, 2008. Prepare its balance sheet dated February 1, 2008.

Cash and cash equivalents, ending year . . . . .	\$ 7,764	Inventories . . . . .	\$ 1,180
Net cash used in financing activities and other . . . . .	(3,968)	Accounts payable . . . . .	11,492
Long-term debt . . . . .	362	Other stockholders' equity . . . . .	(24,959)
Property, plant and equipment, net . . . . .	2,668	Long-term Investments . . . . .	1,560
Other noncurrent assets . . . . .	3,453	Other current assets . . . . .	3,035
Accrued and other liabilities . . . . .	7,034	Retained earnings . . . . .	18,199
Other noncurrent liabilities . . . . .	4,844	Receivables . . . . .	7,693
Short-term investments . . . . .	208	Selling, general and administrative expenses . . . . .	7,538
Income tax expense . . . . .	880	Research and development expenses . . . . .	693
Net cash provided by operating activities . . . . .	3,949	Cost of revenue . . . . .	49,462
Paid-in capital . . . . .	10,589	Net cash provided by investing activities . . . . .	(1,763)
Cash and cash equivalents, beginning year . . . . .	9,546	Investment and other income, net . . . . .	387
Net revenue . . . . .	61,133		

**Solution**

<b>DELL, INC.</b>	
<b>Income Statement</b>	
<b>For Fiscal Year Ended February 1, 2008</b>	
Net revenue . . . . .	\$61,133
Cost of revenue . . . . .	49,462
Gross margin . . . . .	11,671
Operating expenses	
Selling, general, and administrative expenses . . . . .	7,538
Research and development expenses . . . . .	693
Total operating expenses . . . . .	8,231
Operating income . . . . .	3,440
Investment and other income, net . . . . .	387
Income before income taxes . . . . .	3,827
Income tax provision . . . . .	880
Net income . . . . .	<u>\$ 2,947</u>

<b>DELL, INC.</b>	
<b>Statement of Cash Flows</b>	
<b>For Fiscal Year Ended February 1, 2008</b>	
Net cash provided by operating activities . . . . .	\$ 3,949
Net cash provided by investing activities . . . . .	(1,763)
Net cash used in financing activities and other . . . . .	<u>(3,968)</u>
Net increase in cash and cash equivalents . . . . .	\$(1,782)
Cash and cash equivalents, beginning year . . . . .	9,546
Cash and cash equivalents, ending year . . . . .	<u>\$ 7,764</u>

<b>DELL, INC.</b>			
<b>Balance Sheet</b>			
<b>February 1, 2008</b>			
<b>Assets</b>		<b>Liabilities and Equity</b>	
<b>Current assets</b>		<b>Current liabilities</b>	
Cash and cash equivalents . . . . .	\$ 7,764	Accounts payable . . . . .	\$11,492
Short-term investments . . . . .	208	Accrued and other liabilities . . . . .	7,034
Receivables . . . . .	7,693	Total current liabilities . . . . .	18,526
Inventories . . . . .	1,180	Long-term debt . . . . .	362
Other current assets . . . . .	<u>3,035</u>	Other noncurrent liabilities . . . . .	<u>4,844</u>
Total current assets . . . . .	19,880	Total liabilities . . . . .	23,732
Property, plant, and equipment, net . . . . .	2,668	Stockholders' equity	
Long-term Investments . . . . .	1,560	Paid-in capital . . . . .	10,589
Other noncurrent assets . . . . .	3,453	Retained earnings . . . . .	18,199
		Other stockholders' equity . . . . .	<u>(24,959)</u>
		Total stockholders' equity . . . . .	3,829
Total assets . . . . .	<u>\$27,561</u>	Total liabilities and stockholders' equity . . . . .	<u>\$27,561</u>

# ARTICULATION OF FINANCIAL STATEMENTS

The four financial statements are linked with each other and linked across time. This linkage is called **articulation**. This section demonstrates the articulation of financial statements using Apple.

**LO2** Explain and illustrate linkages among the four financial statements.

## Retained Earnings Reconciliation

The balance sheet and income statement are linked via retained earnings. Recall that retained earnings is updated each period as follows:

Beginning retained earnings
± Net income (loss)
– Dividends
= Ending retained earnings

Retained earnings reflect cumulative income that has not yet been distributed to shareholders. Exhibit 2.9 shows **Apple’s** retained earnings reconciliation for 2007.

EXHIBIT 2.9 Apple’s Retained Earnings Reconciliation	
APPLE, INC. Retained Earnings Reconciliation (\$ millions) For Year Ended September 29, 2007	
Retained earnings, September 30, 2006 . . . . .	\$5,607
Add: Net income . . . . .	3,496
Less: Dividends . . . . .	(0)
Other adjustments . . . . .	(2)
Retained earnings, September 29, 2007 . . . . .	\$9,101

This reconciliation of retained earnings links the balance sheet and income statement.

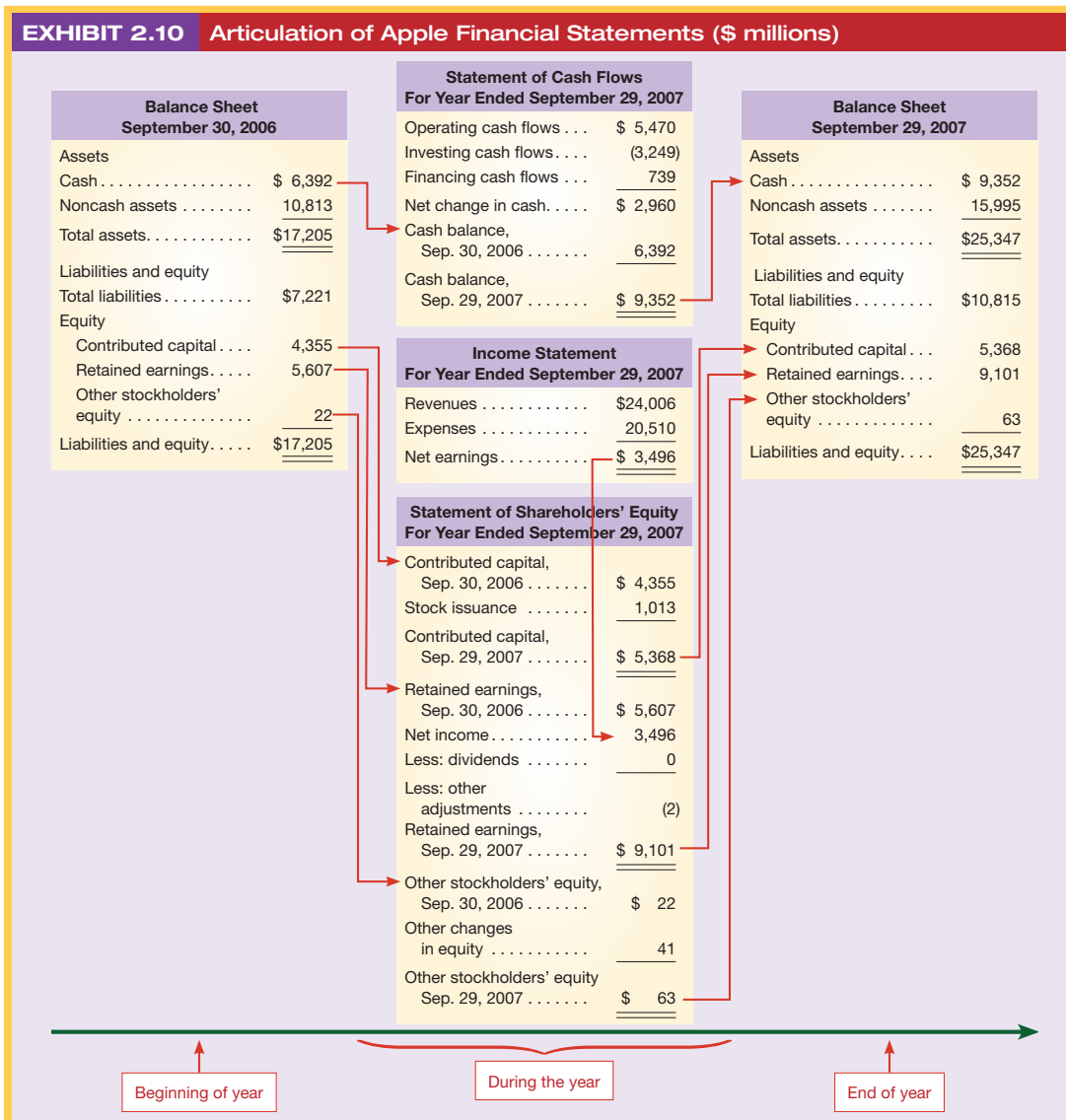
In the absence of transactions with stockholders—such as stock issuances and repurchases, and dividend payments—the change in stockholders’ equity equals income or loss for the period. The income statement, thus, measures the change in company value as measured by *GAAP*. This is not necessarily company value as measured by the *market*. Of course, all value-relevant items eventually find their way into the income statement. So, from a long-term perspective, the income statement does measure change in company value. This is why stock prices react to reported income and to analysts’ expectations about future income.

## Financial Statement Linkages

Articulation of the four financial statements is shown in Exhibit 2.10. Apple begins fiscal 2007 with assets of \$17,205 million, consisting of cash for \$6,392 million and noncash assets for \$10,813 million. These investments are financed with \$7,221 million from nonowners and \$9,984 million from shareholders. The owner financing consists of contributed capital of \$4,355 million, retained earnings of \$5,607 million, and other stockholders’ equity of \$22 million.

Exhibit 2.10 shows balance sheets at the beginning and end of Apple’s fiscal year on the left and right columns, respectively. The middle column reflects operating activities for 2007. The statement of cash flows explains how operating, investing, and financing activities increase the cash balance by \$2,960 million from \$6,392 million at the beginning of the year to \$9,352 million at year-end. The ending balance in cash is reported in the year-end balance sheet on the right.

Apple’s \$3,496 million net income reported on the income statement is also carried over to the statement of shareholders’ equity. The net income explains nearly all of the change in retained earnings reported in the statement of shareholders’ equity because Apple paid no dividends in that year (other adjustments reduce retained earnings by \$2 million).

