Financial Accounting

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Chapter 1: Why Is Financial Accounting Important?

Video Clip

(click to see video)

Unnamed Author introduces the course objectives and Chapter 1 “Why Is Financial Accounting Important?”.

1.1 Making Good Financial Decisions about an Organization

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Define "financial accounting."
2. Understand the connection between financial accounting and the communication of information.
3. Explain the importance of learning to understand financial accounting.
4. List decisions that an individual might make about an organization.
5. Differentiate between financial accounting and managerial accounting.
6. Provide reasons for individuals to be interested in the financial accounting information supplied by their employers.

Question: This textbook professes to be an introduction to financial accounting. A logical place to begin such an exploration is to ask the obvious question: *What is financial accounting?*

Answer: In simplest terms, **financial accounting** is the communication of information about a business or other type of organization (such as a charity or government) so that individuals can assess its financial health and prospects. Probably no single word is more relevant to financial accounting than "information." Whether it is gathering financial information about a specific organization, putting that information into a structure designed to enhance communication, or working to understand the information being conveyed, financial accounting is intertwined with information.

In today's world, information is king. Financial accounting provides the rules and structure for the conveyance of financial information about businesses (and other organizations). At any point in time, some businesses are poised to prosper while others teeter on the verge of failure. Many people are seriously interested in evaluating the degree of success achieved by a particular organization as well as its prospects for the future. They seek information. Financial accounting provides data that these individuals need and want.

organization → reports information based on the principles of financial accounting → individual assesses financial health

Question: *Every semester*, *most college students are enrolled in several courses as well as participate in numerous outside activities*. *All of these compete for the hours in each person's day*. *Why should a student invest valuable* *time to learn the principles of financial accounting? Why should anyone be concerned with the information communicated about an organization? More concisely, what makes financial accounting important?*

Answer: Many possible benefits can be gained from acquiring a strong knowledge of financial accounting and the means by which information is communicated about an organization. In this book, justification for the serious study that is required to master the subject matter is simple and straightforward: obtaining a working knowledge of financial accounting and its underlying principles enables a person to understand the information conveyed about an organization so that better decisions can be made.

Around the world, millions of individuals make critical judgments each day about the businesses and other organizations they encounter. Developing the ability to analyze financial information and then using that knowledge to arrive at sound decisions can be critically important. Whether an organization is as gigantic as Wal-Mart or as tiny as a local convenience store, a person could have many, varied reasons for making an assessment. As just a single example, a recent college graduate looking at full-time employment opportunities might want to determine the probability that Company A will have a brighter economic future than Company B. Although such decisions can never be correct 100 percent of the time, knowledge of financial accounting and the information being communicated greatly increases the likelihood of success. As Kofi Annan, former secretary-general of the United Nations, has said, "Knowledge is power. Information is liberating[1]."

Thus, the ultimate purpose of this book is to provide students with a rich understanding of the rules and nuances of financial accounting so they can evaluate available information and then make good choices about those organizations. In the world of business, most successful individuals have developed this talent and are able to use it to achieve their investing and career objectives.

Question: Knowledge of financial accounting assists individuals in making informed decisions about businesses and other organizations. What kinds of evaluations are typically made? For example, assume that a former student—one who recently graduated from college—has been assigned the task of analyzing financial data provided by Company C. What real-life decisions could a person be facing where an understanding of financial accounting is beneficial?

Answer: The number of possible judgments that an individual might need to make about a business or other organization is close to unlimited. However, many decisions deal with current financial health and the prospects for future success. In making assessments of available data, a working knowledge of financial accounting is invaluable. The more in-depth the understanding is of those principles, the more likely the person will be able to use the available information to arrive at the best possible choice. Common examples include the following:

- The college graduate might be employed by a bank to work in its corporate lending department. Company C is a local business that has applied to the bank for a large loan. The graduate has been asked by bank management to prepare an assessment of Company C to determine if it is likely to be financially healthy in the future so that it will be able to repay the money when due. A correct decision to lend the money eventually earns the bank profit because Company C (the debtor) will be required to pay an extra amount (known as **interest**) on the money borrowed. Conversely, an incorrect analysis of the information could lead to a substantial loss if the loan is granted and Company C is unable to fulfill its obligation. Bank officials must weigh the potential for profit against the risk of loss. That is a daily challenge in virtually all businesses. The former student's career with the bank might depend on the ability to analyze financial accounting data and then make appropriate choices about the actions to be taken. Should a loan be made to this company?

