

## Economic Environment of Accounting Information

### TAKEAWAYS

When you complete this chapter you should be able to:

1. Identify the basic financial statements—the income statement, the balance sheet, the statement of cash flow, and the statement of shareholders' equity.
2. Explain how companies acquire capital from investors who purchase the debt and equity securities issued by such firms to obtain an expected return commensurate with the risk the investors assume.
3. Describe the role of accounting standards in facilitating a properly functioning capital market.
4. Explain the conflicts of interest that can arise between executives, debtholders, and shareholders of a corporation and the costs associated with the divergent incentives that can arise when ownership and management of a company are separated.

#### Where are we?

In this chapter, the financial statements of Amazon.com are used to illustrate the accounting information that companies provide to debtholders and shareholders. The chapter discusses how the demand for capital by companies that have insufficient funds to meet their investment needs and the supply of capital come together in a capital market to set equilibrium prices for stocks and bonds. The chapter also discusses how the credibility of accounting information is enhanced when a reputable external auditor provides an opinion about the accounting information. Finally, the chapter investigates the use of accounting data in internal decision-making by management and its use in contracts between shareholders and managers and between shareholders and debtholders to attenuate the conflicts of interest that can arise between the various constituencies of a company.

#### Where are we going?

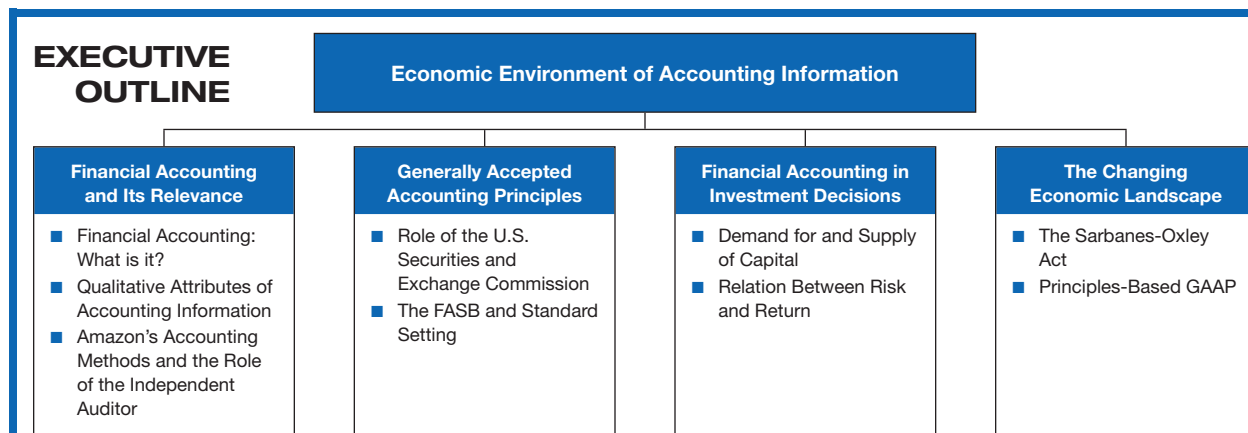
In the next chapter we illustrate how accounting events are analyzed, quantified, summarized, and ultimately disclosed in a company's basic financial statements. Concepts such as assets, liabilities, revenues, expenses, and cash flow are defined and used in an example that demonstrates the preparation of basic financial statements. The chapter also introduces the use of financial statements for purposes of evaluating a company's financial performance. Finally, several recent accounting scandals are used to illustrate how some managers enhance their company's reported financial performance through the selection and use of alternative accounting methods.

Amazon.com, Inc. was one of the first, and became perhaps the best known, internet-based reseller of retail goods. The company was one of the high-flying internet stocks that became a favorite of equity investors during the stock market bubble period of the late 1990s. Like many dot.com companies that lacked a history of proven earnings, investors began to question Amazon's business model following the U.S. stock market decline of 2001–2002. Investors also began questioning the way the stock market valued companies during this period of so-called "irrational exuberance." As a consequence, there eventually occurred a shift back to firm valuations based on such business fundamentals as strong operating earnings and a solid balance sheet.

Amazon.com was founded by Jeff Bezos in 1995 under the name Cadabra.com as an online bookstore to compete with traditional "brick-and-mortar" bookstores and mail-order catalogs. Bezos renamed the company "Amazon" after the world's largest river and took the company public in 1997. Like the South American river, Amazon.com was huge in scale, offering many times the selection of products of even its largest competitors. Amazon has since greatly expanded its product offerings to include DVDs, music CDs, computer software, video games, electronics, clothing, furniture, food, toys and much more.

Bezos believed in the long-term prospects for his company, although he did not expect the business to produce a profit for many years. As history has since demonstrated, Bezos' business strategy proved successful. Unlike many internet companies, Amazon grew at a steady pace and focused on such business fundamentals as revenue growth, cash flows, and attaining profitability. The bursting of the dot.com bubble in the early 2000s forced many e-companies out of business. Amazon, however, persevered and eventually reported its first profit in the fourth quarter of 2002. Amazon.com has continued to report profits every year since then, earning net income of \$35 million in 2003, \$588 million in 2004, \$359 million in 2005, and \$190 million in 2006. Despite its recent financial success, however, Amazon's cumulative profit remains negative, largely as a consequence of its early history of operating losses. Today, Amazon.com trades on the NASDAQ stock exchange under the symbol AMZN and is a member of the prestigious Standard and Poor's 500 Index, an index of the shares of the 500 largest companies traded on U.S. stock exchanges.

In this chapter, we examine the financial statements of Amazon, as well as consider the generally accepted accounting principles that have been established to ensure a level of comparability among the many public companies, like Amazon, that produce financial statements for use by investors, lenders, and shareholders.



## FINANCIAL ACCOUNTING AND ITS RELEVANCE

Most individuals are familiar with the game of baseball and its many rules. Most know, for instance, that according to the rules of the game, the team with the most runs scored at the completion of play is considered to be the winner. Of course the rules do much more than decide the measure by which we are able to determine which team won and which team lost; they also provide a framework within which to play the game and settle disagreements along the way. Imagine the chaos that might ensue if there were no mutually accepted rules of the game. How would it be determined, for instance, if a base runner was out or was safe, if a pitch was a ball or a strike, and so on? Without an accepted set of rules governing the game, it would be impossible to play the sport and insure a consistent set of outcomes.

Keeping score with an accepted set of rules applies to more activities than just baseball; it also applies to running a business like Amazon.com. In fact, the similarities between baseball and financial accounting are probably closer

than you might imagine. Understanding the “rules of the game” also helps us do more than simply declare the winner of a game or calculate the annual profit of a business; it enables us to keep track of various measures that can be used to determine the quality of a team’s play or the quality of a business’s operations. Our knowledge of the rules and how teams or businesses have performed in the past—for example, team batting averages, pitching records, and fielding percentages for baseball teams and assorted financial ratios such as the return on assets, return on equity or return on sales for a business—can, in turn, help us to predict how teams and businesses will perform in the future. This knowledge, as you will see in subsequent chapters, is invaluable when attempting to assess the value of a sports franchise or a business enterprise.

Simply reading a rule book, however, may not be sufficient to obtain a complete understanding as to how a game is played and scored. It is also critical to understand the limitations regarding how the rules are applied, along with what is not covered by the rules. This caveat especially applies to financial accounting. Imagine the difficulty that would occur if each baseball team got to decide the distance from home plate to first base in its home stadium. Or imagine the confusion if, with the bases loaded, a team could choose which direction to run toward home plate, scoring either from first base or from third base. Unfortunately, as we will see in the following chapters of this textbook, financial accounting permits considerable flexibility in determining the applicability of its “rules” to individual business enterprises. As a consequence, the rules governing financial accounting will be seen to involve considerable managerial judgment. In baseball, for example, while general guidelines exist as to whether a pitch should be called a ball or a strike, it is up to an umpire’s judgment to make the exact call. In a similar fashion, while general accounting guidelines exist as to what is considered revenue for a business, financial accounting often requires that corporate managers exercise judgment in assessing just how much revenue a business earned in a given fiscal period. In addition to the obvious analytical challenges that can result from this flexibility in the application of the rules of the game, business analysis is also often hampered by a lack of certain key information. Many of the factors that are critical to a business’s operating success, to include the quality of its workforce and a well-recognized brand name, are not measured and reported under current financial accounting rules.

A theme that will be repeated throughout this textbook is that accounting information is useful not only for keeping score of a business’s past operating performance and financial health but also for predicting its future performance and financial well-being, and ultimately, for helping to assess firm value. However, to be a good scorekeeper and a good analyst, one needs to know not only the rules of the game, but also how to interpret the data resulting from the application of the rules, the limitations of the rules, and when to make adjustments to the information to aid in its use for decision-making purposes.

## Financial Accounting: What is it?

**Financial accounting** concerns the preparation and use of the accounting information provided in a company’s publicly available financial statements. Users of financial accounting information include, among others, a company’s management, the shareholders who own the company through the shares they purchase, debtholders from whom the company borrows money, investment professionals who provide financial advice about the company, and governmental agencies like the U.S. Securities and Exchange Commission which regulates the dissemination of accounting information to the investing public. Unlike the external focus of financial accounting, **managerial accounting** focuses on the production of accounting information internal to a firm for deciding such operational questions as how much inventory to produce, what price to charge customers, and for measuring and rewarding the performance of a firm’s managers and employees. Managerial accounting information is rarely provided to anyone other than a firm’s board of directors, managers, and employees to avoid revealing proprietary information that might adversely affect a firm’s competitive position. The focus of this textbook is on financial accounting, and how financial advisors, investors, lenders, managers, and shareholders use this information for decision-making purposes.

Before getting into the details of how financial statements are prepared and analyzed, it is useful to see the end result of the financial accounting process—the financial statements themselves. For the moment, don’t worry about the numerous details that you will see since these details will be explored in later chapters. Company financial reports include many items besides the basic financial statements, such as explanatory footnotes, a chairman’s statement, and a management discussion and analysis of recent events and company performance. For simplicity, these latter items have been omitted and will be considered in subsequent chapters.

To begin, it is useful to obtain a “big picture” view of a company by reading the introductory information about a company’s business and its business strategy—that is, management’s view of where the company is going based on the resources it has available (human, physical, and financial). Reading the financial statements will help you determine whether a company has the necessary financial resources, or can acquire them, to get where they want to be.

Consider, for example, the business strategy of Amazon.com:

Amazon.com seeks to be the world’s most customer-centric company, where customers can find and discover anything they might want to buy online at a great price.

No small thinking here! If Amazon’s customer friendliness can attract the millions of customers that the company has the capacity to handle, and each customer buys something from Amazon, Amazon’s future sales could be substantial.

Investment professionals who track the performance of companies like Amazon formalize sales and sales growth projections by gathering data regarding consumer demand, product shipments, product prices and sales discounts. These projections are integral to the analytical reports developed by investment professionals concerning a company’s current financial health, and hence, its fair market value. Your review of Amazon’s financial statements is likely to be enhanced by obtaining and reviewing a copy of a reputable analyst’s report from any one of a variety of financial websites such as [Yahoo.com](http://Yahoo.com) or [MSN.com](http://MSN.com) or from a financial services company like [Merrill Lynch](http://MerrillLynch.com) or [Salomon Smith Barney](http://SalomonSmithBarney.com). As to the claims that the company is “customer-centric” and that “customers can find and discover anything they might want to buy,” you can verify these assertions yourself by logging on to Amazon’s website ([www.Amazon.com](http://www.Amazon.com)) if you haven’t done so already.

The basic financial statements for [Amazon.com](http://Amazon.com), Inc.—the balance sheet, the income statement, and the statement of cash flow—are provided in Exhibits 1.1, 1.2, and 1.3. (A fourth financial statement, the statement of shareholders’ equity, will be discussed later in this chapter.) The **balance sheet** in Exhibit 1.1 shows, for example, what resources the company currently has and who provided the financing to acquire the various resources—debtholders or shareholders. Specifically, Amazon’s balance sheet reveals the amount and type of assets owned, the liabilities owed, and the shareholders’ equity investment in the company. Assets refer to the resources of a company that are expected to provide future economic benefit. Liabilities represent the dollar value of the company’s obligations to repay monies loaned to it, to pay for goods or services received by it, or to fulfill commitments made by it. Shareholders’ equity, the difference between a company’s assets and liabilities, represents the shareholders’ (owners’) financial stake in a company. In essence, two investment constituencies provided the necessary financing for Amazon’s assets—the shareholders who own the company as a consequence of their share purchases and debtholders who have loaned money and other assets to the company.

Amazon’s balance sheet is based on the basic **accounting equation**, which asserts that a business’s assets must always equal the sum of its liabilities and its shareholders’ equity. By the end of 2005, Amazon’s balance sheet reveals that it had acquired nearly \$3.7 billion in assets while the company’s debt stood at \$3.45 billion (\$1.929 billion plus \$1.521 billion) and its shareholders’ equity totaled just \$246 million. Notice that although the shareholders contributed over \$2.2 billion to the business since its inception in 1997, only \$246 million in shareholders’ equity remains. To identify the cause of this decline in shareholders’ equity, we will need to explore Amazon’s income statement, which we consider shortly.