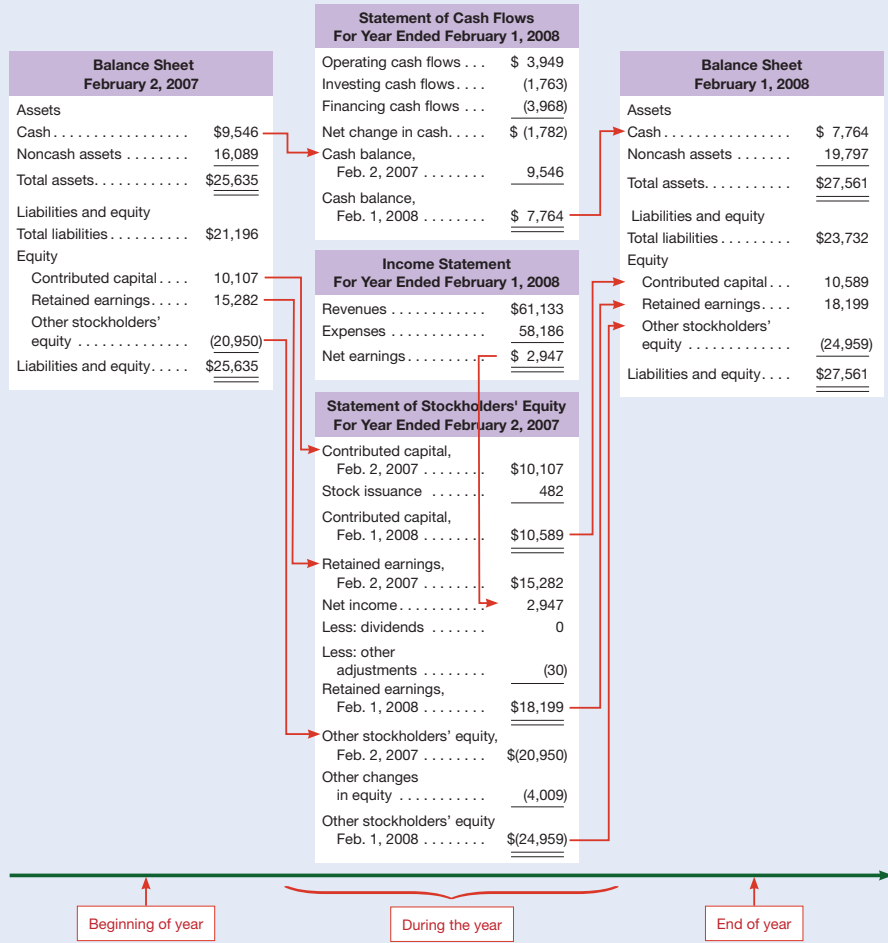


**MID-MODULE REVIEW 2**

Refer to information in Mid-Module Review 1; assume that Dell reports the following balances for the prior year balance sheet and current year income statement. Prepare the articulation of Dell's financial statements from fiscal years 2007 to 2008 following the format of Exhibit 2.10.

Balance Sheet, February 2, 2007		Income Statement, For Year Ended February 1, 2008	
<b>Assets</b>		Revenues . . . . .	\$61,133
Cash . . . . .	\$ 9,546	Expenses . . . . .	58,186
Noncash assets . . . . .	16,089	Net earnings . . . . .	<u>\$ 2,947</u>
Total assets . . . . .	<u>\$25,635</u>		
<b>Liabilities and Equity</b>			
Total liabilities . . . . .	\$21,196		
<b>Equity</b>			
Contributed capital . . . . .	10,107		
Retained earnings . . . . .	15,282		
Other stockholders' equity . . . . .	(20,950)		
Liabilities and equity . . . . .	<u>\$25,635</u>		

**Solution**



**TRANSACTION ANALYSIS AND ACCOUNTING**

This section introduces our financial statement effects template, which we use throughout the book to reflect the effects of transactions on financial statements. A more detailed explanation is in Module 3, but that module is not required to understand and apply the template.

Apple reports total assets of \$25,347 million, total liabilities of \$10,815 million, and equity of \$14,532 million. The accounting equation for Apple follows (\$ million):

<b>Assets</b>	=	<b>Liabilities</b>	+	<b>Equity</b>
<b>\$25,347</b>	=	<b>\$10,815</b>	+	<b>\$14,532</b>

We often draw on this relation to assess the effects of transactions and events, different accounting methods, and choices that managers make in preparing financial statements. For example, we are interested in knowing the effects of an asset acquisition or sale on the balance sheet, income statement, and cash flow statement. Or, we might want to understand how the failure to recognize a liability would understate liabilities and overstate profits and equity. To perform these sorts of analyses, we employ the following **financial statement effects template**:

**L03** Illustrate use of the financial statement effects template to summarize accounting transactions.

Balance Sheet							Income Statement		
Transaction	Cash Asset	+ Noncash Assets	= Liabilities	+ Contrib. Capital	+ Earned Capital	Revenues	- Expenses	= Net Income	
Debit # Credit #			=				-	=	

The template captures the transaction and its financial statement effects on the four financial statements: balance sheet, income statement, statement of stockholders' equity, and statement of cash flows. For the balance sheet, we differentiate between cash and noncash assets so as to identify the cash effects of transactions. Likewise, equity is separated into the contributed and earned capital components. Finally, income statement effects are separated into revenues, expenses, and net income (the updating of retained earnings is denoted with an arrow line running from net income to earned capital). This template provides a convenient means to represent relatively complex financial accounting transactions and events in a simple, concise manner for both analysis and interpretation.

In addition to using the template to show the dollar effects of a transaction on the four financial statements, we also include each transaction's *journal entry* and *T-account* representation in the margin. We explain journal entries and T-accounts in Module 3; these are part of the bookkeeping aspects of accounting. The margin entries can be ignored without any loss of insight gained from the template. (Journal entries and T-accounts use acronyms for account titles; a list of acronyms is in Appendix C near the end of the book.)

The process leading up to preparing financial statements involves two steps: (1) recording transactions during the accounting period, and (2) adjusting accounting records to reflect events that have occurred but are not yet evidenced by an external transaction. We provide a brief introduction to these two steps, followed by a comprehensive example that includes preparation of financial statements (a more detailed illustration of this process is in Module 3).

## Analyzing and Recording Transactions

All transactions affecting a company are recorded in its accounting records. For example, assume that a company paid \$100 cash wages to employees. This is reflected in the following financial statement effects template.

Balance Sheet							Income Statement		
Transaction	Cash Asset	+ Noncash Assets	= Liabilities	+ Contrib. Capital	+ Earned Capital	Revenues	- Expenses	= Net Income	
WE 100 Cash 100 WE 100   Cash 100	-100 Cash		=		-100 Retained Earnings		+100 Wages Expense	= -100	

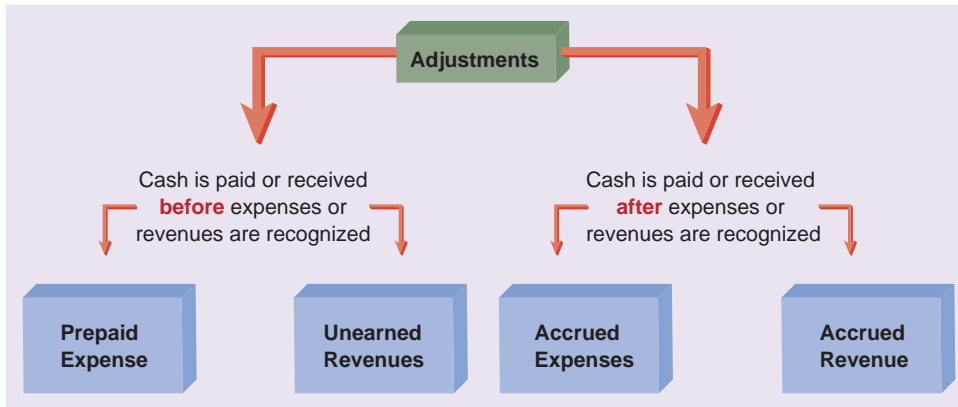
Cash assets are reduced by \$100, and wage expense of \$100 is reflected in the income statement, which reduces income and retained earnings by that amount. All transactions incurred by the company during the accounting period are recorded similarly. We show several further examples in our comprehensive illustration later in this section.

## Adjusting Accounts

We must understand accounting adjustments (commonly called *accruals*) to fully analyze and interpret financial statements. In the transaction above, we record wage expense that has been earned by (and paid to) employees during the period. What if the employees were not paid for wages earned at period-end?

Should the expense still be recorded? The answer is yes. All expenses incurred to generate, directly or indirectly, the revenues reported in the period must be recorded. This is the case even if those expenses are still unpaid at period-end. Failure to recognize wages expense would overstate net income for the period because wages have been earned and should be reported as expense in this period. Also, failure to record those wages at period-end would understate liabilities. Thus, neither the income statement nor the balance sheet would be accurate. Adjustments are, therefore, necessary to accurately portray financial condition and performance of a company.

There are four types of adjustments, which are illustrated in the following graphic. The two adjustments on the left relate to the receipt or payment of cash before revenue or expense is recognized. The two on the right relate to the receipt or payment of cash after revenue or expense is recognized.



One of two types of accounts arise when cash is received or paid *before* recognition of revenue or expense.

**Prepaid expenses** Prepaid expenses reflect advance cash payments that will ultimately become expenses; an example is the payment of radio advertising that will not be aired until sometime in the future.

**Unearned revenues** Unearned revenues reflect cash received from customers before any services or goods are provided; an example is cash received from patrons for tickets to an upcoming concert.