- The college graduate might hold a job as a credit analyst for a manufacturing company that sells its products to retail stores. Company C is a relatively new retailer that wants to buy goods (inventory) for its stores on credit from this manufacturer. The former student must judge whether it is wise to permit Company C to buy goods now but wait until later to remit the money. If payments are received on a timely basis, the manufacturer will have found a new outlet for its merchandise. Profits will likely increase. Unfortunately, another possibility also exists. Company C could make expensive purchases but then be unable to make payment, creating significant losses for the manufacturer. Should credit be extended to this company?
- The college graduate might be employed by an investment firm that provides financial advice to its clients. The firm is presently considering whether to recommend acquisition of the ownership shares of Company C as a good investment strategy. The former student has been assigned to gather and evaluate relevant financial information as a basis for this decision. If Company C is poised to become stronger and more profitable, its ownership shares will likely rise in value over time, earning money for the firm's clients. Conversely, if the prospects for Company C appear to be less bright, the value of these shares might be expected to drop (possibly precipitously) so that the investment firm should avoid suggesting the purchase of an ownership interest in Company C. Should shares of this company be recommended for acquisition?

Success in life—especially in business—frequently results from making appropriate decisions. Many economic choices, such as those described above, depend on the ability to understand and make use of the financial information that is produced and presented about an organization in accordance with the rules and principles underlying financial accounting.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092614.html

Question: A great number of possible decisions could be addressed in connection with an organization. Is an understanding of financial accounting relevant to all business decisions? What about the following?

- *Should a business buy a building to serve as its new headquarters or rent a facility instead?*
- *What price should a data processing company charge customers for its services?*
- *Should advertisements to alert the public about a new product be carried on the Internet or on television?*

Answer: Organizational decisions such as these are extremely important for success. However, these examples are not made about the reporting organization. Rather, they are made within the organization in connection with some element of its operations.

The general term “accounting” refers to the communication of financial information for decision-making purposes. Accounting is then further subdivided into (a) financial accounting and (b) **managerial accounting**The communication of financial information within an organization so internal decisions can be made in an appropriate manner[2].. Financial accounting is the subject explored in this textbook. It focuses on conveying relevant data (primarily to external parties) so that decisions can be made about an organization (such as Motorola or Starbucks) as a whole. Thus, questions such as the following all fall within the discussion of financial accounting:

- Do we loan money to Company C?
- Do we sell on credit to Company C?
- Do we recommend that our clients buy the ownership shares of Company C?

They relate to evaluating the financial health and prospects of Company C as a whole.

Managerial accounting is the subject of other books and other courses. This second branch of accounting refers to the communication of information within an organization so that internal decisions (such as whether to buy or rent a building) can be made in an appropriate manner. Individuals studying an organization as a whole have different goals than do internal parties making operational decisions. Thus, many unique characteristics have developed in connection with each of these two branches of accounting. Financial accounting and managerial accounting have evolved independently over the decades to address the specific needs of the users being served and the decisions being made. This textbook is designed to explain those attributes that are fundamental to attaining a usable understanding of financial accounting.

It is not that one of these areas of accounting is better, more useful, or more important than the other. Financial accounting and managerial accounting have simply been created to achieve different objectives. They both do their jobs well; they just do not have the same jobs.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092571.html

Question: Financial accounting refers to the conveyance of information about an organization as a whole and is most frequently directed to assisting outside decision makers. Is there any reason for a person who is employed by a company to care about the financial accounting data reported about that organization? Why should an employee in the marketing or personnel department of Company C be interested in the financial information that it distributes?

Answer: As indicated, financial accounting is designed to portray the overall financial condition and prospects of an organization. Every employee should be quite interested in assessing that information to judge future employment prospects. A company that is doing well will possibly award larger pay raises or perhaps significant end-of-year cash bonuses. A financially healthy organization can afford to hire new employees, buy additional equipment, or pursue major new initiatives. Conversely, when a company is struggling and prospects are dim, employees might anticipate layoffs, pay cuts, or reductions in resources.

Thus, although financial accounting information is often directed to outside decision makers, employees should be vitally interested in the financial health of their own organization. No one wants to be clueless as to whether their employer is headed for prosperity or bankruptcy. In reality, employees are often the most avid readers of the financial accounting information distributed by their employers because the results can have such an immediate and direct impact on their jobs and, hence, their lives.