The presence of various accounts on Amazon’s balance sheet such as **accounts receivable**, the amount that Amazon expects to receive from its customers for prior online purchases, and **accounts payable**, the amount that Amazon expects to pay to its suppliers for prior credit purchases of inventory, indicates that this financial statement was prepared using the **accrual basis of accounting**. This approach requires Amazon to record

Access to corporate financial statements has increased greatly in recent years thanks to the World Wide Web. Companies such as Amazon often provide financial statements on their corporate website.

The basic accounting equation,  $\text{Assets} = \text{Liabilities} + \text{Shareholders' equity}$ , provides the foundation not for only the balance sheet, but more importantly for the entire methodology underpinning the recording of all accounting transactions. Each transaction that is recorded must be done so such that the equation remains in balance. For this reason, the term “double-entry” accounting is often used to describe this method of recording transactions.

An alternative to the accrual basis of accounting is the **cash basis of accounting**. Under the cash basis, the financial effects of a business event are recorded in the financial statements when the cash effect of the transaction occurs. Thus, a company records revenue from a sales transaction *only* after cash has been collected from the customer; similarly, expenses are recorded *only* when they are paid.

the financial effects of a business transaction *without* regard to the timing of the cash effects of the event. Thus, Amazon records the revenue from each sales transaction when it occurs regardless of whether the customer has paid for the ordered goods or not. Similarly, Amazon records the cost of doing business when such costs are incurred regardless of whether those costs have been paid or not. The balance sheets and income statements of most businesses are prepared using the accrual basis of accounting, as this approach is widely recognized as being superior to all other approaches for measuring the financial performance and health of a company.

<b>EXHIBIT 1.1</b>		<b>Consolidated Balance Sheet</b>	
<b>Amazon.com</b>			
<b>Consolidated Balance Sheet</b>			
		<b>December 31</b>	
(\$ millions)		<b>2005</b>	<b>2004</b>
<b>Assets</b>			
Current assets			
Cash and cash equivalents . . . . .		\$1,013	\$1,303
Marketable securities . . . . .		987	476
Inventories . . . . .		566	480
Accounts receivable and other current assets . . . . .		363	280
		<u>2,929</u>	<u>2,539</u>
Total current assets . . . . .			
Fixed assets, net . . . . .		348	246
Other assets . . . . .		419	463
		<u>\$3,696</u>	<u>\$3,248</u>
<b>Liabilities and stockholders' equity (deficit)</b>			
Current liabilities			
Accounts payable . . . . .		\$1,366	\$1,142
Other current liabilities . . . . .		563	478
		<u>1,929</u>	<u>1,620</u>
Total current liabilities . . . . .			
Long-term debt and other . . . . .		1,521	1,855
<b>Stockholders' equity (deficit)</b>			
Common stock, 5,000 authorized shares; issued and outstanding shares—			
416 and 410 shares . . . . .		4	4
Additional paid-in-capital . . . . .		2,263	2,123
Accumulated other comprehensive income . . . . .		6	32
Accumulated deficit . . . . .		(2,027)	(2,386)
		<u>246</u>	<u>(227)</u>
Total stockholders' equity (deficit) . . . . .			
<b>Total liabilities and stockholders' equity (deficit)</b> . . . . .		<b><u>\$3,696</u></b>	<b><u>\$3,248</u></b>

An important tenant underlying the accrual basis of accounting is the **going concern assumption**; that is, the notion that the basic financial statements are prepared assuming that a business will continue operating in the future unless there is substantial evidence to the contrary. If a business is expected to continue operating in the future, investors will focus on revenues and net income from the income statement in order to forecast a firm's future operating performance. If, on the other hand, a business is expected to cease operations, investors are likely to focus their attention more closely on shareholders' equity on the balance sheet to determine what an investor might receive if, and when, the company is liquidated. Academic research consistent with the going concern assumption indicates that in setting share prices, investors place relatively more weight on shareholders' equity on the balance sheet when a business is facing financial distress but on net income on the income statement when a business is financially healthy.<sup>1</sup>

Amazon's **income statement** in Exhibit 1.2 reports how much merchandise the company sold and how much profit, if any, it made from those sales. Amazon's consolidated statement of income reveals that the company's sales

<sup>1</sup> See M. Barth, W. Beaver and W. Landsman, "Relative Valuation Roles of Equity Book Value and Net Income as a Function of Financial Health," *Journal of Accounting and Economics* (February 1998).

grew to nearly \$8.5 billion by 2005. The ‘bottom line’ of the income statement indicates that Amazon earned a profit in each of the three years covered by the income statements (2003 to 2005). In contrast, Amazon racked up losses of just over \$3 billion in the years prior to 2003. A review of Amazon’s historical financial statements (not presented here) reveals that from 1996 until 2002, Amazon failed to earn a profit in any of the six years since it became a public company! This history of operating losses explains why the shareholders’ investment on the balance sheet was nearly wiped out.

You are probably wondering how a company like Amazon can sustain six years of operating losses and still remain in business! The answer to this question resides in Amazon’s statement of cash flow to which we now turn.

Exhibit 1.2 presents Amazon’s **consolidated income statement**. But just what was “consolidated” and what remains “unconsolidated”? Under the accounting standards of most countries, when one company obtains a majority of the voting shares of another company, the financial results of the two companies are combined and reported on a “consolidated” basis. Thus, in the case of Amazon, the consolidated income statement includes the complete financial results of Amazon’s majority-owned subsidiaries but only summary results of its subsidiaries in which its ownership interest is less than a majority.

<b>EXHIBIT 1.2 Consolidated Income Statement</b>			
<b>Amazon.Com Inc. Consolidated Statement Of Operations</b>			
(\$ millions)	<b>Year Ended December 31,</b>		
	<b>2005</b>	<b>2004</b>	<b>2003</b>
Net sales . . . . .	\$8,490	\$6,921	\$5,264
Cost of sales . . . . .	6,451	5,319	4,007
Gross profit . . . . .	2,039	1,602	1,257
Operating expenses . . . . .	1,607	1,162	987
Income from operations . . . . .	432	440	270
Interest income . . . . .	44	28	22
Interest expense . . . . .	(92)	(107)	(130)
Other income (expense), net . . . . .	44	(6)	(123)
Total non-operating expense . . . . .	(4)	(85)	(231)
Income before income taxes . . . . .	428	355	39
Provision for income taxes . . . . .	95	(233)	4
Income before change in accounting principle . . . . .	333	588	35
Cumulative effect of change in accounting principle . . . . .	26	—	—
Net income . . . . .	<u>\$ 359</u>	<u>\$ 588</u>	<u>\$ 35</u>

Exhibit 1.3 presents Amazon’s statement of cash flow. The **statement of cash flow** tells us how much cash Amazon.com generated from its core business operations or received from its shareholders and debtholders, and how much it spent to buy software and equipment. Investors are usually very interested in the statement of cash flow because it provides insight into a business beyond that provided by a balance sheet, which reflects a firm’s current financial health, or an income statement, which depicts a firm’s recent operating performance. Amazon’s statement of cash flow shows, for instance, that its operating activities generated \$733 million in cash in 2005 despite reporting net income of only \$359 million. Although Amazon’s total cash and cash equivalents decreased by \$290 million in 2005, the company’s cash holdings on the balance sheet were still in excess of \$1.0 billion! Thus, Amazon has substantial cash on hand despite reporting many years of operating losses on the income

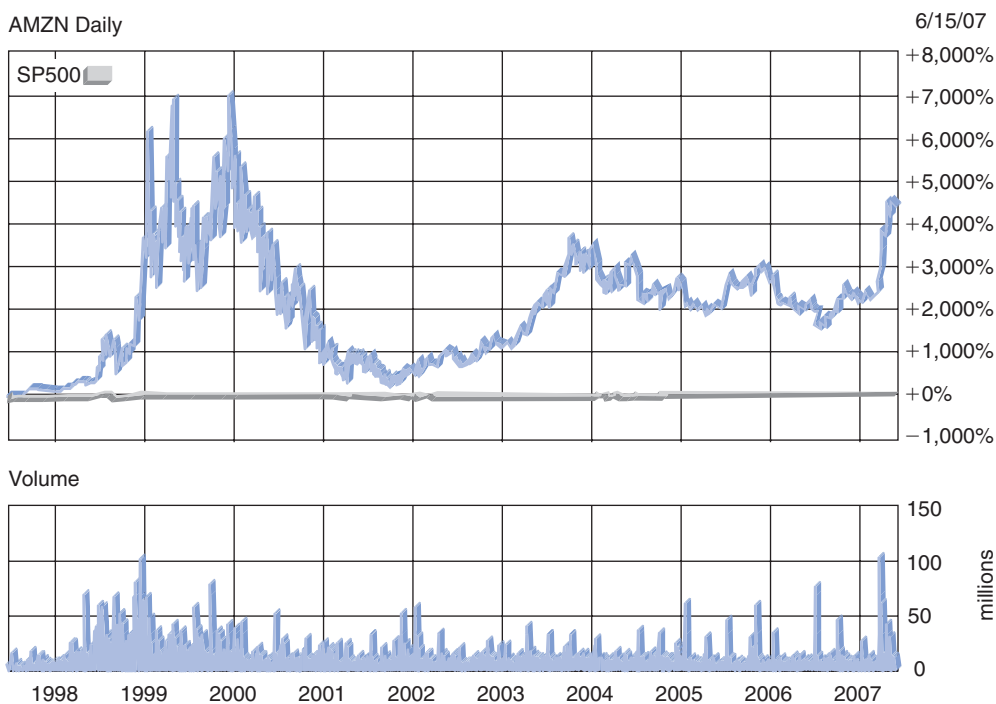
There exists substantial empirical evidence that investors who buy and sell shares use information about the past, especially financial statement information, to help make predictions about a company’s future. Financial analysts, individual investors, bankers, and many other interested parties spend considerable time and resources predicting a company’s future earnings and cash flows to help assess what a company’s share price should currently be worth. We will have more to say about how to value a company’s shares in Chapter 12; however, let it suffice for the moment that the value of a share of stock today is thought to be a function of a company’s *future earnings*.

statement and despite maintaining an accumulated shareholder deficit on the balance sheet. These seemingly conflicting financial results are possible because of Amazon's use of the accrual basis of accounting in the preparation of its income statement and its balance sheet.

<b>EXHIBIT 1.3 Consolidated Statement of Cash Flow</b>			
<b>Amazon.Com Inc.</b>			
<b>Consolidated Statement Of Cash Flow</b>			
(\$ millions)	<b>Year Ended December 31,</b>		
	<b>2005</b>	<b>2004</b>	<b>2003</b>
Cash and cash equivalents, beginning of period . . . . .	\$1,303	\$1,102	\$ 738
<b>Operating activities</b>			
Net income . . . . .	359	588	35
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation . . . . .	121	76	76
Stock-based compensation . . . . .	87	58	88
Other operating expenses (income) . . . . .	7	(8)	3
Gains on sales of marketable securities, net . . . . .	(1)	(1)	(10)
Non-cash interest expense and other . . . . .	33	(251)	144
Cumulative effect of change in accounting principle . . . . .	(26)	—	—
Changes in operating assets and liabilities:			
Inventories . . . . .	(104)	(169)	(77)
Accounts receivable, net and other current assets . . . . .	(84)	(2)	2
Accounts payable and other current liabilities . . . . .	341	275	132
Net cash provided by operating activities . . . . .	<u>733</u>	<u>566</u>	<u>393</u>
<b>Investing activities</b>			
Purchase of fixed assets . . . . .	(204)	(89)	(46)
Acquisitions, net of cash acquired . . . . .	(24)	(71)	—
Sales and maturities of marketable securities and other investments . . . . .	836	1,427	813
Purchase of marketable securities . . . . .	(1,386)	(1,584)	(536)
Proceeds from sales of subsidiary . . . . .	—	—	5
Net cash (used in) provided by investing activities . . . . .	<u>(778)</u>	<u>(317)</u>	<u>236</u>
<b>Financing activities</b>			
Proceeds from exercises of stock options and other . . . . .	66	60	163
Proceeds from long-term debt and other . . . . .	11	—	—
Repayment of long-term debt and capital lease obligations . . . . .	(270)	(157)	(495)
Net cash used in financing activities . . . . .	<u>(193)</u>	<u>(97)</u>	<u>(332)</u>
Foreign-currency effects on cash and cash equivalents . . . . .	(52)	49	67
Net increase (decrease) in cash and cash equivalents . . . . .	<u>(290)</u>	<u>201</u>	<u>364</u>
Cash and cash equivalents, end of period . . . . .	<u>\$1,013</u>	<u>\$1,303</u>	<u>\$1,102</u>

You might think that Amazon.com, which only recently began to earn an operating profit and with liabilities nearly as large as its assets, would have a share price that was close to zero. Yet Exhibit 1.4 shows that Amazon's share price soared by nearly 5,000 percent since its initial public offering while the much broader Standard and Poor's 500 Index was relatively stable over the same period. Amazon's share price at its initial public offering was \$1, but by mid 2007, its share price was over \$72 per share giving the company a market value of nearly \$30 billion. This illustrates an important distinction between a company's financial statements and its share price—the former is largely concerned with the past while the latter is concerned with the future. Financial statements are a description of the historical financial performance of a company, whereas share prices reflect investor *expectations* regarding a firm's future financial health and performance. The fact that Amazon's market value is nearly \$30 billion versus a balance sheet value of just \$246 million for shareholders' equity suggests that the stock market is optimistic that Amazon's future is going to be much brighter than its past.