To illustrate the adjustment required with prepaid expenses, assume that Apple pays \$3,000 cash at the beginning of this year to rent office space, and that this allows Apple to use the space for the current year and two additional years. When paid, the prepaid rent is an asset for Apple (it now controls the space, which is expected to provide future benefits for its business). At the end of the first year, one-third of the Prepaid Rent asset is used up. Apple, therefore, removes that portion from its balance sheet and recognizes it as an expense in the income statement. The beginning-year payment and year-end expensing of the rental asset are recorded as follows:

Transaction	Balance Sheet					Income Statement		
	Cash Asset	+ Noncash Assets	= Liabilities	+ Contrib. Capital	+ Earned Capital	Revenues	- Expenses	= Net Income
a. Beginning-year \$3,000 cash payment in advance of 3-year rent	-3,000 Cash	+3,000 Prepaid Rent	=			-		=
b. Recognition of 1-year rent expense of \$1,000		-1,000 Prepaid Rent	=		-1,000 Retained Earnings		+1,000 Rent Expense	= -1,000

PPRNT 3,000	
Cash 3,000	
PPRNT	
3,000	
Cash	3,000
	3,000
RNTE 1,000	
PPRNT 1,000	
RNTE	
1,000	
PPRNT	
	1,000

To illustrate unearned revenues, assume that Apple receives \$5,000 cash in advance of providing services to a client. That amount is initially recorded as a liability for services owed the client. Later, when Apple provides the services, it can recognize that revenue since it is now earned. The receipt of cash and subsequent recognition of revenue are recorded as follows:

		Balance Sheet					Income Statement																		
Transaction		Cash Asset	+ Noncash Assets	= Liabilities	+ Contrib. Capital	+ Earned Capital	Revenues	- Expenses	= Net Income																
<table border="0"> <tr><td>Cash</td><td>5,000</td></tr> <tr><td>UR</td><td>5,000</td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>Cash</td><td>5,000</td></tr> <tr><td>UR</td><td>5,000</td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td></td><td>5,000</td></tr> </table>	Cash	5,000	UR	5,000	<hr/>		Cash	5,000	UR	5,000	<hr/>			5,000	a. Receive \$5,000 cash in advance for future services	+5,000 Cash		= +5,000 Unearned Revenue				-	=		
Cash	5,000																								
UR	5,000																								
<hr/>																									
Cash	5,000																								
UR	5,000																								
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<table border="0"> <tr><td>UR</td><td>5,000</td></tr> <tr><td>REV</td><td>5,000</td></tr> <tr><td>UR</td><td>5,000</td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>5,000</td><td>5,000</td></tr> <tr><td>REV</td><td>5,000</td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td></td><td>5,000</td></tr> </table>	UR	5,000	REV	5,000	UR	5,000	<hr/>		5,000	5,000	REV	5,000	<hr/>			5,000	b. Recognition of \$5,000 services revenue earned			= -5,000 Unearned Revenue	+5,000 Retained Earnings	+5,000 Revenue	-	=	+5,000
UR	5,000																								
REV	5,000																								
UR	5,000																								
<hr/>																									
5,000	5,000																								
REV	5,000																								
<hr/>																									
	5,000																								

One of two types of accounts arise when cash is received or paid *after* recognition of revenue or expense.

**Accrued expenses** Accrued expenses are expenses incurred and recognized on the income statement, even though they are not yet paid in cash; an example is wages owed to employees who performed work but who have not yet been paid.

**Accrued revenues** Accrued revenues are revenues earned and recognized on the income statement, even though cash is not yet received; examples include accounts receivable and revenue earned under a long-term contract.

To illustrate accrued expenses, assume that \$100 of wages earned by Apple employees this period is paid the following period. The period-end adjustment, and subsequent payment the following period, are both reflected in the following template.

		Balance Sheet					Income Statement																
Transaction		Cash Asset	+ Noncash Assets	= Liabilities	+ Contrib. Capital	+ Earned Capital	Revenues	- Expenses	= Net Income														
<table border="0"> <tr><td>WE</td><td>100</td></tr> <tr><td>WP</td><td>100</td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>WE</td><td>100</td></tr> <tr><td>WP</td><td>100</td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td></td><td>100</td></tr> </table>	WE	100	WP	100	<hr/>		WE	100	WP	100	<hr/>			100	Period 1: Accrue \$100 wages expense and liability			= +100 Wages Payable		-100 Retained Earnings		+100 Wages Expense	= -100
WE	100																						
WP	100																						
<hr/>																							
WE	100																						
WP	100																						
<hr/>																							
	100																						
<table border="0"> <tr><td>WP</td><td>100</td></tr> <tr><td>Cash</td><td>100</td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>WP</td><td>100</td></tr> <tr><td>Cash</td><td>100</td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td></td><td>100</td></tr> </table>	WP	100	Cash	100	<hr/>		WP	100	Cash	100	<hr/>			100	Period 2: Pay \$100 cash for wages	-100 Cash		= -100 Wages Payable				-	=
WP	100																						
Cash	100																						
<hr/>																							
WP	100																						
Cash	100																						
<hr/>																							
	100																						

Wages expense is recorded in period 1's income statement because it is incurred by the company and earned by employees in that period. Also, a liability is recorded in period 1 reflecting the company's obligation to make payment to employees. In period 2, the wages are paid, which means that both cash and the liability are reduced.

To illustrate the accrual of revenues, assume that Apple is performing work under a long-term contract that allows it to bill the customer periodically as work is performed. At the end of the current period, it determines that it has earned \$100,000 per contact. The accrual of this revenue and its subsequent collection are recorded as follows (\$ 000s):

Transaction	Balance Sheet					Income Statement		
	Cash Asset	+ Noncash Assets	= Liabilities	+ Contrib. Capital	+ Earned Capital	Revenues	- Expenses	= Net Income
a. Accrual of \$100 of earned revenue		+100 Accounts Receivable	=		+100 Retained Earnings	+100 Revenue	-	= +100
b. Collection of account receivable	+100 Cash	-100 Accounts Receivable	=				-	=

AR	100	
REV		100
AR	100	
REV		100
Cash	100	
AR		100
Cash	100	
AR		100

Companies make these sort of adjustments to more accurately and completely report their financial performance and condition. Each of these adjustments is made by company managers and accountants based on the review of financial statements and information suggesting that adjustments are necessary to properly reflect financial condition and performance.

## Constructing Financial Statements

We can prepare each of the four financial statements directly from our financial statement effects template. The balance sheet and income statement accounts, and their respective balances, can be read off the bottom row that totals the transactions and adjustments recorded during the period. The statement of cash flows and statement of stockholders' equity are represented by the cash column and the contributed and earned capital columns, respectively.

### Illustration: Recording Transactions, Adjusting Accounts, and Preparing Statements

This section provides a comprehensive illustration that uses the financial statement effects template with a number of transactions related to Apple's 2007 financial statements shown earlier. These summary transactions are described in the far left column of the following template. Each column is summed to arrive at the balance sheet and income statement totals which tie to Apple's statements. Detailed explanations for each transaction are provided after the template. Then, we use the information in the template to construct Apple's financial statements.

Transaction	Balance Sheet					Income Statement		
	Cash Asset	+ Noncash Assets	= Liabilities	+ Contrib. Capital	+ Earned Capital	Revenues	- Expenses	= Net Income
Bal., Sept. 30, 2006	6,392	10,813	= 7,221	4,355	5,629	-	=	
Cash 1,013 CS 1,013 Cash 1,013   CS 1,013 PPE 738 LTD 738 PPE 738   LTD 738	+1,013		=	+1,013		-	=	
1. Issue common stock for \$1,013 cash	Cash		=	Common stock		-	=	
PPE 738 LTD 738 PPE 738   LTD 738		+738	= +738			-	=	
2. Purchase \$738 of PPE, financed by \$738 of long-term debt		PPE, net	= Long-Term Debt			-	=	
INV 15,928 AP 15,928 INV 15,928   AP 15,928		+15,928	= +15,928			-	=	
3. Purchase \$15,928 of inventories on credit		Inventories	= Accounts Payable			-	=	
AR 24,006 Sales 24,006 AR 24,006   Sales 24,006		+24,006	=	+24,006		+24,006	=	+24,006
4. Sell inventories for \$24,006 on credit; the cost of inventories is \$15,852		Accounts Receivable	=	Retained Earnings		-	=	
COGS 15,852 INV 15,852 COGS 15,852   INV 15,852		-15,852	=	-15,852		+15,852	=	-15,852
5. Receive \$23,621 cash for accounts receivable;	+23,621		=			-	=	
Cash 23,621 AR 23,621 Cash 23,621   AR 23,621	Cash	-23,621	=	Accounts Receivable		-	=	
Pay \$14,348 cash for accounts payable	-14,348		=	-14,348		-	=	
AP 14,348 Cash 14,348 AP 14,348   Cash 14,348	Cash		=	Accounts Payable		-	=	
6. Pay \$3,664 cash for R&D, SGA (excluding depreciation), interest, and taxes	-3,664		=	-3,664		-	=	+3,664
OE 3,664 Cash 3,664 OE 3,664   Cash 3,664	Cash		=	Retained Earnings		+3,664	=	-3,664
7. Accrue expenses of \$1,276			=	+1,276		-	=	+1,276
OE 1,276 ACC 1,276 OE 1,276   ACC 1,276			=	Accrued Liabilities		-	=	-1,276
8. Purchase securities for \$4,261 cash	-4,261	+4,261	=			-	=	
Cash 4,261 MS 4,261 Cash 4,261   MS 4,261	Cash	Marketable Securities	=			-	=	
9. Record depreciation of \$317		-317	=	-317		-	=	+317
PPE 317 DE 317 PPE 317   DE 317		PPE, net	=	Retained Earnings		+317	=	-317
10. Record net investment income of \$599	+599		=	+599		+599	=	+599
Cash 599 OI 599 Cash 599   OI 599	Cash		=	Retained Earnings		-	=	
11. Miscellaneous		+39	=	+39		-	=	
OA 39 AOCl 39 OA 39   AOCl 39		Other Assets	=	Accumulated Other Comp. Income		-	=	
Bal., Sept. 29, 2007	9,352	+ 15,995	= 10,815	+ 5,368	+ 9,164	24,605	- 21,109	= 3,496

**Transaction Explanation** Apple begins fiscal year 2007 with \$17,205 million in total assets, consisting of \$6,392 million of cash and \$10,813 million of noncash assets. It also reports \$7,221 million of liabilities and \$9,984 million of stockholders' equity (\$4,355 million of contributed capital and \$5,629 million of earned capital, which includes other equity for this exhibit). During the year, eleven summary transactions occur that are described below.