Key Takeaway

Financial accounting encompasses the rules and procedures to convey financial information about an organization. Individuals who attain a proper level of knowledge of financial accounting can utilize this information to make decisions based on the organization's perceived financial health and outlook. Such decisions might include assessing employment potential, lending money, granting credit, and buying or selling ownership shares. However, financial accounting does not address issues that are purely of an internal nature, such as whether an organization should buy or lease equipment or the level of pay raises. Information to guide such internal decisions is generated according to managerial accounting rules and procedures that are introduced in other books and courses. Despite not being directed toward the inner workings of an organization, employees are interested in financial accounting because it helps them assess the future financial prospects of their employer.

[1]See http://www.deepsky.com/~madmagic/kofi.html.

[2]Tax accounting serves as another distinct branch of accounting. It is less focused on decision making and more on providing the information needed to comply with all government rules and regulations. Even in tax accounting, though, decision making is important as companies seek to take all possible legal actions to minimize tax payments.

1.2 Incorporation and the Trading of Capital Shares

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Define “incorporation.”
2. Explain the popularity of investing in the capital stock of a corporation.
3. Discuss the necessity and purpose of a board of directors.
4. List the potential benefits gained from acquiring capital stock.

Question: Above, in discussing the possible decisions that could be made about an organization, ownership shares were mentioned. Occasionally, on television, in newspapers, or on the Internet, mention is made that the shares of one company or another have gone up or down in price during that day because of trading on one of the stock markets. Why does a person or an organization acquire ownership shares of a business such as Capital One or Intel?

Answer: In the United States, as well as in many other countries, owners of a business or other type of organization can apply to the state government to have it identified as an entity legally separate from its owners. This process is referred to as **incorporation**. Therefore, a **corporation** is an organization that has been formally recognized by the government as a legal entity. A business that has not been incorporated is legally either a **sole proprietorship** (one owner) or a **partnership** (more than one owner).

As will be discussed in detail in Chapter 16 “In a Set of Financial Statements, What Information Is Conveyed about Shareholders’ Equity?”, several advantages can be gained from incorporation. For one, a corporation has the ability to issue (sell) shares to obtain monetary resources and allow investors to become owners (also known as **stockholders** or **shareholders**). The Walt Disney Company and General Electric, as just two examples, are corporations. They exist as legal entities completely distinct from the multitude of individuals and organizations that possess their ownership shares (also known as equity or **capital stock**).

Any investor who acquires one or more capital shares of a corporation is an owner and has rights that are specified by the state government or on the stock certificate. The number of shares and owners can be staggering. At the end of 2008, owners held over 2.3 billion shares of The Coca-Cola Company. Thus, possession of one share of The Coca-Cola Company at that time gave a person approximately a 1/2,300,000,000th part of the ownership[1].

If traded on a stock exchange, shares of the capital stock of a corporation continually go up and down in value based on myriad factors, including the perceived financial health and prospects of the organization. As an example, during trading on December 4, 2009, the price of an ownership share of Intel rose by $0.59 to $20.46, while a share of Capital One went up by $1.00 to $37.92.

For countless individuals and groups around the world, the most popular method of investment is through the purchase and sell of these shares of corporate ownership. Although a number of other types of investment opportunities are available (such as the acquisition of gold or land), few evoke the level of interest of capital stock[2]. On the **New York Stock Exchange** alone, billions of shares are bought and sold every business day at a wide range of prices. As of December 4, 2009, an ownership share of Ford Motor Company was trading for $8.94, while a single share of Berkshire Hathaway sold for thousands of dollars.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092597.html

Question: In most cases, the owners of a small corporation should be able to operate the business effectively. For example, one person might hold one hundred shares of capital stock while another owns two hundred. Those two individuals must learn to work together to manage the business on a day-to-day basis. Large corporations offer a significantly different challenge. How could millions of investors possessing billions of capital shares of a single corporation ever serve in any reasonable capacity as the ownership of that organization?

Answer: Obviously, a great many companies like The Coca-Cola Company have an enormous quantity of capital shares outstanding. Virtually none of these owners can expect to have any impact on the daily operations of the corporation. In a vast number of such businesses, stockholders simply vote to elect a representative group to oversee the company for them. This body—called the **board of directors**A group that oversees the management of a corporation; the members are voted to this position by stockholders; it hires the management to run the company on a daily basis and then meets periodically to review operating and financing results and also approve policy and strategy[3].—is made up of approximately ten to twenty-five knowledgeable individuals. As shown in Figure 1.1 "Company Operational Structure", the board of directors hires the members of management to run the company on a daily basis and then meets periodically (often quarterly) to review operating and financing results as well as to approve strategic policy initiatives.