## EXHIBIT 1.4 Stock Price of Amazon.com versus Standard and Poor's 500 Index



To summarize then, companies like Amazon.com who obtain capital from such external sources as debtholders and shareholders are expected to periodically provide these interested stakeholders with financial accounting information. This information includes an income statement, a balance sheet, and a statement of cash flow. A fourth statement—the statement of shareholders’ equity—is also typically provided. The relation between these four financial statements is illustrated in Exhibit 1.5.

Exhibit 1.5 illustrates a number of important points about the basic financial statements. First, a balance sheet is a description of a business’s assets, liabilities, and shareholders’ equity as of a particular point in time, usually the end of the fiscal year or the end of a quarter. The balance sheet is represented by the basic accounting equation: Total assets equal Total liabilities plus Shareholders’ equity. Second, the income statement describes a firm’s performance over the fiscal period; it is represented by the equation: Revenues minus Expenses equals Net income. Third, the net income earned by a business may be either distributed to shareholders as a dividend or retained in the business to provide financing for future operations. The **statement of shareholders’ equity** captures this decision—it reveals how the shareholders’ investment in a business grew by the amount of any net income retained in the business or declined as a consequence of any dividend distributions to shareholders or any operating losses sustained by a business. This statement also reveals whether the shareholders’ investment in a business increased by any new share sales or declined by any share repurchases. Fourth, the statement of cash flow reports the cash flow from operations, the cash flow from investing, and the cash flow from financing for a firm. The net cash flow for a fiscal period equals the change in the cash account on the balance sheet from the beginning of the period to the end of the period. Finally, note that the financial statements are not independent, but rather they are interrelated. (The interrelationship of the basic financial statements is referred to in accounting jargon as “articulation;” that is, the basic financial statements are said to articulate with one another.) As you will see in subsequent chapters, there is unique, but interrelated information in each of the basic financial statements that is of interest to lenders, managers, shareholders, and investment professionals.

Publicly listed companies in the United States are required to file a quarterly financial report (Form 10-Q) and an annual set of financial statements (Form 10-K) with the U.S. Securities and Exchange Commission. This information is also mailed or e-mailed to shareholders and debtholders.

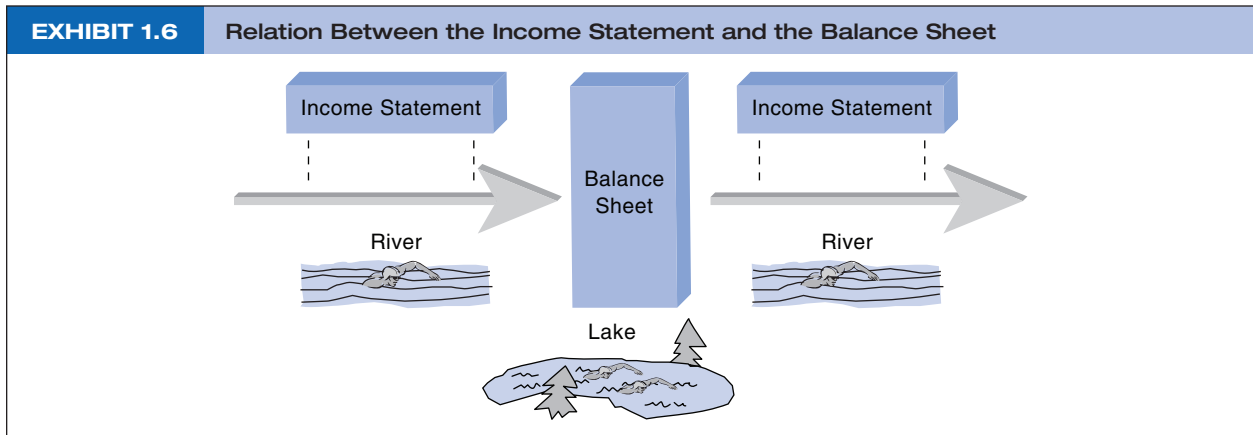
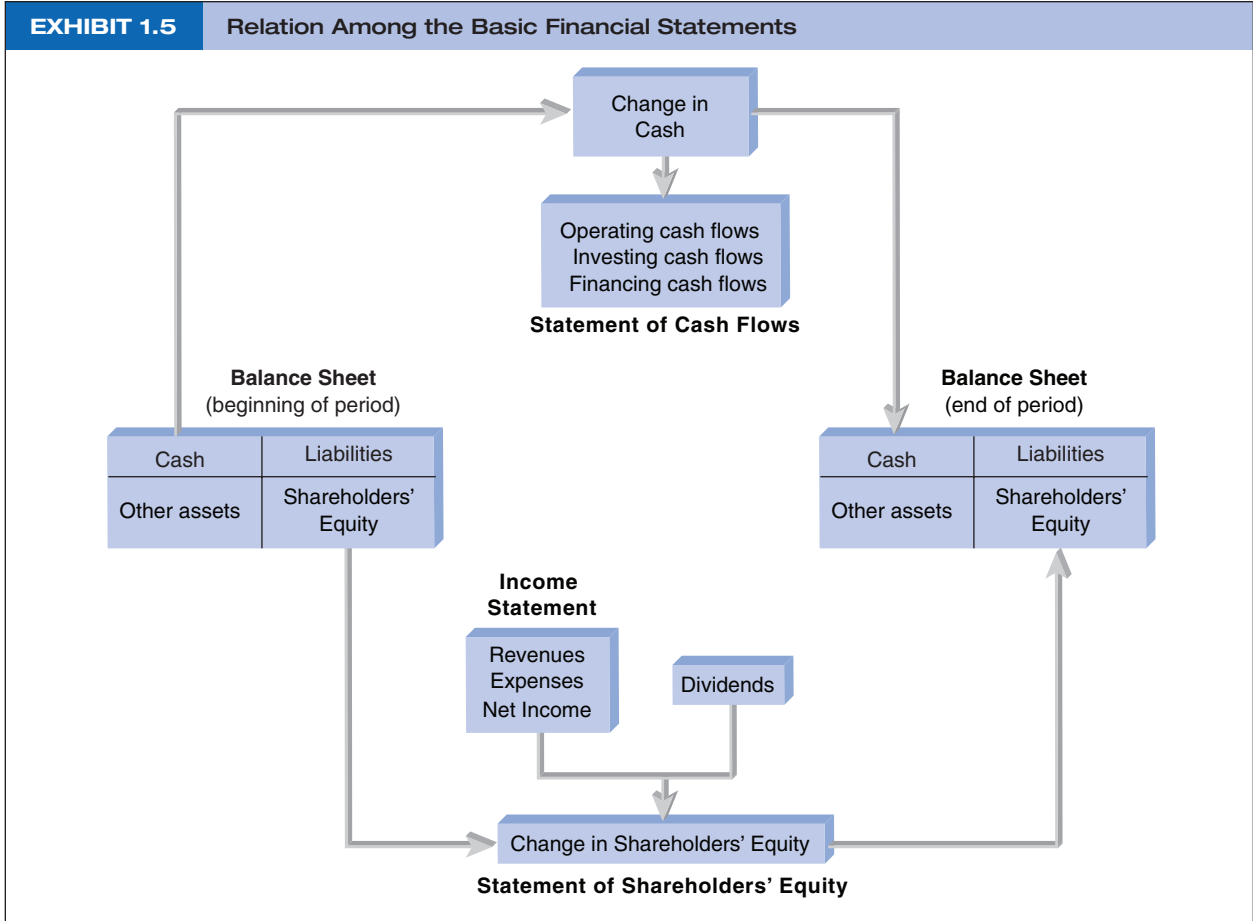
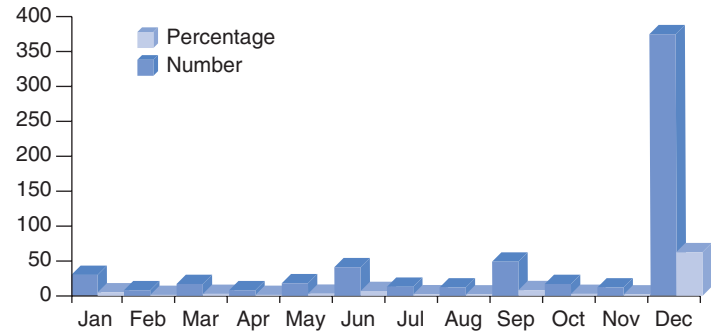


Exhibit 1.6 illustrates another example of the interrelationship of the basic financial statements, in this case between the income statement and the balance sheet, using an analogy of a river and a lake. An income statement, like a river, measures performance over a period of time—a flow concept. On the income statement, performance is measured in terms of earnings in dollars, and with a river, performance is measured in terms of the flow of water in cubic feet or meters. Balance sheets and lakes, in contrast, measure levels—a stock concept. Balance sheets measure the level of net assets and lakes measure the level of water, both at a point in time. Just as a lake’s level of

water rises and falls because of the inflow and outflow of water from a river, the level of net assets on the balance sheet rises and falls as a consequence of the operating earnings or losses generated by a business and reported on its income statement. A similar analogy could be used between the cash balance on the balance sheet and the statement of cash flow. The cash account on the balance sheet reports the level of cash currently available to a business, whereas the statement of cash flow reports the inflows and outflows of cash that occurred over the fiscal period. To repeat, the balance sheet discloses the available “stocks” of various assets, while the income statement and the statement of cash flow reveal the various “flows” of those assets.

**In Practice 1.1 Fiscal Year-End: A Glimpse of a Sample of Fortune 1000 Companies** The following table identifies the month selected as a firm’s fiscal year-end based on a survey of 600 Fortune 1000 companies. As can be seen, December was selected by nearly two-thirds of the sampled firms, although every month is represented:



Source: 2006 Accounting Trends & Techniques

## Why Accounting Information Is Important

If you have prior business experience, either working for a company or managing your own business, then you have personal experience that a working knowledge of accounting is essential to do just about any job successfully. Although business decisions may involve a careful analysis of nonfinancial factors, they almost always involve a significant consideration of accounting information. Initiating a multimillion-dollar marketing campaign, restructuring a subsidiary, acquiring another company, deciding on the sales price for a product—these are just some of the business decisions that require at least a basic knowledge of accounting. That’s why, for instance, Anne Mulcahy, Chief Executive Officer of **Xerox Corporation** had to learn about accounting and finance when she took over at Xerox in 2001. As *Fortune* magazine explained,

She knew she had to get to the bottom of Xerox’s problems quickly. She cast about for someone, anyone, who could teach her Balance Sheet 101. The guy she found, Joe Mancini Jr., director of corporate financial analysis . . . became her tour guide in deciphering the company’s \$30 billion balance sheet. He taught her about debt structure, inventory trends, and the impact of taxes and currency moves so that she could understand what would generate cash and how each of her decisions would affect the balance sheet. (*Fortune*, June 9, 2003).

Executives, such as Anne Mulcahy, are getting up to speed on accounting issues because the post-Enron corporate environment in the United States puts these individuals at risk for civil and criminal law suits.<sup>2</sup> Under the **Sarbanes-Oxley Act**, passed into law by the United States Congress in 2002, the Chief Executive Officer (CEO) and Chief Financial Officer (CFO) of each company (foreign or domestic) with public debt or equity sold in the United States must certify in writing that the information contained in the company’s publicly disseminated financial statements presents, in all material respects, the company’s financial condition and results of operations. The Sarbanes-Oxley Act provides for both financial penalties (up to \$5 million) and incarceration (up to 20 years) for executives who falsely certify their company’s financial data.

## Qualitative Attributes of Accounting Information

It is generally agreed that accounting information is valuable to analysts, creditors, investors, managers, and shareholders because it contributes to the making of important economic decisions. For instance, managers use accounting

<sup>2</sup> *The Wall Street Journal* (July 22, 2003) reported that 70 percent of the executives who took a test of basic accounting principles shortly after the passage of the Sarbanes-Oxley Act failed to earn a passing score. A survey of executives taken two years following the passage of the legislation indicates that executive understanding of accounting and finance issues has substantially improved since the legislation’s enactment (*CFO Magazine*, May 2005).

information to decide the price that they must charge for their company's products; bank credit analysts use accounting information to decide whether to extend a loan to a business; and, investors use accounting information to decide whether to invest in the shares of a company and at what price. Thus, accounting information is said to have **decision usefulness**.

There are two specific attributes which make accounting information decision useful—relevance and reliability. **Relevance** refers to the capacity of accounting information to impact a decision. Relevant information is timely and possesses feedback value, predictive value, or both. Timeliness alone does not make accounting information relevant, but a lack of timeliness can render accounting information irrelevant. By preparing periodic financial statements it is possible for companies to provide analysts, managers, and investors with timely information. **Feedback value** pertains to decisions and actions already taken. Accounting information allows financial statement users to measure those actions and evaluate their success. **Predictive value**, on the other hand, suggests that accounting information helps financial statement users form predictions about future outcomes. Investment professionals and shareholders use the historical financial statements to help predict a firm's future operating performance, and hence, its market value.

Because too much information can overwhelm financial statement users (i.e., the problem of **information overload**), the criteria of **materiality** is used worldwide to help guide just how much accounting information should be disclosed in the financial statements. Information that is immaterial is unlikely to be relevant to a decision maker. Finally, **reliability** refers to the fact that accounting information is, or should be, free from error or bias; that is, accounting information should be both objective and verifiable. Unfortunately, the attributes of relevance and reliability are often in conflict with one another, forcing trade-offs between the two. A major role of the independent auditor, to which we now turn, is to review a company's publicly available accounting information to insure that it is largely error free.