1. **Owner Financing.** Companies raise funds from two sources: investing from shareholders and borrowing from creditors. Transaction 1 reflects issuance of common stock for \$1,013 million. Cash is increased by that amount, as is contributed capital. Stock issuance (as well as its repurchase and any dividends paid to shareholders) does not impact income. Companies cannot record profit by trading in their own stock.
2. **Purchase PPE financed by debt.** Apple acquires \$738 million of property, plant and equipment (PPE), and it finances this acquisition with a \$738 million loan. Noncash assets increase by the \$738 million of PPE, and liabilities increase by \$738 million of long-term debt. PPE is initially reported on the balance sheet at the cost Apple paid to acquire it. When plant and equipment are used, a portion of the purchase cost is transferred from the balance sheet to the income statement as an expense called depreciation. Accounting for depreciation is shown in Transaction 9. The borrowing of money does not yield income, and repaying the principal amount borrowed is not an expense. Paying interest *on* liabilities, however, is an expense.
3. **Purchase inventories on credit.** Companies commonly acquire inventories from suppliers *on credit* (also called *on account*). The phrase “on credit” means that the purchase has not yet been paid for. A purchaser is typically allowed 30 days or more during which to make payment. When acquired in this manner, noncash assets (inventories) increase by the \$15,928 million cost of the acquired inventory, and a liability (accounts payable) increases to reflect the amount owed to the supplier. Although inventories (iPods, for example) normally carry a retail selling price that is higher than cost, this eventual profit is not recognized until inventories are sold.
4. **Sell inventories on credit.** Apple subsequently sells inventories that cost \$15,852 million for a retail selling price of \$24,006 million *on credit*. The phrase “on credit” means that Apple has not yet received cash for the selling price; cash receipt is expected in the future. The sale of inventories is recorded in two parts: the revenue part and the expense part. First, the sale is recorded by an increase in both revenues and noncash assets (accounts receivable). Revenues increase net income which, in turn, increases earned capital (via retained earnings). Second, the cost of inventories sold is removed from the balance sheet (Apple no longer owns those assets), and is transferred to the income statement as an expense, called *cost of goods sold*, which decreases both net income and earned capital by \$15,852 (again, via retained earnings).
5. **Collect receivables and settle payables.** Apple receives \$23,621 million cash from the collection of its accounts receivable, thus reducing noncash assets (accounts receivable) by that amount. Apple uses these proceeds to pay off \$14,348 of its liabilities (accounts payable and other liabilities). Collecting accounts receivable does not yield revenue; instead, revenue is recognized when *earned* (see Transaction 4). Thus, recognizing revenue when earned does not necessarily yield an immediate cash increase.
6. **Pay cash for expenses.** Apple pays \$3,664 million cash for expenses. This payment increases expenses, and reduces net income (and earned capital). Expenses are recognized when incurred, regardless of when they are paid. Expenses are both incurred and paid in this transaction. Transaction 7 is a case where expenses are recognized *before* being paid.
7. **Accrue expenses.** Accrued expenses relate to expenses that are incurred but not yet paid. For example, employees often work near the end of a period but are not paid until the next period. The company must record wages expense even though employees have not yet been paid in cash. The rationale is that expenses must be *matched* against current period revenues to report the correct income for the period. In this transaction, Apple accrues \$1,276 million of expenses, which reduces net income (and earned capital). Apple simultaneously records a \$1,276 million increase in liabilities for its obligation to make future payment. This transaction is an accounting adjustment, or accrual.
8. **Purchase noncash assets.** Apple uses \$4,261 million of its excess cash to purchase marketable securities as an investment. Thus, noncash assets increase. This is a common use of excess cash,

especially for high-tech companies that desire added liquidity to take advantage of opportunities in a rapidly changing industry.

- 9. **Record depreciation.** Transaction 9 is another accounting adjustment. In this case, Apple recognizes that a portion of its plant and equipment is “used up” while generating revenues. Thus, it matches a portion of the PPE cost as an expense against the revenues recognized during the period. In this case, \$317 million of PPE cost is removed from the balance sheet and transferred to the income statement as depreciation expense. Net income (and earned capital) are reduced by \$317 million.
- 10. **Record investment income.** Apple recognizes \$599 of investment income in transaction 10. Profit increases by this same amount, resulting in an increase in Retained Earnings.
- 11. **Miscellaneous.** The final transaction is a miscellaneous adjustment to noncash assets and an earned capital account called accumulated other comprehensive income, which is distinct from retained earnings. We discuss this account in Module 9.

We can use the column totals from the financial statement effects template to prepare Apple’s financial statements (in condensed form). We derive Apple’s 2007 balance sheet and income statement from the template as follows (\$ millions).

APPLE, INC. Condensed Balance Sheet September 29, 2007		APPLE, INC. Condensed Income Statement For the Year Ended September 29, 2007	
Cash asset . . . . .	\$ 9,352	Revenues . . . . .	\$24,605
Noncash assets . . . . .	15,995	Expenses . . . . .	21,109
Total assets. . . . .	<u>\$25,347</u>	Net income. . . . .	<u>\$ 3,496</u>
Liabilities. . . . .	\$10,815		
Contributed capital. . . . .	5,368		
Earned capital . . . . .	9,164		
Total liabilities and equity . . . . .	<u>\$25,347</u>		

We can summarize Apple’s cash transactions from the cash column of the template. The cash column of the financial effects template reveals that cash increases by \$2,960 million during the year from \$6,392 million to \$9,352 million, see the following statement. Items that contribute to this net increase are identified by the cash entries in that column (the subtotals for operating, investing, and financing sections are slightly different from actual results because of simplifying assumptions we make for our transactions example).

APPLE, INC. Statement of Cash Flows (\$ millions) For the Year Ended September 29, 2007	
Operating cash flows (+ \$23,621 – \$14,348 – \$3,664 + \$599). . . . .	\$6,208
Investing cash flows. . . . .	(4,261)
Financing cash flows . . . . .	1,013
Net change in cash. . . . .	<u>\$2,960</u>
Cash balance, Sep. 30, 2006. . . . .	6,392
Cash balance, Sep. 29, 2007. . . . .	<u>\$9,352</u>

Apple’s statement of stockholders’ equity summarizes the transactions relating to its equity accounts. This statement follows and is organized into its contributed capital and earned capital categories of equity.

APPLE, INC. Condensed Statement of Stockholders' Equity September 29, 2007			
(\$ millions)	Contributed Capital	Earned Capital	Total
Balance, September 30, 2006	\$4,355	\$5,629	\$ 9,984
Issuance of common stock	1,013		1,013
Net income		3,496	3,496
Miscellaneous		39	39
<b>Balance, September 29, 2007</b>	<b>\$5,368</b>	<b>\$9,164</b>	<b>\$14,532</b>

Apple's financial statements are abbreviated versions of those reproduced earlier in the module. We describe the preparation of financial statements and other accounting details at greater length in Module 3.

### MODULE-END REVIEW

At December 31, 2008, assume that the condensed balance sheet of Gateway shows the following.

Cash	\$ 80,000	Liabilities	\$200,000
Noncash assets	270,000	Contributed capital	50,000
		Earned capital	100,000
Total assets	\$350,000	Total liabilities and equity	\$350,000

Assume the following summary transactions occur during 2009.

1. Purchase inventory of \$80,000 on credit.
2. Pay employees \$10,000 cash for wages earned this year.
3. Sell inventory costing \$40,000 for \$70,000 on credit.
4. Collect \$15,000 cash from the account receivables in transaction 3.
5. Pay \$35,000 cash toward the account payables in transaction 1.
6. Purchase advertising for \$25,000 cash that will air next year.
7. Employees earn \$5,000 in wages that will not be paid until next year.
8. Record \$3,000 depreciation on its equipment.

### Required

- a. Record transactions 1 through 8 using the financial statement effects template.
- b. Prepare the income statement and balance sheet for 2009.
- c. Show linkage(s) between the income statement and the balance sheet.

### Solution

a.

Transaction	Balance Sheet					Income Statement		
	Cash Asset	+ Noncash Assets	= Liabilities	+ Contrib. Capital	+ Earned Capital	Revenues	- Expenses	= Net Income
Beginning balance	+80,000	+270,000	= +200,000	+50,000	+100,000	-	=	
1. Purchase inventory of \$80,000 on credit		+80,000 Inventory	= +80,000 Account Payable			-	=	

continued

continued from prior page

Transaction	Balance Sheet					Income Statement		
	Cash Asset	+ Noncash Assets	= Liabilities	+ Contrib. Capital	+ Earned Capital	Revenues	- Expenses	= Net Income
2. Pay employees \$10,000 cash for wages earned this year	-10,000 Cash		=		-10,000 Retained Earnings		+10,000 Wages Expense	= -10,000
3. Sell inventory costing \$40,000 for \$70,000 on credit		+70,000 Accounts Receivable	=		+70,000 Retained Earnings	+70,000 Sales		+70,000
		-40,000 Inventory	=		-40,000 Retained Earnings		+40,000 Cost of Goods Sold	= -40,000
4. Collect \$15,000 cash from the account receivables in transaction 3	+15,000 Cash	-15,000 Accounts Receivable	=					=
5. Pay \$35,000 cash toward the account payables in transaction 1	-35,000 Cash		=	-35,000 Account Payable				=
6. Purchase advertising for \$25,000 cash that will air next year	-25,000 Cash	+25,000 Prepaid Advertising	=					=
7. Employees earn \$5,000 in wages that will not be paid until next year			=	+5,000 Wages Payable	-5,000 Retained Earnings		+5,000 Wages Expense	= -5,000
8. Record \$3,000 depreciation on its equipment		-3,000 PPE, net	=		-3,000 Retained Earnings		+3,000 Depreciation Expense	= -3,000
Ending balance	+25,000	+387,000	=	+250,000	+50,000	+112,000	+70,000	- +58,000 = +12,000

b.

GATEWAY Income Statement For Year Ended December 31, 2009	
Revenues . . . . .	\$70,000
Expenses . . . . .	58,000
Net income . . . . .	<u>\$12,000</u>

GATEWAY Balance Sheet December 31, 2009			
Cash . . . . .	\$ 25,000	Liabilities . . . . .	\$250,000
Noncash assets . . . . .	387,000	Contributed capital . . . . .	50,000
		Earned income . . . . .	112,000
Total assets. . . . .	<u>\$412,000</u>	Total liabilities and equity . . . . .	<u>\$412,000</u>

- c. The linkage between the income statement and the balance sheet is Retained Earnings. Each period, the Retained Earnings account is updated for the profit earned less dividends paid. For this period, that updating follows.

GATEWAY Retained Earnings Reconciliation For Year Ended December 31, 2009	
Retained earnings, Dec. 31, 2008 . . . . .	\$100,000
Add: Net income . . . . .	12,000
Less: Dividends . . . . .	<u>(0)</u>
Retained earnings, Dec. 31, 2009 . . . . .	<u>\$112,000</u>

## APPENDIX 2A: Additional Information Sources

The four financial statements are only a part of the information available to financial statement users. Additional information, from a variety of sources, provides useful insight into company operating activities and future prospects. This section highlights additional information sources.