Figure 1.1 Company Operational Structure

Ownership	Each capital share is the equivalent of one unit of ownership.
Board of Directors	Elected by shareholders to hire and oversee the management of the company and make policy decisions.
Management	Officials such as the president, the chief financial officer, and the director of marketing who are in charge of daily operations.
Employees	All individuals who work for a company who are not deemed to be members of the management.

Occasionally, the original founders of a business (or their descendants) continue to hold enough shares to influence or actually control its operating and financial decisions. Or wealthy outside investors may acquire enough shares to gain this same level of power. Such owners have genuine authority within the corporation. Because these cases are less common, the specific financial accounting issues involved with this degree of ownership will be deferred until a later chapter. In most cases, the hierarchy of owners, board of directors, management, and employees remains intact. Thus, stockholders are usually quite removed from the operations of any large corporation.

Question: The acquisition of capital shares is an extremely popular investment strategy across a wide range of the population. A buyer becomes one of the owners of the corporation. Why spend money in this way especially since very few stockholders can ever hope to hold enough shares to participate in managing or influencing the operations? Ownership shares sometimes cost small amounts but can also require hundreds if not thousands of dollars. What is the potential benefit of buying capital stock issued by a business organization?

Answer: Capital shares of thousands of corporations trade each day on markets around the world, such as the New York Stock Exchange or **NASDAQ (National Association of Securities Dealers Automated Quotation Service)**. One party is looking to sell shares whereas another is seeking shares to buy. Stock markets match up these buyers and sellers so that a mutually agreed-upon price can be negotiated. This bargaining process allows the ownership interest of all these companies to change hands with relative ease.

When investors believe a company is financially healthy and its future is bright, they expect prosperity and growth. If that happens, the negotiated price for this company's capital stock should rise over time. Everyone attempts to anticipate such movements in order to buy the stock at a low price and sell it later at a higher one. Conversely, if predictions are not optimistic, then the share price is likely to drop and owners face the possibility of incurring losses in the value of their investments. Many factors affect the movement of stock prices such as the perceived quality of the management, historical trends in profitability, the viability of the industry in which it operates, and the health of the economy as a whole.

Financial accounting information plays an invaluable role in this market process as millions of investors attempt each day to assess the financial condition and prospects of corporate organizations. Being able to understand and make use of reported financial data helps improve the investor's knowledge of a company and, thus, the chance of making wise decisions that will generate profits from buying and selling capital shares. Ignorance can lead to poor decisions and much less lucrative outcomes.

In the United States, such investment gains—if successfully generated—are especially appealing to individuals if the shares are held for over twelve months before being sold. For income tax purposes, the difference between the buy and sale prices for such investments is referred to as a **long-term capital gain or loss**Occurs when certain investments are held for more than twelve months before being sold; a favorable tax treatment can result when gains are earned.. Under certain circumstances, significant tax reductions are allowed in connection with long-term capital gains[4]. Congress created this tax incentive to encourage investment so that businesses could more easily obtain money for growth purposes.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092598.html

Question: *Investors acquire ownership shares of selected corporations hoping that the stock values will rise over time. This investment strategy is especially tempting because net long-term capital gains are taxed at a relatively low rate. Is the possibility for appreciation of stock prices the only reason that investors choose to acquire capital shares?*

Answer: Many corporations—although certainly not all—also pay cash **dividends**Distributions made by a corporation to its shareholders as a reward when income has been earned; shareholders often receive favorable tax treatment when cash dividends are collected. to their stockholders periodically. A dividend is a reward for being an owner of a business that is prospering. It is not a required payment; it is a sharing of profits with the stockholders. As an example, for 2008, Duke Energy reported earning profits (net income) of $1.36 billion. During that same period, the corporation distributed a total cash dividend of approximately $1.14 billion to the owners of its capital stock[5].

The board of directors determines whether to pay dividends. Some boards prefer to leave money within the business to stimulate future growth and additional profits. For example, Yahoo! Inc. reported profits (net income) for 2008 of over $424 million but paid no dividends to its owners.

Not surprisingly, a variety of investing strategies abound. Some investors acquire ownership shares almost exclusively in hopes of benefiting from the potential for significant appreciation of stock prices. Another large segment of the investing public is more interested in the possibility of dividend payments. Unless an owner has the chance to influence or control operations, only these two possible benefits can accrue: appreciation in the value of the stock price and cash dividends.