**Materiality** is a disclosure criterion used by companies to decide what, and how much, information to provide in their financial statements. Although the definition of materiality varies from firm to firm, and often between external auditors, a common threshold for the income statement is five percent of revenues. Hence, any income statement item that equals or exceeds five percent of revenues presumably merits disclosure on a firm's income statement as such items are numerically large enough to potentially influence an investor's assessment of firm performance.

## Amazon's Accounting Methods and the Role of the Independent Auditor

By now, one question that you have probably considered about Amazon's financial statements is: Could Amazon have computed its accounting results in more than one way? The answer is yes. Nearly every country around the world maintains a set of generally accepted accounting principles—or GAAP—that provides guidance to companies regarding the preferred way to measure and report their performance. The confusing aspect about GAAP, however, is its flexibility. For example, consider the depreciation on a building. Instead of having just one approach to calculate depreciation on a building, the GAAP of most countries allows for multiple methods, all of which are considered “generally accepted.” As you will see in Chapter 7, just which depreciation method is selected can have a dramatic effect on a firm's reported performance.

Consider, for instance, the \$566 million reported by Amazon.com for inventory on its 2005 balance sheet in Exhibit 1.1. Was this the amount that Amazon paid for the inventory? Or, was it what the inventory could be sold for at the end of the year? Or, was it what the same inventory would cost to replace if it were purchased at the end of 2005? Companies provide details about their accounting methods and how the various accounts are measured in the **footnotes** to their financial statements. For example, the footnotes to Amazon's 2005 financial statements report that:

Inventories, consisting of products available for sale, are accounted for using the FIFO method, and are valued at the lower of cost or market value. This valuation requires us to **make judgments** (emphasis added), based on currently available information, about the likely method of disposition, such as through sales to individual customers, returns to product vendors, or liquidations, and expected recoverable values of each disposition category. Based on this evaluation, we adjust the carrying amount of our inventories to lower of cost or market value.

There are several points to observe here. First, Amazon's financial statements are prepared by the company itself, raising the concern that the company might be tempted to boost its inventory value to make it appear that Amazon has more assets than it really does. Second, Amazon's top management and financial staff “make judgments” in deciding

what inventory values to report. But since the financial statements provided by Amazon’s management are potentially affected by these judgments, an investor might skeptically discount the reported information and reduce their estimate of what the company is presumably worth. This issue is known as the **lemons problem**.<sup>3</sup>

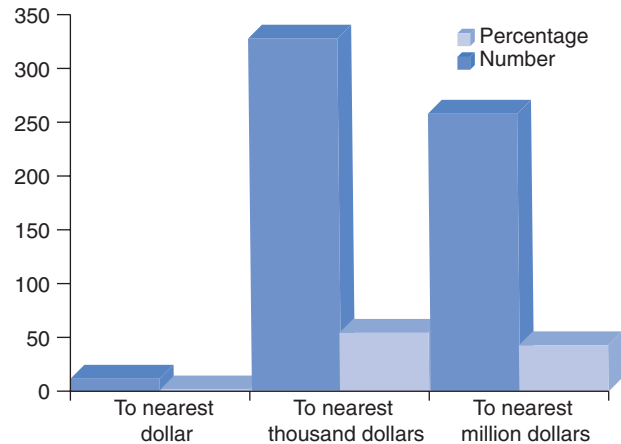
One solution to the lemons problem is for a credible, independent party to provide a “warranty” as to the quality of the product offered. For example, in the used car market, an auto dealer might promise to take a vehicle back if the buyer experiences any problems. In the “accounting market,” independent audit firms such as **Deloitte & Touche**, **Ernst & Young**, **KPMG**, and **Price-waterhouseCoopers** provide assurance of the reliability of the financial statements of the companies they audit in an **audit report** that accompanies the financial statements. Audit firms work hard to provide this assurance because errors in detecting defective financial statements can result in the loss of an audit firm’s valuable reputation, and ultimately, as illustrated by the demise of **Arthur Andersen** in 2002, the collapse of an entire audit firm. Audit firms may also bear civil and criminal penalties from lawsuits brought by shareholders, debtholders and/or governmental agencies like the U.S. Securities and Exchange Commission (SEC) if their work is found to be negligent.

The independent auditors’ report by Ernst & Young for Amazon’s financial statements is provided in Exhibit 1.7. The first paragraph of the report indicates that the scope of Ernst & Young’s audit includes Amazon’s balance sheet, income statement, statement of shareholders’ equity, statement of cash flow and other financial items. This paragraph also highlights the fact that the auditors’ responsibility is only to provide an opinion, whereas the responsibility for the preparation of the statements themselves lies with Amazon’s management. The second paragraph discloses that the audit firm’s procedures used in the review of Amazon’s financial data were in accordance with **generally accepted auditing standards** as prescribed by the Public Company Accounting Oversight Board, but that accepted auditing procedures do not consider every business transaction and instead rely only on a set of sampled transactions to form an opinion. An audit of a company like Amazon would be prohibitively expensive if every single business transaction was examined to reach an opinion.

The third paragraph provides Ernst & Young’s opinion that Amazon has prepared its financial statements in accordance with generally accepted accounting principles and that there are no important (material) errors in representing the firm’s accounting information. The fourth paragraph reports that Amazon changed its accounting methods to comply with a new generally accepted accounting standard for the expensing of employee stock options. In effect, this paragraph highlights significant changes in accounting methods that could potentially affect a user’s interpretation of the accounting information provided. The final paragraph indicates that, in addition to its audit of the financial statements, Ernst & Young performed an audit of the effectiveness of Amazon’s internal controls over its financial reporting.

Amazon’s audit opinion refers to **generally accepted accounting principles**, or GAAP. But what principles are generally accepted, who accepted them, how did they get accepted, and why were they accepted?

**In Practice 1.2 Financial Statement Rounding: A Glimpse of a Sample of Fortune 1000 Companies** The following table identifies the degree of rounding in financial statements in a survey of 600 Fortune 1000 companies. Nearly all of the sampled firms rounded their reported numbers, with rounding to the nearest thousand dollars the most commonly used choice:



Source: 2006 Accounting Trends & Techniques

<sup>3</sup> G.A. Akerlof, “The Market for Lemons: Quality Uncertainty and the Market Mechanism,” *The Quarterly Journal of Economics*, (1970). In markets where buyers are uncertain about the quality of goods offered for sale, markets may break down because buyers reduce the price that they are willing to pay, causing sellers with high-quality products to withdraw from the market. The downward price spiral continues as products of continually decreasing quality become the only products available for sale, and eventually, market breakdowns can occur.

**EXHIBIT 1.7** Independent Auditors' Report**REPORT OF ERNST & YOUNG LLP  
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Stockholders Amazon.com, Inc.

We have audited the accompanying consolidated balance sheets of Amazon.com, Inc. as of December 31, 2005 and 2004, and the related consolidated statements of operations, stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2005. Our audits also included the financial statement schedule listed in the Index as Item 15(a)(2). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Amazon.com, Inc. at December 31, 2005 and 2004, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2005, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

As discussed in Note 1 to the consolidated financial statements, the Company adopted Statement of Financial Accounting Standards No. 123 (revised 2004), Share-Based Payments, effective January 1, 2005.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of Amazon.com, Inc.'s internal control over financial reporting as of December 31, 2005, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 16, 2006 expressed an unqualified opinion thereon.

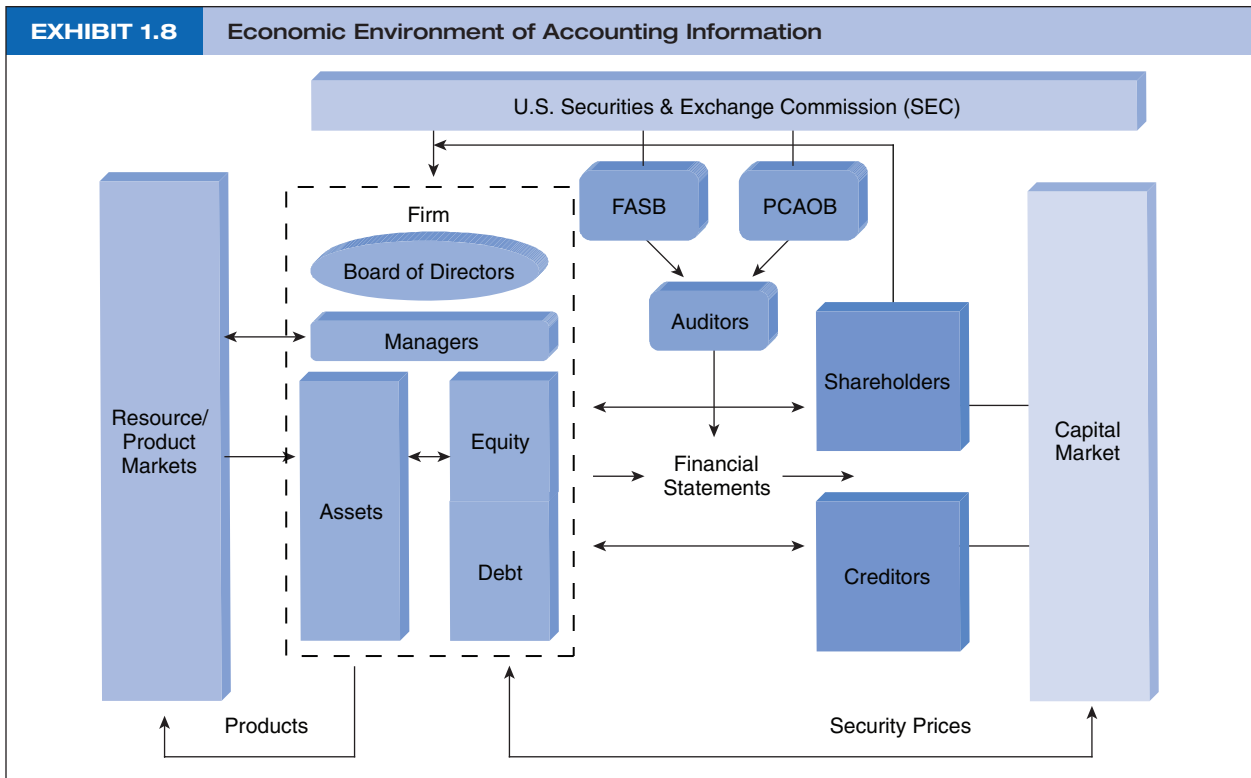
/S/ ERNST & YOUNG LLP  
Seattle, Washington  
February 16, 2006

## GENERALLY ACCEPTED ACCOUNTING PRINCIPLES

Generally accepted accounting principles arose to mutually benefit the capital market participants who use financial statements to evaluate a security's **expected return** and **risk**. The standardized conditions provided by the use of GAAP give market participants confidence that the investment decisions they make using accounting information will be the best possible decisions. In the United States, the ultimate power to set accounting standards rests with the U.S. Congress, which established the **Securities and Exchange Commission (SEC)** by giving it the power to regulate securities markets and establish and enforce the accounting standards used by companies issuing those securities. The oversight role of the SEC is depicted in Exhibit 1.8. The stock market crash of 1929 and the Great Depression of the early 1930s brought turbulent times to the U.S. financial markets. The scandalous behavior of corporate executives in the downfall of some companies and the sight of ordinary citizens who had lost all of their savings were all that the U.S. Congress needed to step in and establish the SEC.

The expected **return** on an investment refers to the expected income to be earned on the investment, whereas the **riskiness** of an investment refers to the uncertainty associated with the expected return. In general, risk and expected return are positively correlated; that is, investments with higher risk generally earn a higher rate of a return.

Similar events occurred again 70 years later. Calls for action in the aftermath of the **Enron**, **WorldCom** and **Global Crossing** debacles resulted in the passage of the Sarbanes-Oxley Act in 2002, bringing greater regulation of the accounting profession by a new organization called the **Public Company Accounting Oversight Board (PCAOB)**, which became responsible for overhauling auditing standards, inspecting accounting firms and disciplining wayward auditors. The PCAOB supplanted a system of self-regulation in which accountants at the **American Institute of Certified Public Accountants (AICPA)** oversaw their peers.



Although the SEC has the final authority over the form and content of financial statements, it has delegated the responsibility for establishing U.S. GAAP to a private sector organization called the **Financial Accounting Standards Board (FASB)**. The FASB's position under the oversight of the SEC is depicted in Exhibit 1.8. The FASB was established in 1973 after the Accounting Principles Board (APB), the predecessor to the FASB, was discontinued. The APB was abandoned after losing public confidence and support for its role in setting accounting standards. The FASB is administered by the **Financial Accounting Foundation (FAF)**, whose trustees are drawn from several different groups including the American Accounting Association, the American Institute of Certified Public Accountants, the Association for Investment Management and Research, the Financial Executives Institute, and the Securities Industry Association.

The FASB has seven full-time members who must relinquish all ties to their former employers and accept no other paid employment during their five-year terms. The FASB issues exposure drafts of its accounting standards for comment at public hearings where interested parties have the opportunity to express their opinion about the proposed rules. The passage of a proposed accounting rule, called a **Financial Accounting Standard (FAS)**, requires the support of five of the seven members. The FASB issued its first standard in 1973, but as of the time of the printing of this textbook, it had issued 158 FASs.