### Form 10-K

Companies with publicly traded securities must file a detailed annual report and discussion of their business activities in their Form 10-K with the SEC (quarterly reports are filed on form 10-Q). Many of the disclosures in the 10-K are mandated by law and include the following general categories: Item 1, *Business*; Item 1A, *Risk Factors*; Item 2, *Properties*; Item 3, *Legal Proceedings*; Item 4, *Submission of Matters to a Vote of Security Holders*; Item 5, *Market for Registrant's Common Equity and Related Stockholder Matters*; Item 6, *Selected Financial Data*; Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations*; Item 7A, *Quantitative and Qualitative Disclosures About Market Risk*; Item 8, *Financial Statements and Supplementary Data*; Item 9, *Changes in and Disagreements With Accountants on Accounting and Financial Disclosure*; Item 9A, *Controls and Procedures*.

### Description of the Business (Item 1)

Companies must provide a general description of their business, including their principal products and services, the source and availability of required raw materials, all patents, trademarks, licenses, and important related agreements, seasonality of the business, any dependence upon a single customer, competitive conditions, including particular markets in which the company competes, the product offerings in those markets, and the status of its competitive environment. Companies must also provide a description of their overall strategy. **Apple's** partial disclosure follows:

The Company is committed to bringing the best personal computing, portable digital music and mobile communication experience to students, educators, creative professionals, businesses, government agencies, and consumers through its innovative hardware, software, peripherals, services, and Internet offerings. The Company's business strategy leverages its unique ability to design and develop its own operating system, hardware, application software, and services to provide its customers new products and solutions with superior ease-of-use, seamless integration, and innovative industrial design. The Company believes continual investment in research and development is critical to the development and enhancement of innovative products and technologies. In addition to evolving its personal computers and related solutions, the Company continues to capitalize on the convergence of the personal computer, digital consumer electronics and mobile communications by creating and refining innovations, such as the iPod, iPhone, iTunes Store, and Apple TV. The Company's strategy also includes expanding its distribution network to effectively reach more of its targeted customers and provide them with a high-quality sales and post-sales support experience.

## Management’s Discussion and Analysis of Financial Condition and Results of Operations (Item 7)

The management discussion and analysis (MD&A) section of the 10-K contains valuable insight into the company’s results of operations. In addition to an executive overview of company status and its recent operating results, the MD&A section includes information relating to its critical accounting policies and estimates used in preparing its financial statements, a detailed discussion of its sales activity, year-over-year comparisons of operating activities, analysis of gross margin, operating expenses, taxes, and off-balance-sheet and contractual obligations, assessment of factors that affect future results and financial condition. Item 7A reports quantitative and qualitative disclosures about market risk. For example, Apple makes the following disclosure relating to its Mac operating system and its iPods.

The Company is currently the only maker of hardware using the Mac OS. The Mac OS has a minority market share in the personal computer market, which is dominated by makers of computers using competing operating systems, most notably Windows. The Company’s financial condition and operating results substantially depend on its ability to continually develop improvements to the Mac platform to maintain perceived design and functional advantages. Use of unauthorized copies of the Mac OS on other companies’ hardware products may result in decreased demand for the Company’s hardware products, and materially adversely affect its financial condition and operating results.

## Form 8-K

Another useful report that is required by the SEC and is publicly available is the Form 8-K. This form must be filed within four business days of any of the following events:

- Entry into or termination of a material definitive agreement (including petition for bankruptcy)
- Exit from a line of business or impairment of assets
- Change in the company’s certified public accounting firm
- Change in control of the company
- Departure of the company’s executive officers
- Changes in the company’s articles of incorporation or bylaws

Outsiders typically use Form 8-K to monitor for material adverse changes in the company.

## Analyst Reports

Sell-side analysts provide their clients with objective analyses of company operating activities. Frequently, these reports include a discussion of the competitive environment for each of the company’s principal product lines, strengths and weaknesses of the company, and an investment recommendation, including financial analysis and a stock price target. For example, **Deutsche Bank** provides the following in its June 2008 report to clients on Apple:

Global Markets Research

Company  
North America United States  
TMT IT Hardware

6 March 2008

# Apple Inc

Reuters: AAPL.OQ    Bloomberg: AAPL.UW    Exchange: NSM    Ticker: AAPL

**Maintain Buy rating and \$225 price target**

Our rev/EPS estimates are unchanged at \$31.5B/\$5.00 for FY08 and \$37.9B/\$6.00 for FY09 and we are modeling CY09 FCF of ~\$9.25 per share. In addition, our \$225 price target is unchanged and assumes Apple trades at ~25x CY09 FCF (or 33x our CY09 estimate (x-cash); the middle of its historical 19-70x FTM PE and is supported by our DCF (WACC 9%, LT growth 4%) analysis. Risks to our thesis include slower consumer spending, price pressure in PCs and sooner-than-expected saturation of the MP3 market.

Forecasts and ratios			
Year End Sep 30	2007A	2008E	2009E
1Q EPS*	1.14	1.76A	1.94
2Q EPS	0.87	1.00	1.28
3Q EPS	0.92	1.05	1.30
4Q EPS	1.01	1.20	1.48
FY EPS (USD)	3.93	5.00	6.00

Source: Deutsche Bank estimate, company data

\* Includes the impact of FAS123R requiring the expensing of stock options.

**Deutsche Bank**

**Buy**

Price at 6 Mar 2008 (USD)	121.45
Price target	225.00
52-week range	199.83 - 87.72

Price/price relative

Performance (%)	1m	3m	12m
Absolute	-0.5	-36.1	37.2
S&P 500 INDEX	0.5	-11.5	-4.4

## Credit Services

Several firms including **Standard & Poor's** ([StandardAndPoors.com](http://StandardAndPoors.com)), **Moody's Investors Service** ([Moody.com](http://Moody.com)), and **Fitch Ratings** ([FitchRatings.com](http://FitchRatings.com)) provide credit analysis that assists potential lenders, investors, employees, and other users in evaluating a company's creditworthiness and future financial viability. Credit analysis is a specialized field of analysis, quite different from the equity analysis illustrated here. These firms issue credit ratings on publicly issued bonds as well as on firms' commercial paper.

## Data Services

A number of companies supply financial statement data in easy-to-download spreadsheet formats. **Thomson Corporation** ([Thomson.com](http://Thomson.com)) provides a wealth of information to its database subscribers, including the widely quoted *First Call* summary of analysts' earnings forecasts. Standard & Poor's provides financial data for all publicly traded companies in its *Compustat* database. This database reports a plethora of individual data items for all publicly traded companies or for any specified subset of companies. These data are useful for performing statistical analysis and making comparisons across companies or within industries. Finally, **Capital IQ** ([www.CapitalIQ.com](http://www.CapitalIQ.com)), a division of Standard & Poors, provides "as presented" financial data that conform to published financial statements as well as additional statistical data and analysis.

## GUIDANCE ANSWERS

### MANAGERIAL DECISION You are the Securities Analyst

Of special concern is the possibility that the new CEO is shifting costs to the current period in lieu of recording them in future periods. Evidence suggests that such behavior occurs when a new management team takes control. The reasoning is that the new management can blame poor current period performance on prior management and, at the same time, rid the balance sheet (and the new management team) of costs that would normally be expensed in future periods.

### MANAGERIAL DECISION You are the Operations Manager

The CFO desires a warranty cost estimate that matches the sales generated from the new product. To arrive at such an estimate, you must estimate the expected number and types of deficiencies in your product and the costs to repair each deficiency per the warranty provisions. This is often a difficult task for product engineers because it forces them to focus on product failures and associated costs.

Superscript <sup>A</sup> denotes assignments based on Appendix 2A.

## DISCUSSION QUESTIONS

- Q2-1. The balance sheet consists of assets, liabilities, and equity. Define each category and provide two examples of accounts reported within each category.
- Q2-2. Two important concepts that guide income statement reporting are the revenue recognition principle and the matching principle. Define and explain each of these two guiding principles.
- Q2-3. GAAP is based on the concept of accrual accounting. Define and describe accrual accounting.
- Q2-4. Analysts attempt to identify transitory items in an income statement. Define transitory items. What is the purpose of identifying transitory items?
- Q2-5. What is the statement of stockholders' equity? What useful information does it contain?
- Q2-6. What is the statement of cash flows? What useful information does it contain?
- Q2-7. Define and explain the concept of financial statement articulation. What insight comes from understanding articulation?
- Q2-8. Describe the flow of costs for the purchase of a machine. At what point do such costs become expenses? Why is it necessary to record the expenses related to the machine in the same period as the revenues it produces?
- Q2-9. What are the two essential characteristics of an asset?
- Q2-10. What does the concept of liquidity refer to? Explain.

- Q2-11. What does the term *current* denote when referring to assets?
- Q2-12. Assets are recorded at historical costs even though current market values might, arguably, be more relevant to financial statement readers. Describe the reasoning behind historical cost usage.
- Q2-13. Identify three intangible assets that are likely to be *excluded* from the balance sheet because they cannot be reliably measured.
- Q2-14. Identify three intangible assets that are recorded on the balance sheet.
- Q2-15. What are accrued liabilities? Provide an example.
- Q2-16. Define net working capital. Explain how increasing the amount of trade credit can reduce the net working capital for a company.
- Q2-17. What is the difference between company *book value* and *market value*? Explain why these two amounts differ.
- Q2-18. The financial statement effects template includes an arrow line running from net income to earned capital. What does this arrow line denote?

Assignments with the **WebAssign** logo in the margin are available in WebAssign. See the Preface of the book for details.

### MINI EXERCISES

**M2-19. Identifying and Classifying Financial Statement Items (LO1)**

For each of the following items, indicate whether they would be reported in the balance sheet (B) or income statement (I).

- a. Net income
- b. Retained earnings
- c. Depreciation expense
- d. Accumulated depreciation
- e. Wages expense
- f. Wages payable
- g. Interest expense
- h. Interest payable
- i. Sales



**M2-20. Identifying and Classifying Financial Statement Items (LO1)**

For each of the following items, indicate whether they would be reported in the balance sheet (B) or income statement (I).

- a. Machinery
- b. Supplies expense
- c. Inventories
- d. Sales
- e. Common stock
- f. Factory buildings
- g. Receivables
- h. Taxes payable
- i. Taxes expense
- j. Cost of goods sold
- k. Long-term debt
- l. Treasury stock

**M2-21. Computing and Comparing Income and Cash Flow Measures (LO1)**

Penno Corporation recorded service revenues of \$100,000 in 2009, of which \$70,000 were on credit and \$30,000 were for cash. Moreover, of the \$70,000 credit sales for 2009, Penno collected \$20,000 cash on those receivables before year-end 2009. The company also paid \$25,000 cash for 2009 wages. Its employees also earned another \$15,000 in wages for 2009, which were not yet paid at year-end 2009. (a) Compute the company's net income for 2009. (b) How much net cash inflow or outflow did the company generate in 2009? Explain why Penno's net income and net cash flow differ.