Question: An investor can put money into a savings account at a bank and earn a small but relatively risk free *profit. For example, $100 could be invested on January 1 and then be worth $102 at the end of the year because interest is added. The extra $2 means that the investor is earning an annual return of 2 percent ($2 increase/$100 investment). How is the annual return computed when the capital stock of a corporation is acquired?*

Answer: Capital stock investments are certainly not risk free. Profits can be high, but losses are also always a possibility. Assume that on January 1, Year One, an investor spends $100 for one ownership share of Company A and another $100 for a share of Company B. During the year, Company A distributes a dividend of $1.00 per share to its owners while Company B pays $5.00 per share. On December 31, the stock of Company A is selling on the stock market for $108 per share whereas the stock of Company B is selling for $91 per share.

The investor now holds a total value of $109 as a result of the purchase of the share of Company A: the cash dividend of $1 and a share of stock worth $108. Total value has gone up $9 ($109 less $100) so that the annual return for the year was 9 percent ($9 increase/$100 investment).

The shares of Company B have not performed as well. Total value is now only $96: the cash dividend of $5 plus one share of stock worth $91. That is a drop of $4 during the year ($96 less $100). The annual return on this investment is a negative 4 percent ($4 decrease/$100 investment).

Clearly, investors want to have all the information they need in hopes of maximizing their potential profits each year. A careful analysis of the available data might have helped this investor choose Company A rather than Company B.

Key Takeaway

Incorporation allows an organization to be viewed as a separate entity apart from its ownership. As a corporation, shares of capital stock can be issued that give the holder an ownership right. If the organization is financially healthy and prospering, these shares can increase in value—possibly by a significant amount. In addition, a profitable organization may well share its good fortune with the ownership through the distribution of cash dividends. In most large organizations, few owners want to be involved in the operational decision making. Instead, these stockholders elect a board of directors to oversee the company and direct the work of management.

[1]Sole proprietorships and partnerships rarely sell capital shares. Without the legal authority of incorporation, a clear distinction between owner and business often does not exist. For example, debts incurred by the business may ultimately have to be satisfied by the owner personally. Thus, individuals tend to avoid making investments in unincorporated businesses unless they can be involved directly in the management. For that reason, active trading of partnership and proprietorship ownership interests is usually limited or nonexistent. One of the great advantages of incorporation is the ease by which capital stock can usually be exchanged. Investors frequently buy or sell such shares on stock exchanges in a matter of moments. However, partnerships and sole proprietorships still remain popular because they are easy to create and offer possible income tax benefits as will be discussed in a future chapter.

[2]The most prevalent form of capital stock is common stock so that these two terms have come to be used

somewhat interchangeably. As will be discussed in a later chapter, the capital stock of some corporations is made up of both common stock and preferred stock.

[3]A story produced by National Public Radio on the roles played by a board of directors can be found at http://www.npr.org/templates/story/story.php?storyId=105576374.

[4]This same tax benefit is not available to corporate taxpayers, only individuals.

[5]The receipt of cash dividends is additionally appealing to stockholders because, in most cases, they are taxed at the same reduced rates as are applied to net long-term capital gains.

1.3 Using Financial Accounting for Wise Decision Making

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. List the predictions that investors and potential investors want to make.
2. List the predictions that creditors and potential creditors want to make.
3. Distinguish financial accounting information from other types of data about a business organization.
4. Explain how financial accounting information is enhanced and clarified by verbal explanations.

Question: Investors are interested (sometimes almost obsessively interested) in the financial information that is produced by a company based on the rules and principles of financial accounting. They want to use this information to make wise investing decisions. What do investors actually hope to learn about a company from this financial information?

Answer: The information reported by financial accounting is similar to a giant, complex portrait painted of the organization. There are probably hundreds, if not thousands, of aspects that can be examined, analyzed, and evaluated in assessing the financial health and future prospects of the model. Theories abound as to which pieces of information are best to use when studying a business. One investor might prefer to focus on a particular portion of the data almost exclusively (such as profitability) while another may believe that entirely different information is most significant (such as the sources and uses of cash during the period).

Ultimately, in connection with the buying and selling of capital stock, all investors are trying to arrive at the same two insights. They are attempting to use the provided data to estimate (1) the price of the corporation's stock in the future and (2) the amount of cash dividends that will be paid over time. Despite the complexity of the information, these two goals are rather simplistic. If an investor owns capital shares of a company and feels that the current accounting information signals either a rise in stock prices or strong dividend payments, holding the investment or even buying more shares is probably warranted. Conversely, if careful analysis indicates a possible drop in stock price or a reduction in dividend payments, sale of the stock is likely to be the appropriate action.