An example of a financial accounting standard is FAS 2, *Accounting for Research and Development Costs*, issued in 1974, requiring that "All research and development costs . . . be charged to expense when incurred." Financial statement users may disagree with the required accounting treatment of research and development (R&D) costs under FAS 2, but the knowledge that all companies are required to use the same method is likely to be valuable to analysts and investors when reviewing the financial statements of companies that incur significant R&D costs.

To the layperson, the notion that accounting standards generate heated debates is almost laughable. But in the late 1990s, the FASB issued an exposure draft that required companies to charge the cost of executive stock options against corporate net earnings. Many technology companies feared that the decline in their reported income after implementation of this proposed accounting standard would cause their company's share price to materially decline. The debate over stock option accounting even reached the floor of the U.S. Congress. Senator Joseph Lieberman of Connecticut proposed a law prohibiting the SEC from requiring that executive stock options be expensed. The FASB, under intense political pressure, ultimately backed down with the issuance of FAS 123. The final standard gave firms

a choice of deducting the cost of stock options against net income or disclosing in their footnotes what a firm's net income would have been if the options had been charged against its income.

Stock option accounting resurfaced as a controversial topic in the aftermath of the Enron, WorldCom, and Global Crossing scandals as critics attributed the collapse of these companies, at least in part, to the incentive that option-holding executives have to drive share prices higher by inflating reported corporate earnings. Numerous companies began to voluntarily charge the cost of employee stock options against earnings while other companies (such as **Microsoft**) abandoned stock options in favor of other compensation arrangements. As of 2006, FAS 123 has been revised to FAS 123R such that it is now mandatory to charge the expense of employee stock options against corporate earnings. (We will have more to say about employee stock options in Chapter 11.)

## GLOBAL PERSPECTIVE

Accounting standards have traditionally been established on a country-by-country basis. Unfortunately, this situation made the comparability and transparency of financial information across national borders difficult at best. To overcome the diversity in transnational GAAP, the **International Accounting Standards Board** was established in 1973 to “harmonize” global accounting practice. Many countries (Bulgaria, Estonia, Jamaica, New Zealand, Russia, Tanzania, and the Ukraine) have replaced their national GAAP with the **International Financial Reporting Standards (IFRS)** issued by the IASB. Beginning in 2005, the European Union (EU) required that all publicly-held companies in EU-member states and EU-applicant states use IFRS in their consolidated financial statements. Until recently, foreign companies that wanted to raise debt or equity capital in the U.S. were required to prepare their financial statements for U.S. investors using U.S. GAAP or, if their financial statements were prepared using some other form of GAAP, to present a reconciliation of their net income and shareholders' equity under the foreign GAAP and U.S. GAAP. In late 2007, however, the U.S. Securities and Exchange Commission voted to immediately allow foreign registrants to file their financial statements with the SEC (on Form F-1) using IFRS. If some other form of foreign GAAP is used, a reconciliation statement is still required. Many accounting and finance professionals hailed the SEC decision as the first step in a process that could later give U.S. companies the choice of filing their quarterly and annual financial data with the SEC using U.S. GAAP or IFRS. The decision was also seen as being a major step toward a unified set of global accounting practices that could be used worldwide.

As a concluding observation, it is helpful to understand that, in most countries, GAAP are used only to prepare the financial statements distributed to such external parties as financial analysts, shareholders, and debtholders. It is rare that GAAP are used to prepare a company's income tax statements because income tax regulations are customarily set by elected legislators or governmental agencies, not accounting professionals. The internal financial statements used by managers to run a company may also differ from those statements issued to shareholders and debtholders. In short, it is not unusual for a company to maintain three (or more) sets of financial data—for managers, for the taxation authorities, and for analysts, shareholders, and debtholders. The focus of this textbook is on those financial statements prepared using GAAP for such external constituencies as financial advisors, lenders, investors, and shareholders.

## ROLE OF FINANCIAL ACCOUNTING IN INVESTMENT DECISIONS

In very simplified terms, the lifetime profile of an individual consists of 12 to 16 years of education, 35 years of employment, 15 to 20 years of retirement, and finally death. During the first few years of employment, individuals spend most of their earnings acquiring assets like a car, a house, and taking the occasional vacation. After the basics are acquired, most individuals begin to consider the possibility that they will need substantial funds to maintain a lifestyle in retirement that they will have grown accustomed to in their working life. That means developing a retirement plan. The basic retirement plan consists of decisions about how long to work, the amount of funds to set aside over the employment period, and how to allocate those funds across different types of investments.

Individuals typically invest some of their retirement funds in the shares of companies or in a portfolio of companies to diversify their holdings. The old adage *Don't put all your eggs in one basket!* is good advice since a diversified portfolio reduces risk. Over the last decade, more and more individuals have begun simplifying the process of diversifying their equity investments by buying shares in mutual funds. By investing in a spectrum of companies, the value of mutual fund shares is not unduly influenced by the share price performance of a single company but instead by the broad movement

of stock prices in general. Stock market indices such as the Dow Jones Industrial Average (DJIA) and the Standard and Poor’s 500 Index (S&P 500) are examples of indexes of a large portfolio of stocks that mutual funds often try to mimic.

Individuals also typically put a sizeable portion of their retirement funds in tax deferred, company-sponsored pension plans. Some individuals dislike risk so they put more of their funds in government debt securities that provide interest payments and repayment of principal. Securities issued by the United States government, and the governments of most developed countries, are considered to be risk-free because of the very low probability that these entities will fail to pay the interest and principal on their debt securities.

The portfolio decisions of millions of individuals and businesses in allocating funds across different investment opportunities can be thought of as the **supply of capital**. At the same time, there are companies that have opportunities to invest in assets that far exceed their ability to generate the needed investment funds. These unfunded investment opportunities of millions of businesses can be thought of as the **demand for capital**. The **capital market**, on the other hand, can be thought of as the marketplace in which funds are traded between the suppliers of capital and those firms in search of capital. The financial statements provided by the multitude of firms seeking capital are used by the various suppliers of capital to evaluate the investment alternatives. Equilibrium prices for equity and debt securities result when millions of buyers and sellers agree to exchange capital on mutually acceptable terms.

Individual companies raise funds—that is, obtain capital—by issuing shares to shareholders and/or by borrowing from creditors such as financial institutions and bond investors. For shareholders, the return on their investment is derived from dividend payments and any appreciation (or depreciation) experienced from changes in a company’s share price. In general, the return ( $r$ ) for an equity security over a given period, such as a month or a year, is a function of its price at the end of the period ( $P_t$ ), any dividends received during the period ( $D_t$ ) and its price at the beginning of the period ( $P_{t-1}$ ). That is,

Companies “go public”—that is, sell ownership shares in the public capital market—as a means to gain access to capital to grow, to provide the original investors with “liquidity” (the ability to sell their ownership interests), and to have shares to be used to facilitate future mergers and acquisitions.

$$r_t = (P_t + D_t - P_{t-1})/P_{t-1}$$

For lenders, a return is generated by the interest payments paid by borrowers and the full and timely repayment of their initial capital investment.

In Practice 1.3 provides data on the average annual return for various types of securities sold in the United States over the 76-year period of 1926 to 2002. The In Practice also shows the standard deviation of the annual returns, a measure of the variation around the average return, which is often used as an indication of the riskiness of a given investment. According to the data, large company shares earned an average return of 12.7 percent per year compared to a return of 5.7 percent for long-term government bonds but the standard deviation of the returns for large company stocks was much higher, 20.2 percent versus 9.4 percent. Small company shares have done even better than large company shares, having earned an average annual return of 17.3 percent, but the standard deviation of 33.2 percent is also considerably higher. The high standard deviation for small company shares means that the actual return in any year will vary considerably more than for large company shares. In short, when small company share prices fall (rise), they tend to fall (rise) farther than large company share prices; and thus, small company shares are considered to be a riskier investment than large company shares.

**In Practice 1.3 Average Annual Rate of Return by Type of Security: 1926–2002**

Security Classification	Average Return	Standard Deviation
Large company stocks . . . . .	12.7%	20.2%
Small company stocks . . . . .	17.3	33.2
Long-term corporate bonds . . . . .	6.1	8.6
Long-term government bonds . . . . .	5.7	9.4
Intermediate-term government bonds . . . . .	5.5	5.7
U.S. Treasury bills . . . . .	3.9	3.2
Inflation . . . . .	3.1	4.4

Source: Ibbotson, Stocks, Bonds, Bills and Inflation

The data in In Practice 1.3 indicate that investments in shares have provided higher average annual returns than investments in government bonds. If the standard deviation of the return is a reasonable measure of risk, the data indicate that shares have higher risk than government bonds, supporting the intuitive notion that higher returns come at the price of bearing higher risk. Investors in common shares can lose all of their investment whereas an investment in government bonds is considered to be risk-free (which means, an investor will receive all interest payments when due and will receive a full return of invested capital). The data also provide support for the notion that shareholders of large firms bear more risk than corporate bondholders since the standard deviation of corporate bonds is only 8.6 percent versus 20.2 percent for stocks. Yet, shareholders are compensated for this additional risk by earning higher returns, 12.7 percent versus 6.1 percent for bondholders.

What is the role of accounting information in the capital markets? For investors who follow an active investment strategy, one very important role for financial statement information is to provide better assessments of the expected return and risk of individual securities so that the investor can make the best possible investment decisions. This is called the **information role** of financial statements. For passive investors who follow a buy-and-hold strategy, accounting information may have only limited value since these investors implicitly operate under the premise that security prices reflect all information that is publicly available. Passive investors (such as, individuals who invest in index funds) believe that it is not possible to earn excess returns above the general market return because the capital markets are efficient. A market in which security prices correctly reflect all publicly available information (for example, the information contained in financial statements) is referred to as an **efficient market**.

Debt holders, on the other hand, use accounting information to assess financial risk—that is, the risk that a firm may not pay its debt service charges and principal payments on a timely basis. When debt holders determine that financial risk is high, they will demand commensurately higher returns (by charging higher interest rates) to compensate them for the additional risk assumed by lending to such a firm.

## CHANGING ECONOMIC LANDSCAPE

Enron, WorldCom and Global Crossing are now household names synonymous with the most egregious corporate wrongdoing in the United States in the last 70 years. These financial scandals brought about significant changes in U.S. corporate regulation. To demonstrate that it was responsive to the public's demand for action, numerous corporate executives and employees from Arthur Andersen, auditor for all three failed companies, were questioned on the floor of the U.S. Congress. In response to their findings, the U.S. Congress quickly enacted the Sarbanes-Oxley Act, establishing the Public Company Accounting Oversight Board to regulate the accounting profession.

Some observers believe, however, that the enacted changes didn't go to the root cause of the financial scandals, the seeds of which were sown in regulation changes made 30 years ago. They cite changes made in the 1970s to increase competition in audit markets by permitting accountants to advertise and solicit clients and to changes in the law which permitted auditors to be sued more easily for financial statement errors as causes of the 'race to the bottom.'<sup>4</sup> With decreasing fees from competition and increased legal costs, accounting firms introduced changes in auditing methodologies to reduce audit costs and lobbied for more precise standards to better defend themselves in lawsuits. Accounting firms also diversified into corporate consulting to reduce their dependence on auditing fees, the less profitable side of the business, and, by rewarding partners on the basis of client retention and new client acquisition, encouraged a compliant attitude to financial reporting disagreements. Observers also cite regulatory changes that abolished fixed brokerage commissions as another root-cause of the scandals. With the profitability of the securities business reduced, the research side of the securities industry focused more on pleasing clients that brought in underwriting and investment-banking business by releasing favorable earnings forecasts and assessments. Thus, analysts lost their objectivity and failed to perform hard-nosed fundamental analysis that previously provided value to investors.<sup>5</sup>

Over the years, generally accepted accounting standards have become increasingly complicated, often requiring detailed manuals to interpret the rules and guide companies in their implementation. For example, FAS 2 occupied only 19 pages when it was issued in 1974, while FAS 133, a complicated standard on derivatives issued in 1998, is 213 pages in length. The Sarbanes-Oxley Act mandated, among other things, an investigation of the possibility of

<sup>4</sup> P.M. Healy and K.G. Palepu, "How the Quest for Efficiency Corroded the Market," *Harvard Business Review* (July 2003).

<sup>5</sup> *ibid.*

using “principles” rather than increasingly detailed “rules” as a basis for U.S. accounting standards. Whether principles become the guiding influence in setting future accounting standards remains to be seen.

### ETHICS PERSPECTIVE

There is an intense debate within the U.S. accounting standard-setting community as to whether accounting principles should be rules-based, as is the case with U.S. GAAP, or principles-based, as is the standard with international GAAP. The fundamental difference between these approaches is that principles-based accounting provides a conceptual basis for accountants to follow instead of a list of detailed rules. The landmark Sarbanes-Oxley legislation called for the U.S. Securities and Exchange Commission to study the adoption of principles-based standards for U.S. GAAP. The subsequent SEC staff report recommended that U.S. GAAP move toward a principles-based approach. In April 2003, the auditing firm of PricewaterhouseCoopers placed a full-page advertisement in the *Wall Street Journal*. Joining the debate over whether GAAP should be more principles versus rules-based, the audit firm wrote: “Rules-based systems encourage creativity (and not the good kind) in financial reporting. They allow some to stretch the limits of what is permissible under the law, even though it may not be ethically or morally acceptable. A principles-based system requires companies to report, and auditors to audit, the substance or business purpose of transactions, not merely whether they can qualify as acceptable under incredibly complex or overly technical rules.” The accounting firm advertisement further stated: “A rules-based system allows managers to ignore the substance and, instead ask, ‘Where in the rules does it say I can’t do this?’”