**M2-22. Assigning Accounts to Sections of the Balance Sheet (LO1)**

Identify each of the following accounts as a component of assets (A), liabilities (L), or equity (E).

- a. Cash and cash equivalents \_\_\_\_\_
- b. Wages payable \_\_\_\_\_
- c. Common stock \_\_\_\_\_
- d. Equipment \_\_\_\_\_
- e. Long-term debt \_\_\_\_\_
- f. Retained earnings \_\_\_\_\_
- g. Additional paid-in capital \_\_\_\_\_
- h. Taxes payable \_\_\_\_\_



**M2-23. Determining Missing Information Using the Accounting Equation (LO1)**

Use your knowledge of accounting relations to complete the following table for Boatsman Company.

	2008	2009
Beginning retained earnings . . . . .	\$89,089	\$ ?
Net income (loss) . . . . .	?	48,192
Dividends . . . . .	0	15,060
Ending retained earnings . . . . .	69,634	?

**M2-24. Reconciling Retained Earnings (LO1)**

Following is financial information from **Johnson & Johnson** for 2007. Prepare the 2007 retained earnings reconciliation for Johnson & Johnson (\$ millions).

**Johnson & Johnson (JNJ)**

Retained earnings, Dec. 31, 2006 . . . . .	\$49,290	Dividends . . . . .	\$4,670
Net earnings . . . . .	10,576	Retained earnings, Dec. 31, 2007 . . . . .	?
Other retained earnings changes . . . . .	84		

**M2-25. Analyzing Transactions to Compute Net Income (LO1)**

Wasley Corp., a start-up company, provided services that were acceptable to its customers and billed those customers for \$350,000 in 2009. However, Wasley collected only \$280,000 cash in 2009, and the remaining \$70,000 was collected in 2010. Wasley employees earned \$200,000 in 2009 wages that were not paid until the first week of 2010. How much net income does Wasley report for 2009? For 2010 (assuming no additional transactions)?

**M2-26. Analyzing Transactions Using the Financial Statement Effects Template (LO3)**

Report the effects for each of the following transactions using the financial statement effects template.

- Issue stock for \$1,000 cash.
- Purchase inventory for \$500 cash.
- Sell inventory in transaction *b* for \$2,000 on credit.
- Receive \$2,000 cash toward transaction *c* receivable.

## EXERCISES

**E2-27. Constructing Financial Statements from Account Data (LO1)**

Barth Company reports the following year-end account balances at December 31, 2009. Prepare the 2009 income statement and the balance sheet as of December 31, 2009.

**WebAssign**

Accounts payable . . . . .	\$ 16,000	Inventory . . . . .	\$ 36,000
Accounts receivable . . . . .	30,000	Land . . . . .	80,000
Bonds payable, long-term . . . . .	200,000	Goodwill . . . . .	8,000
Buildings . . . . .	151,000	Retained earnings . . . . .	60,000
Cash . . . . .	48,000	Sales revenue . . . . .	400,000
Common stock . . . . .	150,000	Supplies inventory . . . . .	3,000
Cost of goods sold . . . . .	180,000	Supplies expense . . . . .	6,000
Equipment . . . . .	70,000	Wages expense . . . . .	40,000

**E2-28. Constructing Financial Statements from Transaction Data (LO1)**

Baiman Corporation commences operations at the beginning of January. It provides its services on credit and bills its customers \$30,000 for January sales. Its employees also earn January wages of \$12,000 that are not paid until the first of February. Complete the following statements for the month-end of January.

Income Statement		Balance Sheet	
Sales . . . . .	\$	Cash . . . . .	\$
Wages expense . . . . .	_____	Accounts receivable . . . . .	_____
Net income (loss) . . . . .	\$ _____	Total assets . . . . .	\$ _____
		Wages payable . . . . .	\$
		Retained earnings . . . . .	_____
		Total liabilities and equity . . . . .	\$ _____

**E2-29. Analyzing and Reporting Financial Statement Effects of Transactions (LO3)**

M.E. Carter launched a professional services firm on March 1. The firm will prepare financial statements at each month-end. In March (its first month), Carter executed the following transactions. Prepare an income statement for Carter Company for the month of March.

- a. Carter (owner) invested in the company, \$100,000 cash and \$20,000 in property and equipment. The company issued common stock to Carter.
- b. The company paid \$3,200 cash for rent of office furnishings and facilities for March.
- c. The company performed services for clients and immediately received \$4,000 cash earned.
- d. The company performed services for clients and sent a bill for \$14,000 with payment due within 60 days.
- e. The company compensated an office employee with \$4,800 cash as salary for March.
- f. The company received \$10,000 cash as partial payment on the amount owed from clients in transaction *d*.
- g. The company paid \$935 cash in dividends to Carter (owner).

**E2-30. Analyzing Transactions Using the Financial Statement Effects Template (LO3)**

Enter the effects of each of the transactions *a* through *g* from Exercise 2-29 using the financial statement effects template shown in the module.



**E2-31. Identifying and Classifying Balance Sheet and Income Statement Accounts (LO1)**

Following are selected accounts for **Procter & Gamble**. (*a*) Indicate whether each account appears on the balance sheet (B) or income statement (I). (*b*) Using the following data, compute total assets and total expenses. (*c*) Compute net profit margin (net income/sales) and total liabilities-to-equity ratio (total liabilities/stockholders' equity).

(\$ millions)	Amount	Classification
Sales . . . . .	\$83,503	
Accumulated depreciation . . . . .	17,446	
Depreciation expense . . . . .	3,166	
Retained earnings . . . . .	48,986	
Net income . . . . .	12,075	
Property, plant & equipment, net . . . . .	20,640	
Selling, general & administrative expense . . . . .	25,725	
Accounts receivable . . . . .	6,761	
Total liabilities . . . . .	74,498	
Stockholders' equity . . . . .	69,494	

**E2-32. Identifying and Classifying Balance Sheet and Income Statement Accounts (LO1)**

Following are selected accounts for **Target Corporation**. (*a*) Indicate whether each account appears on the balance sheet (B) or income statement (I). (*b*) Using the following data, compute total assets and total expenses. (*c*) Compute net profit margin (net income/sales) and total liability-to-equity ratio (total liabilities/stockholders' equity).



(\$ millions)	Amount	Classification
Sales . . . . .	\$61,471	
Accumulated depreciation . . . . .	7,887	
Depreciation expense . . . . .	1,659	
Retained earnings . . . . .	12,761	
Net income . . . . .	2,849	
Property, plant & equipment, net . . . . .	24,095	
Selling, general & administrative expense . . . . .	13,704	
Accounts receivable . . . . .	8,054	
Total liabilities . . . . .	29,253	
Stockholders' equity . . . . .	15,307	



**E2-33. Comparing Income Statements and Balance Sheets of Competitors (LO1)**

Following are selected income statement and balance sheet data from two retailers: **Abercrombie & Fitch** (clothing retailer in the high-end market) and **TJX Companies** (clothing retailer in the value-priced market).

Income Statement (\$ millions)	ANF	TJX
Sales . . . . .	\$3,750	\$18,647
Cost of goods sold . . . . .	1,239	14,082
Gross profit . . . . .	2,511	4,565
Total expenses . . . . .	2,035	3,793
Net income . . . . .	<u>\$ 476</u>	<u>\$ 772</u>

Balance Sheet (\$ millions)	ANF	TJX
Current assets . . . . .	\$1,140	\$3,992
Long-term assets . . . . .	1,427	2,608
Total assets . . . . .	<u>\$2,567</u>	<u>\$6,600</u>
Current liabilities . . . . .	\$ 543	\$2,761
Long-term liabilities . . . . .	406	1,708
Total liabilities . . . . .	949	4,469
Stockholders' equity . . . . .	1,618	2,131
Total liabilities and equity . . . . .	<u>\$2,567</u>	<u>\$6,600</u>

- Express each income statement amount as a percentage of sales. Comment on any differences observed between these two companies, especially as they relate to their respective business models.
- Express each balance sheet amount as a percentage of total assets. Comment on any differences observed between these two companies, especially as they relate to their respective business models.
- Which company has a higher proportion of stockholders' equity (and a lower proportion of debt)? What do the ratios tell us about relative riskiness of the two companies?

**E2-34. Comparing Income Statements and Balance Sheets of Competitors (LO1)**

Following are selected income statement and balance sheet data from two computer competitors: **Apple** and **Dell**.

**Apple (AAPL)**  
**Dell (DELL)**

Income Statement (\$ millions)	Apple	Dell
Sales . . . . .	\$24,006	\$61,133
Cost of goods sold . . . . .	15,852	49,462
Gross profit . . . . .	8,154	11,671
Total expenses . . . . .	4,658	8,724
Net income . . . . .	<u>\$ 3,496</u>	<u>\$ 2,947</u>

Balance Sheet (\$ millions)	Apple	Dell
Current assets . . . . .	\$21,956	\$19,880
Long-term assets . . . . .	3,391	7,681
Total assets . . . . .	<u>\$25,347</u>	<u>\$27,561</u>
Current liabilities . . . . .	\$ 9,299	\$18,526
Long-term liabilities . . . . .	1,516	5,206
Total liabilities . . . . .	10,815	23,732
Stockholders' equity . . . . .	14,532	3,829
Total liabilities and equity . . . . .	<u>\$25,347</u>	<u>\$27,561</u>

- a. Express each income statement amount as a percentage of sales. Comment on any differences observed between the two companies, especially as they relate to their respective business models. (*Hint: Apple’s gross profit as a percentage of sales is considerably higher than Dell’s. What aspect of Apple’s business do we believe is driving its profitability?*)
- b. Apple has chosen to structure itself with a higher proportion of equity (and a lower proportion of debt) than Dell. How does this capital structure decision affect our evaluation of the relative riskiness of these two companies?

**E2-35. Comparing Income Statements and Balance Sheets of Competitors (LO1)**

Comcast (CMCSA)  
Verizon (VZ)

Following are selected income statement and balance sheet data for two communications companies: Comcast and Verizon.