Interestingly, by the nature of the market, any exchange of ownership shares means that the buyer has studied available information and believes the future to be relatively optimistic for the business in question. In contrast, the seller has looked at similar data and arrived at a pessimistic outlook.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092616.html

Question: *Are there reasons to analyze the financial accounting information produced by a particular business other than to help investors predict stock prices and cash dividend payments?*

Answer: The desire to analyze a company's financial situation is not limited to investors in the stock market. For example, as discussed previously, a loan might be requested from a bank or one company could be considering the sale of its merchandise to another on credit. Such obligations eventually require payment. Therefore, a sizeable portion of the parties that study the financial information reported by an organization is probably most interested in the likelihood that money will be available to pay its debts. Future stock prices and cash dividend distributions are much less significant speculations for a creditor.

The same financial data utilized by investors buying or selling stock will also be of benefit to current and potential creditors. However, this second group is likely to focus its attention on particular elements of the information such as the amount of the company's debt, when that debt is scheduled to come due, and the perceived ability to generate cash to meet those demands in a timely fashion. Ultimately, creditors attempt to anticipate the organization's cash flows to measure the risk that debt principal and interest payments might not be forthcoming when due[1].

Therefore, millions of individuals use reported financial information to assess various business organizations in order to make three predictions:

- Future stock market prices for the capital shares issued by the company
- Future cash dividend distributions
- Future ability to generate sufficient cash to meet debts as they mature

The first two relate to investors in the capital stock of the company; the last is of more significance to a creditor.

Question: The term "financial information" comes up frequently in these discussions. What is meant by financial information?

Answer: The financial information reported by and about an organization consists of data that can be measured in monetary terms. For example, if a building cost $4 million to acquire, that is financial information as is the assertion that a company owes a debt of $700,000 to a bank. In both cases, relevant information is communicated to decision makers as a monetary balance. However, if a company has eight thousand employees, that number might be interesting but it is not financial information. The figure is not a dollar amount; it is not stated in the form that is useful for decision-making purposes. Assuming that those workers were paid a total of $500 million during the current year, then that number is financial information because it is stated in terms of the money spent.

Likewise, a men's clothing store does not include in its financial information that it holds ten thousand shirts to be sold. Instead, the company reports that it currently owns shirts for sale (**inventory**) with a cost of, perhaps, $300,000. Or, after having sold these items to customers, the company could explain that it had made sales during the period for a total of $500,000.

Question: The value of reported data seems somewhat restricted if it only includes dollar amounts. Is financial information limited solely to figures that can be stated in monetary terms?

Answer: Although financial accounting starts by reporting balances as monetary amounts, the communication process does not stop there. Verbal explanations as well as additional numerical data are also provided to clarify or expand the information where necessary. To illustrate, assume that an organization is the subject of a lawsuit and estimates an eventual loss of $750,000. This is financial information to be reported based on the rules of financial accounting. However, the organization must also communicate other nonfinancial information such as the cause of the lawsuit and the likelihood that the loss will actually occur. Thus, accounting actually communicates to decision makers in two distinct steps:

1. Financial information is provided in monetary terms
2. Further explanation is given to clarify and expand on those monetary balances

Key Takeaway

Throughout the world, investors buy and sell the capital stock of thousands of businesses. Others choose to loan money to these same organizations. Such decisions are based on assessing potential risks and rewards. Financial accounting provides information to these interested parties to help them evaluate the possibility of stock value appreciation, cash dividend distributions, and the ability to generate cash to meet obligations as they come due. This information is financial in nature, meaning that it is stated in monetary terms. However, such numerical information alone is too limited. Thus, financial accounting provides financial information as well as clarifying verbal explanations to assist users in evaluating the financial health and potential of a particular organization.

Talking with a Real Investing Pro

Kevin G. Burns is a partner in his own registered investment advisory firm, LLBH Private Wealth Management, an organization that specializes in asset management, concentrated stock strategies, and wealth transfer. LLBH consults on investing strategies for assets of nearly $1 billion. Before starting his own firm in October 2008, he was first vice president of Merrill Lynch Private Banking and Investment Group. Burns began his career on Wall Street in 1981 at Paine Webber. He has also worked at Oppenheimer & Co. and Smith Barney. Burns has appeared several times on the

CBS Evening News. He has been kind enough to agree to be interviewed about his opinions and experiences in using accounting information. His firm's Web site is http://www.LLBHprivatewealthmanagement.com.