## SEVEN ACCOUNTING MYTHS

It is rare that someone starting an introductory course in financial accounting begins the experience with a blank mental slate. Rather, most individuals bring with them a set of expectations. Almost everyone has had experience with some aspect of accounting, from balancing a checkbook or filling out a credit card application, to reading a set of financial statements. Through these experiences, and from discussions with others, a certain accounting mystery develops along with the formation of certain myths and misconceptions. It is the goal of this textbook to take you on a journey through the world of financial accounting, and along the way, attempt to solve many of the mysteries and debunk many of the myths and misconceptions.

The first two myths about accounting relate to the underlying rules that govern how accounting numbers are calculated and reported. This set of rules is known as **generally accepted accounting principles**, or GAAP. Perhaps the most widely held myth that we explore is the belief that:

1. Generally accepted accounting principles are a set of rigid rules that, if followed correctly, will lead to a unique, “correct” representation of the financial performance and health of a firm.

Closely related to myth number one is the belief that:

2. GAAP is created from a comprehensive analytical process, which is free from political influence.

The following four myths relate to the basic financial statements which are the output of the accounting process:

3. The basic financial statements, consisting of a balance sheet, an income statement, a statement of shareholders’ equity, and a statement of cash flow, reflect a complete, accurate, and timely portrayal of the financial performance and well-being of a firm.
4. All of a firm’s identifiable assets and liabilities appear on the balance sheet, and the difference between a firm’s assets and its liabilities represents the value of the firm.
5. Each of the financial statements is independent, with each reflecting a different aspect of a firm’s performance and financial health.
6. Cash flow is ultimately what matters to a firm and its investors; therefore, it is not really necessary to worry about the definition of earnings used in the preparation of the income statement. Rather, one need only consider the sources and uses of cash as reflected on a firm’s statement of cash flow.

Lastly, and what we feel is perhaps the biggest myth of all is:

7. A knowledge of accounting is only necessary for someone who wants to be an accountant.

Some of the terminology from the above list of myths may be unfamiliar to you at this point. One thing that is certainly not a myth is that a major challenge associated with learning accounting is to simply understand all of the jargon. Perhaps we should have added an additional myth: Accounting is hard! While this is certainly a subjective assessment that each student will make, we believe that the approach followed in this textbook will go a long way to turning this challenge into a myth as well.

While most individuals reading this book do not plan to pursue a career in accounting, we believe that it is critical for anyone planning a career in management to understand the fundamentals of accounting, for it is the language of business. To use an analogy from sports, you don't have to be a great baseball player to enjoy the game of baseball. Stated alternatively, it is not critical to be trained as an accountant but you must understand how the game is played and scored.

Accounting, as noted above, has its own language. Two of the words that seem to strike fear into new accounting students are “debit” and “credit.” Debits and credits represent a mechanism for accountants to record business transactions, in other words to keep score of the game. For those executives planning to continue their accounting studies to a more advanced level, we have included details on using debits and credits in the appendixes to many of the chapters. Sometimes, however, it is difficult to see the forest through all of the trees. Therefore, we utilize a spreadsheet approach to recording transactions within the chapters to explain the accounting process in a more straightforward, intuitive manner.

## EXECUTIVE SUMMARY

In this chapter we considered the basic financial statements of Amazon.com, an online retailer of products. We examined how the financial statements can be used by debtholders and shareholders to predict the expected return and risk of individual securities. We also considered the role of the FASB, the IASB, and the SEC in setting accounting standards and the role of auditors in monitoring compliance with those standards.

As a validation of your understanding of the content of this chapter, you should now be able to:

- Identify the basic financial statements—the income statement, the balance sheet, the statement of shareholders' equity, and the statement of cash flow.
- Understand that companies acquire capital from investors who purchase the debt and equity securities issued by such firms to obtain an expected return commensurate with the risk the investors assume.
- Understand the role of accounting standards in facilitating a properly functioning capital market.
- Understand the conflicts of interest that may arise between the executives, shareholders, and debtholders of a corporation, and the costs associated with the divergent incentives that may arise when the ownership and management of a company are separated (see appendix).

In Chapter 2, we consider how the basic financial statements are developed from accounting events.

## KEY CONCEPTS AND TERMS

Accounting equation, 4	Consolidated income statement, 6	Feedback value, 11
Accounts payable, 4	Contracting role, 21	Financial accounting, 3
Accounts receivable, 4	Corporate charter, 20	Financial Accounting Foundation, 14
Accrual basis of accounting, 4	Corporate governance, 20	Financial Accounting Standard, 14
Agency costs, 21	Corporations, 20	Financial Accounting Standards Board, 14
American Institute of Certified Public Accountants, 13	Covenants, 22	Fiscal period, 21
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Balance sheet, 4	Demand for capital, 16	Generally accepted accounting principles, 12, 18
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## APPENDIX 1A: Agency Costs and the Separation of Management and Capital Providers

Today, businesses are often organized as **corporations** owned by shareholders under the laws of the state or province in which a company is incorporated. State incorporation laws require a company to have a **corporate charter**—a set of by-laws governing the rights and responsibilities of the board of directors to a firm's shareholders and covering such topics as annual meetings, the election of directors, the type and quantity of shares to be sold, and shareholder voting rights. Shareholders usually delegate the task of running a business on their behalf to a board of directors who are elected by shareholders at the annual shareholders' meeting. The board of directors, on the other hand, has oversight responsibility for the company but the day-to-day management of the firm is directed by the chief executive officer (CEO) who appoints the senior management team including the president, the chief operating officer (COO) and the chief financial officer (CFO). With the assistance of top management, the board of directors recommends a firm's independent auditors to shareholders who vote on audit firm appointment (and reappointment) at the annual meeting. These arrangements are collectively referred to as a company's **corporate governance**, a topic much debated since the collapse of **Enron**, **WorldCom**, **Global Crossing**, and a host of other trouble-ridden firms.

A noteworthy characteristic of the corporate form of organization is the principle of **limited liability**, a feature that limits the liability of a business's shareholders for the debts incurred by the business. Thus, if a corporation's assets are insufficient to pay off a business's liabilities when they mature, the lenders are unable to satisfy their claims against the company by attempting to gain control of the personal assets of the company's shareholders.

### BUSINESS PERSPECTIVE

The corporate form of business is one of the two primary organizational forms of companies. The other form is a partnership, also known as a sole proprietorship when there is only one partner. There are several key differences between these alternative organizational forms, the principal ones being limited liability, tax status, and ease of ownership transferability. The primary advantage of the corporate form of business is the limited liability provision in which shareholders are only liable for the debts of a business to the extent of their investment in the business. Partners in a partnership, in contrast, face joint and severable liability wherein each partner is liable for not only their own acts, but also for the acts of the other partners. In addition, a partner's liability is not limited to just his/her partnership investment, but liability extends to their personal assets as well. The limited liability attribute of corporations is essential to their ability to raise large amounts of capital because shareholders can invest in a corporation without risking their entire personal wealth. This attribute also facilitates the transferability of ownership interests in a corporation relative to a partnership.

Corporations are not without negatives, however, and the principal one is tax status. Corporations face a corporate income tax on their earnings, which may lead to a situation of "double taxation" when any previously taxed corporate income is taxed again to the shareholders when they receive a dividend distribution. Partnerships are not taxed separately; instead, the partnership income is taxed only once at the individual-partner level. In addition to these two primary organizational forms, several hybrid forms exist that have attributes of both corporations and partnerships. These hybrid forms include limited partnerships, limited liability partnerships, sub-chapter S corporations, and limited liability corporations.

The development of the concept of limited liability was significant because it enabled the ownership of a firm to be separated from the day-to-day management of the firm; and, consequently, permitted the segmentation of risk bearing by shareholders from the operational control of a business by its team of managers. Unfortunately, the separation of the ownership of a business from the management of a business often leads to a conflict of interest between the preferences of shareholders for greater wealth and

the preferences of managers for increased leisure and on-the-job “perks” such as a company-financed jet. The separation of ownership and the provision of debt financing can also potentially create a conflict of interest between shareholders with preferences for higher-valued shares and debtholders with preferences for timely debt servicing and loan repayment. The costs associated with these divergent self-interests are referred to as **agency costs**.

Since conflicts of interest are likely to arise among the various constituencies that comprise a corporation (i.e., shareholders, managers, and creditors), the agency costs associated with these conflicts must be born by the company’s shareholders by virtue of their ownership of the firm. Consequently, it is normally in the shareholders’ interest to engage in various “monitoring” and “contracting” activities to help control or reduce these conflicts. For example, financial statement information is often used in employment contracts between managers and shareholders to measure, monitor, and control managerial behavior. This is referred to as the **contracting role** of accounting information.

## APPENDIX 1B: Generally Accepted Accounting Principles: Purpose, Concepts, and Elements

Generally accepted accounting principles (GAAP) have as their purpose the measurement of economic activity by a business enterprise and the reporting of this activity in the form of financial statements, along with disclosures to aid users in the interpretation of the financial statements. The primary promulgator of U.S. GAAP is the Financial Accounting Standards Board (FASB). The FASB has issued a series of pronouncements called Statements of Financial Accounting Concepts (SFAC) that serve to create the foundation for their Statements of Financial Accounting Standards (SFAS).

The first SFAC identifies the three principal objectives of financial reporting: (1) the creation of information useful in making economic decisions; (2) providing information to aid in predicting cash flows; and (3) providing relevant information regarding a business’s economic resources. These objectives facilitate the measurement and reporting of business activity during a **fiscal period** by an **economic entity** that is assumed to be a **going concern**. The economic entity assumption implies that the business activity to be measured can be identified with a particular unit of accountability and requires that the activity of the entity be assessed separately from the activities of its owners. It is further assumed that the entity will remain a going concern for the foreseeable future; in other words, that the enterprise will have a long life. Because the entity will exist for an extended period of time, it is necessary to segment its operational life into reporting periods, known as fiscal periods, so as to provide interested parties with timely, relevant information about its various activities. Public corporations that report to the Securities and Exchange Commission (SEC) file quarterly financial statements, called a 10-Q, and annual financial statements, called a 10-K. An additional **monetary unit** assumption implies that only those items that can be expressed in terms of a monetary unit, the U.S. dollar in the United States, are included in the financial statements. Because inflation is relatively mild in the United States, price-level changes are ignored and the U.S. dollar is assumed to remain stable over time.

The second FASB concept statement discusses the qualities that make accounting information useful. The primary qualities are **relevance** and **reliability**. For information to be relevant, it should be timely and should either assist in predicting future cash flows or provide feedback value regarding past events. For information to be reliable, it should be verifiable and faithfully represent the observed economic activity. Finally, information should also be comparable, consistent, and understandable. **Comparability** refers to comparisons made between different business entities, whereas consistency refers to comparisons made across time for a particular business entity.

The above qualities are subject to a **materiality** constraint. The materiality constraint is not explicitly defined and consequently requires some judgment in its application. In general, only economic events that are significant enough to affect a user’s decisions are required to be accounted for in a manner consistent with GAAP.

Not all of these qualities are compatible, however; for example, there is often a conflict between relevance and reliability. When trade-offs between the qualities are necessary, GAAP tends to place more weight on data reliability and the role of **conservatism**. Conservatism is a reaction to the uncertainty inherent in many financial events. Conservatism dictates that, when in doubt, the financial statements should understate assets, overstate liabilities, delay the recognition of revenues, and accelerate the recognition of expenses.

The third concept statement defines ten elements that form the basic building blocks of the financial statements. The first three elements relate to the balance sheet, which portrays an entity’s net resources as of a particular point in time:

1. **Assets**—Probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events.
2. **Liabilities**—Probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions.
3. **Equity** (net assets)—The residual interest in the assets that remain after deducting its liabilities.

The next five elements relate to the income statement, which measures an entity’s performance over a given period of time:

4. **Revenues**—Inflows or other enhancements of assets of an entity or settlement of its liabilities (or a combination of both) from delivering or producing goods, rendering services, or carrying out other activities that constitute the entities' ongoing major and central purpose.
5. **Expenses**—Outflows or other using up of assets or incurrences of liabilities (or a combination of both) from delivering or producing goods, rendering services, or carrying out other activities that constitute the entities' ongoing major and central purpose.
6. **Gains**—Increases in equity (net assets) from peripheral or incidental transactions of an entity and from all other transactions and other events and circumstances affecting the entity except those that result from revenues or investments by owners.
7. **Losses**—decreases in equity (net assets) from peripheral or incidental transactions of an entity and from all other transactions and other events and circumstances affecting the entity except those that result from revenues or investments by owners.
8. **Comprehensive income**—The change in equity of a business enterprise during a period from transactions and other events and circumstances from sources other than investments by owners or distribution to owners.

The final two elements relate to transfers between a business enterprise and its owners:

9. **Investments by owners**—Increases in equity of a particular business enterprise resulting from transfers to it for the purpose of increasing ownership interests.
10. **Distributions to owners**—Decreases in the equity of a particular business enterprise resulting from transferring assets, rendering services, or incurring liabilities to owners.