Income Statement (\$ millions)	Comcast	Verizon
Sales . . . . .	\$30,895	\$93,469
Operating costs . . . . .	25,317	77,891
Operating profit . . . . .	5,578	15,578
Nonoperating expenses . . . . .	2,991	10,057
Net income . . . . .	<u>\$ 2,587</u>	<u>\$ 5,521</u>

Balance Sheet (\$ millions)	Comcast	Verizon
Current assets . . . . .	\$ 3,667	\$ 18,698
Long-term assets . . . . .	109,750	168,261
Total assets . . . . .	<u>\$113,417</u>	<u>\$186,959</u>
Current liabilities . . . . .	\$ 7,952	\$ 24,741
Long-term liabilities . . . . .	63,875	79,349
Total liabilities . . . . .	71,827	104,090
Stockholders’ equity . . . . .	41,590	82,869
Total liabilities and equity . . . . .	<u>\$113,417</u>	<u>\$186,959</u>

- a. Express each income statement amount as a percentage of sales. Comment on any differences observed between the two companies.
- b. Express each balance sheet amount as a percentage of total assets. Comment on any differences observed between the two companies, especially as they relate to their respective business models.
- c. Both Verizon and Comcast have chosen a capital structure with a higher proportion of liabilities than equity. How does this capital structure decision affect our evaluation of the riskiness of these two companies? Take into consideration the large level of capital expenditures that each must make to remain competitive.

**E2-36. Comparing Financial Information Across Industries (LO1)**

TJX Companies (TJX)  
Apple, Inc (AAPL)

Use the data and computations required in parts a and b of exercises E2-33 and E2-34 to compare TJX Companies and Apple, Inc.

- a. Compare gross profit and net income as a percentage of sales for these two companies. How might differences in their respective business models explain the differences observed?
- b. Compare sales versus total assets. What do observed differences indicate about the relative capital intensity of these two industries?
- c. Which company has the higher percentage of total liabilities to stockholders’ equity? What do these ratios imply about the relative riskiness of these two companies?
- d. Compare the ratio of net income to stockholders’ equity for these two companies. Which business model appears to yield higher returns on shareholder investment? Using answers to parts a through c above, identify the factors that appear to drive the ratio of net income to stockholders’ equity.

**E2-37. Analyzing Transactions Using the Financial Statement Effects Template (LO3)**

Record the effect of each of the following transactions for Hora Company using the financial statement effects template.

- Wages of \$500 are earned by employees but not yet paid.
- \$2,000 of inventory is purchased on credit.
- Inventory purchased in transaction *b* is sold for \$3,000 on credit.
- Collected \$3,000 cash from transaction *c*.
- Equipment is acquired for \$5,000 cash.
- Recorded \$1,000 depreciation expense on equipment from transaction *e*.
- Paid \$10,000 cash toward a note payable that came due.
- Paid \$2,000 cash for interest on borrowings.

**PROBLEMS****P2-38. Constructing and Analyzing Balance Sheet Amounts from Incomplete Data (LO1)**

Selected balance sheet amounts for **3M Company**, a manufacturer of consumer and business products, for five recent years follow.

**WebAssign**  
3M Company (MMM)

\$ millions	Current Assets	Long-Term Assets	Total Assets	Current Liabilities	Long-Term Liabilities	Total Liabilities	Stockholders' Equity*
2005 . . . . .	\$7,115	\$ ?	\$20,541	\$ ?	\$4,908	\$10,146	\$10,395
2006 . . . . .	8,946	12,348	?	7,323	4,012	?	9,959
2007 . . . . .	?	14,856	24,694	5,362	7,585	12,947	?

\* includes minority interest

**Required**

- Compute the missing balance sheet amounts for each of the three years shown.
- What types of accounts would we expect to be included in current assets? In long-term assets?

**P2-39. Analyzing Transactions Using the Financial Statement Effects Template (LO3)**

Sefcik Company began operations on the first of October. Following are the transactions for its first month of business.

- S. Sefcik launched Sefcik Company and invested \$50,000 into the business in exchange for common stock. The company also borrowed \$100,000 from a local bank.
- Sefcik Co. purchased equipment for \$95,000 cash and purchased inventory of \$40,000 on credit (the company still owes its suppliers for the inventory at month-end).
- Sefcik Co. sold inventory costing \$30,000 for \$50,000 cash.
- Sefcik Co. paid \$10,000 cash for wages owed employees for October work.
- Sefcik Co. paid interest on the bank loan of \$1,000 cash.
- Sefcik Co. recorded \$500 of depreciation expense related to its equipment.
- Sefcik Co. paid a dividend of \$2,000 cash.

**Required**

- Record the effects of each transaction using the financial statement effects template.
- Prepare the income statement and balance sheet at the end of October.

**P2-40. Analyzing Transactions Using the Financial Statement Effects Template (LO3)**

Following are selected transactions of Mogg Company. Record the effects of each using the financial statement effects template.

**WebAssign**

- Shareholders contribute \$10,000 cash to the business in exchange for common stock.
- Employees earn \$500 in wages that have not been paid at period-end.
- Inventory of \$3,000 is purchased on credit.
- The inventory purchased in transaction 3 is sold for \$4,500 on credit.
- The company collected the \$4,500 owed to it per transaction 4.
- Equipment is purchased for \$5,000 cash.
- Depreciation of \$1,000 is recorded on the equipment from transaction 6.

continued

8. The Supplies account had a \$3,800 balance at the beginning of this period; a physical count at period-end shows that \$800 of supplies are still available. No supplies were purchased during this period.
9. The company paid \$10,000 cash toward the principal on a note payable; also, \$500 cash is paid to cover this note's interest expense for the period.
10. The company receive \$8,000 cash in advance for services to be delivered next period.

**WebAssign**

**P2-41. Comparing Operating Characteristics Across Industries (LO1)**

Following are selected income statement and balance sheet data for companies in different industries.

	\$ millions	Sales	Cost of Goods Sold	Gross Profit	Net income	Assets	Liabilities	Stockholders' Equity
Target (TGT)	<b>Target Corp.</b>	\$63,367	\$41,895	\$21,472	\$2,849	\$44,560	\$29,253	\$15,307
Nike (NKE)	<b>Nike, Inc.</b>	18,627	10,240	8,387	1,883	12,443	4,617	7,826
Harley-Davidson (HOG)	<b>Harley-Davidson</b>	5,727	3,613	2,114	934	5,657	3,282	2,375
Cisco Systems (CSCO)	<b>Cisco Systems</b>	39,540	14,056	25,484	8,052	58,734	24,332	34,402

**Required**

- a. Compute the following ratios for each company.
  1. Gross profit/Sales
  2. Net income/Sales
  3. Net income/Stockholders' equity
  4. Liabilities/Stockholders' equity
- b. Comment on any differences among the companies' gross profit to sales ratios and net income as a percentage of sales. Do differences in the companies' business models explain the differences observed?
- c. Which company reports the highest ratio of net income to equity? Suggest one or more reasons for this result.
- d. Which company has financed itself with the highest percentage of liabilities to equity? Suggest one or more reasons why this company can take on such debt levels.

**P2-42. Comparing Cash Flows Across Retailers (LO1)**

Following are selected accounts from the income statement and the statement of cash flows for several retailers.

	\$ millions	Sales	Net Income	Cash Flows from		
				Operating	Investing	Financing
Macy's (M)	<b>Macy's</b>	\$ 26,313	\$ 893	\$ 2,231	\$ (789)	\$ (2,069)
Home Depot (HD)	<b>Home Depot, Inc.</b>	77,349	4,395	5,727	4,758	(10,639)
Staples (SPLS)	<b>Staples, Inc.</b>	19,373	996	1,361	(218)	(966)
Target (TGT)	<b>Target Corp.</b>	63,367	2,849	4,125	(6,195)	3,707
Wal-Mart (WMT)	<b>Wal-Mart Stores</b>	378,799	12,731	20,354	(15,670)	(7,134)

**Required**

- a. Compute the ratio of net income to sales for each company. Rank the companies on the basis of this ratio. Do their respective business models give insight into these differences?
- b. Compute net cash flows from operating activities as a percentage of sales. Rank the companies on the basis of this ratio. Does this ranking coincide with the ratio rankings from part a? Suggest one or more reasons for any differences you observe.
- c. Compute net cash flows from investing activities as a percentage of sales. Rank the companies on the basis of this ratio. Does this ranking coincide with the ratio rankings from part a? Suggest one or more reasons for any differences you observe.
- d. All of these companies, except Target, report negative cash flows from financing activities. What does it mean for a company to have net cash *outflow* from financing?

**P2-43. Interpreting the Statement of Cash Flows (LO1)**

Following is the statement of cash flows for **Wal-Mart Stores, Inc.**

Wal-Mart (WMT)

<b>WAL-MART STORES, INC</b>	
<b>Statement of Cash Flows</b>	
<b>For Year Ended January 31, 2008 (\$ millions)</b>	
Cash flows from operating activities	
Net income . . . . .	\$ 12,731
Loss from discontinued operations, net of tax . . . . .	153
	<u>12,884</u>
Income from continuing operations . . . . .	12,884
Adjustments to reconcile income from continuing operations to net cash provided by operating activities:	
Depreciation and amortizations . . . . .	6,317
Deferred income taxes . . . . .	(8)
Other operating activities . . . . .	601
Changes in certain assets and liabilities, net of effects of acquisitions:	
Increase in accounts receivable . . . . .	(564)
Increase in inventories. . . . .	(775)
Increase in accounts payable . . . . .	865
Increase in accrued liabilities . . . . .	1,034
	<u>20,354</u>
Net cash provided by operating activities of continuing operations . . . . .	20,354
Net cash provided by operating activities . . . . .	<u>20,354</u>
Cash flows from investing activities	
Payments for property and equipment . . . . .	\$(14,937)
Proceeds from disposal of property and equipment . . . . .	957
(Payments for) proceeds from disposal of certain international operations, net . . . . .	(257)
Investment in international operations, net of cash acquired. . . . .	(1,338)
Other investing activities. . . . .	(95)
	<u>(15,670)</u>
Net cash used in investing activities of continuing operations . . . . .	(15,670)
Net cash used in investing activities . . . . .	<u>(15,670)</u>
Cash flows from financing activities	
Increase (decrease) in commercial paper . . . . .	2,376
Proceeds from issuance of long-term debt . . . . .	11,167
Payment of long-term debt. . . . .	(8,723)
Dividends paid . . . . .	(3,586)
Purchase of company stock. . . . .	(7,691)
Payment of capital lease obligations . . . . .	(343)
Other financing activities . . . . .	(334)
	<u>(7,134)</u>
Net cash used in financing activities . . . . .	(7,134)
Effect of exchange rate changes on cash . . . . .	252
Net (decrease) increase in cash . . . . .	\$ (2,198)
Cash at beginning of year . . . . .	7,767
Cash at end of year . . . . .	<u>\$ 5,569</u>

**Required**

- Why does Wal-Mart add back depreciation to compute net cash flows from operating activities?
- Explain why the increase in receivables and inventories is reported as a cash outflow. Why do accounts payable provide a source of cash? Explain why the increase in accrued liabilities is reported as a cash inflow.
- Wal-Mart reports that it invested \$14,937 million in property and equipment. Is this an appropriate type of expenditure for Wal-Mart to make? What relation should expenditures for PPE assets have with depreciation expense?
- Wal-Mart indicates that it paid \$7,691 million to repurchase its common stock in fiscal 2007 and, in addition, paid dividends of \$3,586 million. Thus, Wal-Mart paid \$11,277 million of cash to its shareholders during the year. How do we evaluate that use of cash relative to other possible uses for Wal-Mart's cash?
- Provide an overall assessment of Wal-Mart's cash flows for 2007. In the analysis, consider the sources and uses of cash.