Question: You majored in accounting in college but you never worked in the accounting field. Instead, you became an investment advisor. If you never planned to become an accountant, why did you major in that subject?

Kevin Burns: In my view, accounting is the backbone of any business major in college. Being able to translate the information that a company provides, prepare a budget, understand the concept of revenues and expenses, and the like has been enormously helpful in my investment management business. Anyone majoring in any aspect of business needs that knowledge. I also liked being able to know I had the right answers on the tests that my accounting professors gave me when all the numbers added up properly.

Question: Why do you prefer to invest in the capital stock of a business rather than put your client's money in other forms of investment such as gold or real estate?

KB: I think it is very important to diversify investments. In my world, that includes stocks as well as other types of investments. Of course, there is a place for investments in real estate, commodities, and the like. My personal preference is to invest only in very liquid assets; those—such as stocks—that can be turned into cash quickly. I like to know, even if I am investing for the long term, that I can sell my investments five minutes after I buy them should I change my mind. I simply prefer liquid investments. Real estate is not very liquid. Gold, of course, is liquid. However, while it has appreciated lately, it was around $800 an ounce when I was in high school and is now about $900 an ounce. If my clients earned a total return of 10 or 12 percent on their money over forty years, they would fire me.

What Was Truly Important?

To students of financial accounting:

You have now read Chapter 1 "Why Is Financial Accounting Important?". What were the five points that you encountered in this chapter that seemed most important to you? A lot of information is provided here. What stood out as truly significant? After you make your choices, go to the following link and watch a short video clip where one of the authors will make an analysis of the top five points presented here in Chapter 1 "Why Is Financial Accounting Important?". You can learn the rationale for these picks and see whether you agree or disagree with the selections.

Video Clip

" href="http://app.wistia.com/embed/medias/f9cb446d1b" class="replaced-iframe">(click to see video)

Unnamed Author talks about the five most important points in Chapter 1 "Why Is Financial Accounting Important?".

[1]Cash flows also influence stock prices and dividend payments and would, thus, be information useful for potential investors in the capital stock of a company as well as its creditors.

1.4 End-of-Chapter Exercises

Questions

1. What is financial accounting?
2. How does financial accounting differ from managerial accounting?
3. List the potential users of the information provided by financial accounting.
4. What is a corporation?
5. How does a business become a corporation?
6. Why would a business want to become a corporation?
7. What is the board of directors of a corporation?
8. Why do individuals or entities choose to invest in the capital stock of corporations?
9. How does an investor differ from a creditor?
10. What is financial information?

True or False

1. ____ Financial accounting helps with decisions made inside an organization.
2. ____ Typically, a sole proprietor will be able to raise money easier than a corporation.
3. ____ Employees are not users of the information provided by financial accounting.
4. ____ The board of directors of a corporation is elected by its shareholders.
5. ____ Investors who hold investments in a stock longer than a year may enjoy a tax benefit.
6. ____ Corporations are required by law to pay dividends to their shareholders.
7. ____ Purchasing stock is typically a riskier investment than opening a savings account.
8. ____ Financial information is communicated in monetary terms but may be explained verbally.
9. ____ Accountants are the only users of the information provided by financial accounting.
10. ____ An entity that loans a company money is referred to as a "shareholder."

Multiple Choice

1. Ramon Sanchez is a loan officer at Washington Bank. He must decide whether or not to loan money to

Medlock Corporation. Which of the following would Ramon most likely consider when making this decision?

1. Medlock had positive cash flows last year.
2. Medlock paid dividends last year.
3. Medlock's stock price increased last year.
4. The number of stockholders in Medlock increased last year.

2. Which of the following is not a reason an investor would purchase stock in a corporation?

    1. To receive dividend payments
    2. To sell the stock for a gain if the share price increases
    3. To earn a return on their investment
    4. To participate in the day-to-day operations of the business

3. Which of the following would not be considered an example of a decision made using financial accounting information?

    1. An investor decided to invest in the stock of Rayburn Corporation.
    2. A credit analyst at Mayfield Corporation rejected a request for credit from Rayburn Corporation.
    3. A Rayburn Corporation manager decided to increase production of widgets.
    4. A loan officer at Fairburn Bank chose to grant a loan request made by Rayburn Corporation.