## Conflicts Between Managers and Shareholders

Since shareholders must bear the agency costs associated with the conflicting self-interests that result from the separation of management and ownership of a corporation, they are incentivized to develop contracts with corporate management that direct or control managerial behavior. For example, the shareholders of a business often develop and institute incentive contracts with a business's executives that tie an executive's compensation to the company's share price, via stock options or a restricted stock plan, or to the company's accounting earnings which have been shown to be correlated with a company's share price. Thus, incentive contracts work to align the financial interests of managers with those of a company's shareholders, thereby encouraging the managers to simultaneously work to maximize their own wealth as well as that of the shareholders. Amazon.com, for example, reported that the company granted bonus opportunities to various executive officers payable upon the achievement of *certain performance goals*. Undoubtedly, some of the performance goals were measured in terms of such accounting numbers as sales, cash flow or profits. By linking executive compensation to measurable accounting variables, management is more likely to take appropriate actions to see that the performance goals are met or exceeded, thereby increasing the wealth of the shareholders, and that of their own.

## Conflicts Between Debtholders and Shareholders

Agency costs can also arise from conflicts between debtholders and shareholders. An extreme example of such behavior would occur in the case of a firm whose shareholders borrow a large amount of money from debtholders only to pay the borrowed funds out as a dividend. In effect, the shareholders redistribute the borrowed wealth from the debtholders to themselves, potentially leaving the debtholders with a worthless corporate shell and no resources to repay the loan. By virtue of their ownership of the firm, shareholders bear the agency costs of this conflict via higher interest rates because debtholders can anticipate these potentially unconstrained actions by shareholders. A solution to this conflict is for shareholders to agree to be bound by a legally enforceable loan contract containing provisions that restrict the shareholders' behavior. These contract provisions are called **debt covenants**, and may, for example, restrict the amount of dividends that may be paid.

To illustrate, the following disclosure relates to the long-term debt that appears on Amazon's balance sheet:

When a company borrows funds, the terms of the loan agreement are formalized in a legal contract. Typically, these loan contracts contain provisions, called **covenants**, which restrict the actions of the borrower. For example, a common debt covenant limits the amount of dividends that can be paid to shareholders. Covenants are used by lenders to reduce financial risk and increase the likelihood that borrowers pay their interest and principal repayments in a timely manner.

The indenture governing the 4.75% Convertible Subordinated Notes contains certain affirmative covenants for us, including making principal and interest payments when due, maintaining our corporate existence and properties, and paying taxes and other claims in a timely manner. We were in compliance with these covenants through December 31, 2005.

Another example of a corporate action creating agency costs is the issuance of new debt with repayment priority over existing debt. In this situation, there is a redistribution of wealth from the initial debtholders to the shareholders. A solution to this conflict

is for the shareholders to agree to a legally enforceable contract that limits the firm's ability to issue new debt with priority over the old debt. For example, Amazon's borrowing agreements have covenants that restrict the company's ability to borrow by requiring that the ratio of aggregate indebtedness divided by pre-tax operating earnings be less than 6 to 1. Under the terms of this covenant, Amazon is required to periodically provide debtholders with audited financial statements from which measures of aggregate indebtedness and pre-tax operating earnings can be taken and used to evaluate the firm's compliance with the covenant. How does this help Amazon? By agreeing to the restrictions imposed by the covenant, Amazon.com is able to obtain a loan that it might not otherwise gain access to.

## DISCUSSION QUESTIONS

- Q1.1 Financial Statement Data Users.** Financial statement data is utilized by a variety of user-groups to include a company's board of directors, bondholders, corporate employees and executives, customers, investment advisors, labor unions, loan officers and credit analysts, shareholders and suppliers. For each user-group, discuss how financial statement data might be used in their decision-making process.
- Q1.2 Accounting Standards.** Discuss why accounting standards (generally accepted accounting principles) are important to investors and to a properly functioning, efficient capital market. How do accounting standards help capital markets be (or become) "efficient"?
- Q1.3 Corporate Governance.** Discuss what "corporate governance" is and why it is important to shareholders.
- Q1.4 Risk, Return, and Accounting Information.** Discuss the relationship between investment risk and the expected rate of return on an investment. Explain why accounting information is useful in evaluating the risk/return trade-off inherent in all investments.
- Q1.5 Global GAAP.** Discuss the major impediments to the acceptance of a global set of generally accepted accounting principles. Prepare a list of those key impediments. Of the items on your list, which do you think will be the most difficult to overcome? Why? Why is having a global set of GAAP desirable?
- Q1.6 Asymmetric U.S. GAAP.** Under U.S. GAAP, long-lived assets such as real estate are carried on the balance sheet at the original purchase price of the asset. In the event that the value of a real estate asset becomes "impaired"—that is, the current value of the real estate falls below its original purchase price and is unlikely to recover the lost value in the foreseeable future—the asset's book value is written down to the lower current value and a loss is recorded on the firm's income statement. Under no circumstances, however, can a firm write up the value of its real estate assets in the event that current value exceeds original purchase price. Discuss whether U.S. GAAP should be changed to allow a symmetric treatment of asset value increases and decreases? What are the implications of this asymmetry in the accounting treatment of assets (like real estate) for current U.S. financial statement users?
- Q1.7 Human Assets.** The balance sheet allegedly reports all of the assets of a business. But one of the most important assets of any business is its employees, and this asset is omitted from the balance sheet of every company in every country in the world. Thus, it can be concluded that the balance sheet of any company understates the true value of its assets. Discuss what types of companies and which industries are most likely to be impacted by this situation. Prepare a list of the companies that you feel are most adversely affected by this accounting practice. Why did you select these companies?
- Q1.8 Key Performance Indicators: Amazon.com.** Based upon your reading of the chapter, specifically a review of the financial statements of [Amazon.com](https://www.amazon.com), identify five key indicators of performance (KPIs) for Amazon.com. Explain why you selected the five KPIs. Identify five KPIs that are not present in Amazon's financial statements but that you believe are important to consider when making a decision about whether to invest in Amazon.com.
- Q1.9 Audit Reports.** Review [Amazon.com](https://www.amazon.com)'s audit report in Exhibit 1.7 and discuss what the report tells you about Amazon's financial statements. Is there anything in the audit report that causes you concern? Why or why not? According to the independent auditors, who has ultimate responsibility for the preparation of and fairness of the company's financial statements?
- Q1.10 Accounting Assumptions and Concepts.** Discuss the following accounting assumptions and concepts:
- Accrual basis of accounting
  - Cash basis of accounting
  - Going concern assumption
  - Materiality concept
  - Information role of accounting
  - Contracting role of accounting

Why are the assumptions and concepts important?

**Q1.11 The Basic Financial Statements.** Describe or define the four basic financial statements:

- Income statement
- Balance sheet
- Statement of shareholders' equity
- Statement of cash flow

Discuss how the four statements are interconnected.

**Q1.12 Debt Covenants.** **American Airlines** has outstanding lines of credit and various loan agreements with a number of financial institutions. Under the terms of these debt contracts, American is required to (a) maintain a minimum balance of \$1.25 billion of unrestricted cash and short-term investments, (b) maintain a ratio of operating cash flow to interest expense of at least 1.3 to 1.0, and (c) restrict any dividend payments to American shareholders to not more than 25 percent of net income. Discuss why American's lenders would impose these financial and operating restrictions on the airline. Discuss why American would agree to the restrictions.

**Q1.13 Debt Covenants.** **Titanium Metals Corporation (TIMET)** is one of the world's leading producers of titanium products, a key component used in the manufacture of commercial and military aircraft. In TIMET's 2005 annual report, the company disclosed the following:

Under the terms of the company's U.S. asset-based revolving credit agreement, borrowings are limited to the lesser of \$105 million or a formula-determined borrowing-base . . . . Borrowings are collateralized by substantially all of the company's U.S. assets.

The U.S. credit agreement prohibits . . . the payment of dividends on the company's common stock . . . , limits additional indebtedness, requires compliance with certain financial covenants including a minimum net worth covenant and a fixed charge ratio covenant . . . .

Discuss why TIMET's U.S. lenders would impose such restrictions on the company. Discuss why TIMET would agree to such restrictions.

**Q1.14 (Appendix 1A) Separation of Ownership and Management.** Describe a conflict that may arise between the shareholders of a company and the managers of the company. Discuss what the shareholders might do to overcome that conflict and explain why you feel that your solution to the conflict would be effective.

**Q1.15 (Appendix 1A) Conflicts between Shareholders and Debtholders.** Describe a conflict that may arise between the shareholders of a company and the debtholders of the company. Discuss what the debtholders might do to resolve that conflict and explain why you feel that your solution to the conflict would be effective.

**Q1.16 The Going Concern Assumption.** **Ernst & Young, LLP** is the independent public accountant for **AMR Corporation**, the parent company of **American Airlines** and **American Eagle**. In 2002, Ernst & Young gave AMR a "clean opinion," indicating that its financial statements were fairly presented. In the 2002 auditors' report for AMR, however, Ernst & Young notes:

The accompanying financial statements have been prepared assuming the Company will continue as a going concern . . . the Company's recent history of significant losses, negative cash flow from operations, uncertainty regarding the Company's ability to reduce its operating costs to offset the declines in its revenues, the potential failure of the company to satisfy the liquidity requirements in certain of its credit agreements, raise substantial doubt about the Company's ability to continue as a going concern.

Discuss why Ernst & Young would issue a "clean opinion" on the financial statements of AMR Corporation given its many doubts about the firm's ability to "continue as a going concern."

**Q1.17 Is the Sarbanes-Oxley Act Effective?** In 2006, **BusinessWeek** magazine (April 17, 2006) carried an opinion piece which questioned the effectiveness of the Sarbanes-Oxley Act of 2002. According to the author, Professor D. Moore, "key business failures that cost investors and employees tens of billions of dollars are all but sure to happen again. The calamitous scandals of Enron and many other companies were possible only because of breaches in a bulwark of our free market system—auditor independence." Professor Moore states that the Sarbanes-Oxley Act will be ineffective in preventing future corporate scandals because the act fails to address the real underlying problem, namely the lack of auditor objectivity. Do you agree with Professor Moore? If so, why? If not, why not?

**Q1.18 Should the Sarbanes-Oxley Act Be Revised?** In late 2006, **BusinessWeek** magazine (December 18, 2006) carried a report on the aftermath of the passage of the Sarbanes-Oxley Act. According to the piece, "the intentions were good, but in the two years since its passing, the Sarbanes-Oxley Act has collapsed into a glob of regulatory confusion costing U.S. businesses billions of dollars a year in compliance costs." The article further noted that "(T)he act never got the vetting it deserved because of the race to approve it after the **Enron** and **WorldCom** meltdowns. . ." Nevertheless, one direct consequence of the Act was that a record number of U.S.-listed firms—1,300 companies, or over 8 percent of

the total—restated their earnings in 2005. Discuss whether the criticisms of the Act noted in the *BusinessWeek* article are justified given the large number of firms that found it necessary to restate their reported earnings following the passage of the Act.

- Q1.19 (Ethics Perspective) Rules-based Versus Principles-based Accounting.** Do you believe that rules-based accounting leads to unethical managerial behavior? If so, why? Do you think that rules-based GAAP allows businesses to design their financial reporting so as to stay within the letter of the accounting standards even if they clearly violate the spirit of the standards?
- Q1.20 (Appendix 1B)** Financial statements must contain objective and verifiable data if they are to be useful. Yet, many estimates and subjective assumptions are required to facilitate the preparation of these reports. Please reconcile these apparent inconsistencies in the preparation of the basic financial statements.
- Q1.21 (Appendix 1B)** Much of the information contained in the balance sheet is reported on a historical cost basis. This means that such assets as land are reported at the amount that was originally paid for the item when purchased. Alternative possible reporting methods include current value, what a similar item would currently cost to acquire, and liquidation value, the amount an entity would receive if it was forced to sell the item. Discuss how the concepts of relevance, reliability, and going concern influence the choice of historical cost as a reporting method.

✔ indicates that check figures are available on the book's Website.

## EXERCISES

- E1.22 Account Identification.** Presented below is a list of financial statement accounts. Using the letter A for assets, L for liabilities, SE for shareholders' equity, R for revenue, E for expenses, and NA for not applicable, identify (a) whether the listed accounts appear on the balance sheet (B/S) or income statement (I/S), and if so, (b) the nature of the account (A, L, SE, R, E, or NA).

- |                        |   |
|------------------------|---|
| 1. Accounts receivable | 9. Depreciation expense                 |
| 2. Common stock        | 10. Accounts payable                    |
| 3. Sales               | 11. Cash flow from operating activities |
| 4. Land                | 12. Cash                                |
| 5. Retained earnings   | 13. Cost of goods sold                  |
| 6. Notes payable       | 14. Equipment                           |
| 7. Dividends paid      | 15. Selling expense                     |
| 8. Inventory           | 16. Interest income                     |

- E1.23 The Balance Sheet Equation.** The Arcadia Company reported the following financial results during its first two years of operations:

Year End	Assets	=	Liabilities	+	Shareholders' Equity
Year 1 . . .	\$80,000	=	\$60,000	+	\$20,000
Year 2 . . .	70,000	=	40,000	+	30,000

Assuming that no dividends were declared and that no additional capital was invested in Year 2, determine Arcadia's net income (or loss) for Year 2.

- ✔ **E1.24 The Balance Sheet Equation.** The Claremont Company reported the following financial results during its first two years of operations.

Year End	Assets	=	Liabilities	+	Shareholders' Equity
Year 1 . . .	\$110,000	=	\$60,000	+	\$50,000
Year 2 . . .	125,000	=	80,000	+	45,000

Assuming that no dividends were declared and that no additional capital was invested in Year 2, determine the net income (loss) for the Claremont Company in Year 2.