**P2-44. Interpreting the Statement of Cash Flows (LO1)**

Verizon (VZ) Following is the statement of cash flows for Verizon.

<b>VERIZON</b> <b>Statement of Cash Flows</b> <b>For Year Ended December 31, 2007 (\$ millions)</b>	
<b>Cash Flows from Operating Activities</b>	
Net income . . . . .	\$ 5,521
Adjustments to reconcile net income to net cash provided by operating activities—continuing operations:	
Depreciation and amortization expense . . . . .	14,377
Employee retirement benefits . . . . .	1,720
Deferred income taxes . . . . .	408
Provision for uncollectible accounts . . . . .	1,047
Equity in earnings of unconsolidated businesses, net of dividends received . . . . .	1,986
Extraordinary item, net of tax . . . . .	131
Changes in current assets and liabilities, net of effects from acquisition or disposition of businesses:	
Accounts receivable . . . . .	(1,931)
Inventories . . . . .	(255)
Other assets . . . . .	\$ (140)
Accounts payable and accrued liabilities . . . . .	(567)
Other, net . . . . .	4,012
Net cash provided by operating activities—continuing operations . . . . .	26,309
Net cash provided by operating activities—discontinued operations . . . . .	(570)
Net cash provided by operating activities . . . . .	<u>25,739</u>
<b>Cash Flows from Investing Activities</b>	
Capital expenditures (including capitalized software) . . . . .	(17,538)
Acquisitions, net of cash acquired, and investments . . . . .	(763)
Net change in short-term and other current investments . . . . .	169
Other, net . . . . .	1,267
Net cash used in investing activities—continuing operations . . . . .	(16,865)
Net cash provided by (used in) investing activities—discontinued operations . . . . .	757
Net cash used in investing activities . . . . .	<u>(16,108)</u>
<b>Cash Flows from Financing Activities</b>	
Proceeds from long-term borrowings . . . . .	3,402
Repayments of long-term borrowings and capital lease obligations . . . . .	(5,503)
Increase (decrease) in short-term obligations, excluding current maturities . . . . .	(3,252)
Dividends paid . . . . .	(4,773)
Proceeds from sale of common stock . . . . .	1,274
Purchase of common stock for treasury . . . . .	(2,843)
Other, net . . . . .	(2)
Net cash used in financing activities—continuing operations . . . . .	(11,697)
Increase (decrease) in cash and cash equivalents . . . . .	\$ (2,066)
Cash and cash equivalents, beginning of year . . . . .	3,219
Cash and cash equivalents, end of year . . . . .	<u>\$ 1,153</u>

**Required**

- Why does Verizon add back depreciation to compute net cash flows from operating activities? What does the size of the depreciation add-back indicate about the relative capital intensity of this industry?
- Verizon reports that it invested \$17,538 million in property and equipment. These expenditures are necessitated by market pressures as the company faces stiff competition from other communications companies, such as Comcast. Where in the 10-K might we find additional information about these capital expenditures to ascertain whether Verizon is addressing the company's most pressing needs? What relation might we expect between the size of these capital expenditures and the amount of depreciation expense reported?

*continued*

- c. Verizon’s statement of cash flows indicates that the company paid \$8,755 million in debt payments, financed, in part, by the additional borrowing of \$3,402 million on short-term notes. What problem does Verizon’s high debt load pose for its ability to maintain the level of capital expenditures necessary to remain competitive in its industry?
- d. During the year, Verizon paid dividends of \$4,773 million but did not repay a sizeable portion of its debt. How do dividend payments differ from debt payments? Why would Verizon continue to pay dividends in light of cash demands for needed capital expenditures and debt repayments?
- e. Provide an overall assessment of Verizon’s cash flows for 2007. In the analysis, consider the sources and uses of cash.

**P2-45. Analyzing Transactions Using the Financial Statement Effects Template (LO3)**

On March 1, S. Penman (owner) launched AniFoods, Inc., an organic foods retailing company. Following are the transactions for its first month of business.

1. S. Penman (owner) contributed \$100,000 cash to the company in return for common stock. Penman also lent the company \$55,000. This \$55,000 note is due one year hence.
2. The company purchased equipment in the amount of \$50,000, paying \$10,000 cash and signing a note payable to the equipment manufacturer for the remaining balance.
3. The company purchased inventory for \$80,000 cash in March.
4. The company had March sales of \$100,000 of which \$60,000 was for cash and \$40,000 on credit. Total cost of goods sold for its March sales was \$70,000.
5. The company purchased future advertising time from a local radio station for \$10,000 cash.
6. During March, \$7,500 worth of radio spots purchased in transaction 5 are aired. The remaining spots will be aired in April.
7. Employee wages earned and paid during March total \$15,000 cash.
8. Prior to disclosing the financial statements, the company recognized that employees had earned an additional \$1,000 in wages that will be paid in the next period.
9. The company recorded \$2,000 of depreciation for March relating to its equipment.

**Required**

- a. Record the effect of each transaction using the financial statement effects template.
- b. Prepare a March income statement and a balance sheet as of the end of March for AniFoods, Inc

**P2-46. Analyzing Transactions Using the Financial Statement Effects Template (LO3)**

Hanon Advertising Company began the current month with the following balance sheet.



Cash . . . . .	\$ 80,000	Liabilities . . . . .	\$ 70,000
Noncash assets . . . . .	135,000	Contributed capital . . . . .	110,000
		Earned capital . . . . .	35,000
Total assets . . . . .	\$215,000	Total liabilities and equity . . . . .	\$215,000

Following are summary transactions that occurred during the current month.

1. The company purchased supplies for \$5,000 cash; none were used this month.
2. Services of \$2,500 were performed this month on credit.
3. Services were performed for \$10,000 cash this month.
4. The company purchased advertising for \$8,000 cash; the ads will run next month.
5. The company received \$1,200 cash as partial payment on accounts receivable from transaction 2.
6. The company paid \$3,400 cash toward the accounts payable from transaction 1.
7. Paid \$3,100 cash toward this month’s wages expenses.
8. The company declared and paid dividends of \$500 cash.

**Required**

- a. Record the effects of each transaction using the financial statement effects template.
- b. Prepare the income statement for this month and the balance sheet as of month-end.

**P2-47. Reconciling and Computing Operating Cash Flows from Net Income (LO1)**

Petroni Company reports the following selected results for its calendar year 2009.



Net income . . . . .	\$130,000
Depreciation expense . . . . .	25,000
Accounts receivable increase . . . . .	10,000
Accounts payable increase . . . . .	6,000
Prepaid expenses decrease . . . . .	3,000
Wages payable decrease . . . . .	4,000

**Required**

- a. Prepare the operating section only of Petroni Company’s statement of cash flows for 2009.
- b. Does the positive sign on depreciation expense indicate that the company is generating cash by recording depreciation? Explain.
- c. Explain why the increase in accounts receivable is a use of cash in the statement of cash flows.
- d. Explain why the decrease in prepaid expense is a source of cash in the statement of cash flows.

**P2-48. Analyzing Transactions Using the Financial Statement Effects Template (LO3)**

Werner Realty Company began the month with the following balance sheet.

Cash . . . . .	\$ 30,000	Liabilities . . . . .	\$ 90,000
Noncash assets . . . . .	225,000	Contributed capital . . . . .	45,000
		Earned capital . . . . .	120,000
Total assets . . . . .	\$255,000	Total liabilities and equity . . . . .	\$255,000

Following are summary transactions that occurred during the current month.

1. The company purchased \$6,000 of supplies on credit.
2. The company received \$8,000 cash from a new customer for services to be performed next month.
3. The company paid \$6,000 cash to cover office rent for two months (the current month and the next).
4. The company billed clients for \$25,000 of work performed.
5. The company paid employees \$6,000 cash for work performed.
6. The company collected \$25,000 cash from accounts receivable in transaction 4.
7. The company recorded \$3,000 depreciation on its equipment.
8. At month-end, \$2,000 of supplies purchased in transaction 1 are still available; no supplies were available when the month began.

**Required**

- a. Record the effects of each transaction using the financial statement effects template.
- b. Prepare the income statement for this month and the balance sheet as of month-end.

## MANAGEMENT APPLICATIONS

**MA2-49. Understanding the Company Operating Cycle and Management Strategy (LO1)**

Consider the operating cycle as depicted in Exhibit 2.4, to answer the following questions.

- a. Why might a company want to reduce its cash conversion cycle? (*Hint: Consider the financial statement implications of reducing the cash conversion cycle.*)
- b. How might a company reduce its cash conversion cycle?
- c. Examine and discuss the potential impacts on *customers* and *suppliers* of taking the actions identified in part *b*.

**MA2-50. Ethics and Governance: Understanding Revenue Recognition and Expense Matching (LO1)**

Revenue should be recognized when it is earned and expense when incurred. Given some lack of specificity in these terms, companies have some latitude when applying GAAP to determine the timing and amount of revenues and expenses. A few companies use this latitude to manage reported earnings. Some have argued that it is not necessarily bad for companies to manage earnings in that, by doing so, management (1) can better provide investors and creditors with reported earnings that are closer to “core” earnings (that is, management purges earnings of components deemed irrelevant or distracting so that share prices better reflect company performance); and (2) can present the company in the best light, which benefits both shareholders and employees—a Machiavellian argument that “the end justifies the means.”

- a. Is it good that GAAP is written as broadly as it is? Explain. What are the pros and cons of defining accounting terms more strictly?
- b. Assess (both pro and con) the Machiavellian argument above that defends managing earnings.