- ✔ **E1.25 Key Relations: Revenues, Expenses, Dividends, and Retained Earnings.** Compute the missing amounts (in millions) in the following table. (The balance in retained earnings at year-end 2006 was \$2.2.) Comment on the firm's performance

over the three-year period after calculating the level of expenses as a percentage of total revenues and net income as a percentage of total revenues. What advice would you give to this company in regards to its dividend policy?

	2004	2005	2006
Retained earnings (beginning) . . . . .	\$1.2	\$ 2.0	?
Revenues . . . . .	8.8	11.8	11.8
Expenses . . . . .	7.4	?	11.0
Dividends . . . . .	?	.6	.6

**E1.26 Key Relations: Revenues, Expenses, Dividends, and Retained Earnings.** Compute the missing amounts in the following table. (At the end of 2006, retained earnings had a balance of negative \$2,086.) Comment on the company's performance over the three-year period after calculating the relationship of expenses as a percentage of revenues and net income as a percentage of revenues. Do you agree with the company's dividend policy? Why?

	2004	2005	2006
Retained earnings (beginning) . . . . .	\$(1,746.5)	\$(1,830.5)	\$(2,653.0)
Revenues . . . . .	4,840.5	5,327.0	?
Expenses . . . . .	?	5,628.0	5,425.0
Dividends . . . . .	-0-	?	17.5

**E1.27 Financial Statement Results.** In its 2005 annual report to shareholders, **The General Electric Company** reported the following financial results:

- Revenues increased from \$134.5 billion in 2004 to \$149.7 billion in 2005.
- Net income decreased from \$16.8 billion in 2004 to \$16.4 billion in 2005.
- Total assets decreased from \$750.0 billion in 2004 to \$673.5 billion in 2005.
- Shareholders' equity decreased from \$110.8 billion in 2004 to \$109.4 billion in 2005.
- For 2005, the cash flow from operating activities was \$37.6 billion, the cash flow from investing activities was negative \$35.1 billion, and the cash flow from financing activities was negative \$6.2 million.

Discuss the possible explanations for the financial results of the General Electric Company from 2004 to 2005.

**E1.28 Financial Statement Results.** In its 2005 annual report to shareholders, **The Johnson and Johnson Company**, a consumer-products company, reported the following financial results:

- Revenues increased from \$47.7 billion in 2004 to \$50.5 billion in 2005.
- Net income increased from \$8.5 billion in 2004 to \$10.4 billion in 2005.
- Total assets increased from \$53.3 billion in 2004 to \$58.1 billion in 2005.
- Shareholders' equity increased from \$31.8 billion in 2004 to \$37.9 billion in 2005.
- For 2005, the cash flow from operating activities amounted to \$11.9 billion, the cash flow from investing activities amounted to negative \$0.3 billion, and the cash flow from financing activities amounted to negative \$4.5 billion.

Discuss the possible explanations for the financial results of The Johnson and Johnson Company from 2004 to 2005.

**E1.29 Calculating Security Returns.** Presented below are the beginning-of-year common share price ( $P_{t-1}$ ), the end-of-year common share price ( $P_t$ ), and the annual dividend ( $D_t$ ) for three competitors—**General Electric Company**, **Phillips Electronics NV**, and **Siemens AG**.

	$P_{t-1}$	$P_t$	$D_t$
General Electric Co. . . . .	\$32.01	\$34.50	\$0.86
Phillips Electronics NV . . . . .	72.52	72.90	1.28
Siemens AG . . . . .	27.20	25.36	0.52

Calculate the annual return for each of the three individual securities. Which security provided the greatest return over the one-year period? What other information would you need to assess the return/risk trade-off on each of these individual securities?

## PROBLEMS

- P1.30 **Key Financial Statement Relations: Balance Sheet, Income Statement, and Statement of Cash Flow.** Compute the missing amounts in the following financial statements. You may assume that accounts receivable relate only to credit sales and that accounts payable relate only to credit purchases of inventory. There were no sales of property and equipment during 2006 and any purchases of property and equipment were made using cash. What is your assessment of the company's financial performance in 2006?

Balance Sheet at	December 31, 2005	December 31, 2006
<b>Current assets</b>		
Cash .....	\$ ?	\$ 25,000
Marketable securities .....	3,000	5,000
Accounts receivable .....	12,000	37,000
Merchandise inventory .....	52,000	23,000
Prepaid advertising .....	15,000	18,000
Total current assets .....	<u>92,000</u>	<u>108,000</u>
Property, plant and equipment (cost) .....	175,000	?
Accumulated depreciation .....	(35,000)	(63,000)
Land .....	15,000	?
Intangible assets .....	?	7,000
Total assets .....	<u>\$258,000</u>	<u>\$342,000</u>
<b>Current liabilities</b>		
Accounts payable .....	\$ 12,000	\$ 23,000
Wages payable .....	?	18,000
Interest payable .....	6,000	5,000
Dividends payable .....	3,000	?
Taxes payable .....	17,000	12,000
Total current liabilities .....	<u>43,000</u>	<u>60,000</u>
Long-term debt .....	?	86,000
Shareholders' equity .....		
Common stock .....	150,000	172,000
Retained earnings .....	23,000	32,000
Treasury stock .....	(10,000)	?
Total liabilities and shareholders' equity .....	<u>\$258,000</u>	<u>\$342,000</u>

Income Statement for Year Ending	December 31, 2006
Sales revenue .....	\$ ?
Cost of sales .....	<u>123,000</u>
Gross profit .....	162,000
Expenses:	
Wages .....	15,000
Advertising .....	18,000
Depreciation .....	?
Amortization .....	4,000
Total expenses .....	<u>65,000</u>
Operating profit .....	97,000
Interest .....	?
Income (loss) before taxes .....	88,000
Tax expense .....	35,000
Net income .....	<u>\$ 53,000</u>

Statement of Cash Flow for Year Ended	December 31, 2006
<i>Cash flow from operating activities</i>	
Cash collections from customers . . . . .	\$ 260,000
Cash payments for: . . . . .	
Inventory . . . . .	(83,000)
Wages . . . . .	(2,000)
Taxes . . . . .	(40,000)
Interest . . . . .	(10,000)
Advertising . . . . .	?
Net cash provided by operations . . . . .	104,000
<i>Cash flow from investing activities</i>	
(Purchase) sale of property, plant and equipment . . . . .	(111,000)
(Purchase) sale of marketable securities . . . . .	?
(Purchase) sale of land . . . . .	11,000
Net cash provided by investing activities . . . . .	(102,000)
<i>Cash flow from financing activities</i>	
Issuance (repayment) of long-term debt . . . . .	34,000
Payment of dividend . . . . .	(45,000)
Issuance (repurchase) of common stock . . . . .	?
(Purchase) sale of treasury stock . . . . .	2,000
Net cash provided by financing activities . . . . .	13,000
Change in cash . . . . .	\$ ?

**P1.31 Key Financial Statement Relations: Balance Sheet, Income Statement, and Statement of Cash Flow.** Compute the missing amounts in the following financial statements. You may assume that accounts receivable relate only to credit sales and that accounts payable relate only to credit purchases of inventory. There were no sales of property and equipment during 2006 and any purchases of property and equipment were made using cash. What is your assessment of the company's financial performance in 2006?

Balance Sheet at	December 31, 2005	December 31, 2006
<i>Current assets</i>		
Cash . . . . .	\$ 18,000	\$ ?
Marketable securities . . . . .	2,000	5,000
Accounts receivable . . . . .	8,000	10,000
Merchandise inventory . . . . .	41,000	58,000
Prepaid advertising . . . . .	13,000	16,000
Total current assets . . . . .	82,000	104,000
Property, plant and equipment (cost) . . . . .	?	201,000
Accumulated depreciation . . . . .	(41,000)	(52,000)
Land . . . . .	12,000	19,000
Intangible assets . . . . .	12,000	?
Total assets . . . . .	\$227,000	\$282,000
<i>Current liabilities</i>		
Accounts payable . . . . .	\$ 18,000	\$ ?
Wages payable . . . . .	15,000	18,000
Interest payable . . . . .	?	6,000
Dividends payable . . . . .	2,000	4,000
Taxes payable . . . . .	5,000	1,000
Total current liabilities . . . . .	48,000	50,000
Long-term debt . . . . .	46,000	?
<i>Shareholders' equity</i>		
Common stock . . . . .	121,000	160,000
Retained earnings . . . . .	22,000	32,000
Treasury stock . . . . .	?	(12,000)
Total liabilities and shareholders' equity . . . . .	\$227,000	\$282,000

Income Statement for Year Ending	December 31, 2006
Sales revenue . . . . .	\$140,000
Cost of sales . . . . .	<u>87,000</u>
Gross profit . . . . .	53,000
Expenses	
Wages . . . . .	?
Advertising . . . . .	5,000
Depreciation . . . . .	?
Amortization . . . . .	<u>2,000</u>
Total expenses . . . . .	<u>24,000</u>
Operating profit . . . . .	29,000
Interest . . . . .	<u>3,000</u>
Income (loss) before taxes . . . . .	26,000
Tax expense . . . . .	?
Net Income . . . . .	<u>\$ 18,000</u>
Statement of Cash Flow for Year Ended	December 31, 2006
<i>Cash flow from operating activities</i>	
Cash collections from customers . . . . .	\$ ?
Cash payments for:	
Inventory . . . . .	(101,000)
Wages . . . . .	(3,000)
Taxes . . . . .	(12,000)
Interest . . . . .	(5,000)
Advertising . . . . .	<u>(8,000)</u>
Net cash provided by operations . . . . .	9,000
<i>Cash flow from investing activities</i>	
(Purchases) sale of property, plant and equipment . . . . .	(39,000)
(Purchase) sale of marketable securities . . . . .	(3,000)
(Purchase) sale of land . . . . .	?
Net cash provided by investing activities . . . . .	<u>(49,000)</u>
<i>Cash flow from financing activities</i>	
Issuance (repayment) of long-term debt . . . . .	6,000
Payment of dividend . . . . .	(6,000)
Issuance (repurchase) of common stock . . . . .	39,000
(Purchase) sale of treasury stock . . . . .	<u>(2,000)</u>
Net cash provided by financing activities . . . . .	37,000
Net cash flow . . . . .	<u>\$ (3,000)</u>

## CORPORATE ANALYSIS

**CA1.32 The Procter and Gamble Company.** The 2005 annual report of **The Procter and Gamble Company (P & G)** is available at [www.pg.com/annualreports/2005/pdf/pg2005annualreport.pdf](http://www.pg.com/annualreports/2005/pdf/pg2005annualreport.pdf). After reviewing P & G's annual report, respond to the following questions:

- Prepare a list of some of the products produced by P & G. In what industry does P & G operate? Who are some of P & G's key competitors? (To identify the key competitors for P & G, you will need to access the Internet (e.g., <http://finance.yahoo.com>) or obtain a copy of a recent research report for P & G.)
- How much net income did P & G earn in 2003, 2004, and 2005? How much operating revenue did P & G report in 2003, 2004, and 2005? Are the trends in operating revenue and net income consistent and positive (i.e., increasing)?

- c. How much cash flow from operations was generated by P & G in 2003, 2004, and 2005? Is the trend in the cash flow from operations consistent with the trend in operating revenue and net income? Calculate the ratio of the cash flow from operations divided by net income for 2003, 2004, and 2005. (Note: The ratio of cash flow from operations divided by net income is called the “operating funds ratio.”) What does this ratio tell you?
- d. Calculate the ratio of total liabilities divided by total assets for 2004 and 2005. What does this ratio tell you? Is P & G principally debt-financed or principally equity-financed? Is the form of P & G’s financing changing over time?
- e. Consider the audit report for P & G. Who are P & G’s auditors? What does P & G’s audit report say about the firm’s financial statements? Is there anything in P & G’s audit report that causes you any concern? If so, what?

**CA1.33 Internet-based Analysis.** Consider a publicly held company whose products you are familiar with. Some examples might include:

Company	Product	Corporate Website
• <b>Johnson &amp; Johnson Company</b>	• Band-Aids	• <a href="http://www.jnj.com">www.jnj.com</a>
• <b>Microsoft Corporation</b>	• Windows XP software	• <a href="http://www.microsoft.com">www.microsoft.com</a>
• <b>Nokia Corporation</b>	• Cellular phones	• <a href="http://www.nokia.com">www.nokia.com</a>
• <b>Intel Corporation</b>	• Pentium processors	• <a href="http://www.intel.com">www.intel.com</a>
• <b>Kimberly-Clark Corporation</b>	• Kleenex	• <a href="http://www.kimberly-clark.com">www.kimberly-clark.com</a>

Access the company’s public website and search for its most recent annual report. (Some companies will provide access to their financial data through an “investor relations” link, while others will provide a direct link to their “annual reports.”) After locating your company’s most recent annual report, open the file and review its contents. After reviewing the annual report for your selected company, prepare answers to the following questions:

1. Prepare a list of the company’s products.
2. Identify which accounting firm audited the company’s financial data. Briefly describe the contents of the audit report.
3. How much net income did the company earn in each of the past two years?
4. How much cash flow from operations did the company generate in each of the last two years?
5. Explain why the amount of net income and the cash flow from operations differed?
6. Comment on the company’s performance and financial health over the last two years. Is the company’s performance and financial health improving or declining? Why?