4. Which of the following is most likely to have a say in the policy decision of a large corporation?

    1. A stockholder
    2. A member of the board of directors
    3. An employee
    4. A creditor

5. Leon Williams is an investor in Springfield Corporation. On September 1, Year One, he purchased 150 shares of stock at a price of $45 per share. On October 15, Year One, Springfield distributed dividends of $1.50 per share. On December 31, Year One, Springfield's stock is selling for $47 per share. Which of the following is the value of Leon's investment on December 31, Year One?

    1. $6,750
    2. $6,975
    3. $7,050
    4. $7,275

Problems

1. Explain how each of the following might use the information provided by the financial accounting of Nguyen Company.

1. Bank loan officer considering loaning money to Nguyen Company
2. Current employee of Nguyen Company
3. Potential employee of Nguyen Company
4. Current investor in Nguyen Company
5. Potential investor in Nguyen Company
6. A credit analyst of company wanting to sell inventory to Nguyen Company

2. Mark each of the following with an (F) to indicate if it is financial information or an (N) to indicate if it is nonfinancial information.

   Metro Corporation has:

   1. ____ Cash of $4,000,000
   2. ____ A building that cost $50,000,000
   3. ____ 2,000 employees
   4. ____ Inventory worth $16,000,000
   5. ____ 500 shares of capital stock
   6. ____ 1,000 trucks
   7. ____ Sales of $45,000,000

Research

1. The chapter introduced several forms of business, including a corporation, sole proprietorship, and partnership. Other forms of business exist as well. Do research to compare and contrast the following business forms:

   - Sole proprietorship
   - Partnership
   - Limited partnership
   - C corporation
   - S corporation
   - Limited liability company (LLC)

   Examine the following areas for each form of business: ease of organization and maintenance of form, number of people involved, government involvement, liability to owners, ease of exit, taxation, day-to-day management, and funding sources.

2. Corporations usually provide a good amount of financial information on their Web sites. Visit http://www.starbucks.com to access information about Starbucks. You will need to click “about us” at the top and then “investor relations” on the left.

   1. For what amount is Starbucks stock currently selling?
   2. Give the year for the most current annual report listed.

    3. Name three members of Starbucks' board of directors.
    4. Click on "investor FAQ" on the left. Choose a question that interests you. Write it here and summarize the answer given.

3. Go the U.S. Department of Labor Web site at http://www.bls.gov/oco/ocos001.htm. Here you can learn about the profession of accounting.
    1. In general, what functions do accountants perform?
    2. Briefly list the different types of accountants and what they do.
    3. What education is required?
    4. What is a CPA?
    5. What are the typical requirements to become a CPA?
    6. What other certifications are available for accountants?
    7. What is the current job outlook for the accounting profession?

Chapter 2: What Should Decision-makers Know So That Good Decisions Can Be Made about an Organization?

Video Clip

(click to see video)

Unnamed Author introduces Chapter 2 “What Should Decision-makers Know So That Good Decisions Can Be Made about an Organization?” and speaks about the course in general.

2.1 Creating a Portrait of an Organization That Can Be Used by Decision Makers

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Explain the comparison of financial accounting to the painting of a portrait.
2. Understand the reasons why financial accounting information does not need to be exact.
3. Define the term "material" and describe its fundamental role in financial accounting.
4. Define the term "misstatement" and differentiate between the two types of misstatements.

Question: *In Chapter 1 "Why Is Financial Accounting Important?", mention was made that financial accounting is somewhat analogous to the painting of a giant, complex portrait. How could financial accounting possibly be compared to an artistic endeavor such as the creation of a painting?*

Answer: The purpose of a portrait—as might have been painted by Rembrandt, van Gogh, or even Picasso—is to capture a likeness of the artist's model. In a somewhat parallel fashion, financial accounting attempts to present a likeness of an organization that can be used by interested parties to assess its financial health and anticipate future stock prices, dividend payments, and cash flows. Accounting terms such as **representational faithfulness** and **presents fairly** are commonly used to indicate that reported financial information successfully provides a reasonable picture of the financial position, operations, cash flows, and overall economic vitality of a reporting organization.

In accounting, this portrait is created in the form of **financial statements**. These statements provide the form and structure for the conveyance of financial information to describe a particular organization. This textbook is about the preparation of those financial statements and the meaning of their contents.

A human portrait, even by a master such as Rembrandt, is not terribly precise. The shape of the person's chin or the turn of the neck may be off slightly; the color of the eyes and hair cannot possibly be a perfect replica of life. It is a painted portrait, not a photograph (which is much more mechanically accurate). However, absolute exactness is not a necessary element for capturing a proper likeness. Success is achieved when a viewer exclaims, "I know that person!" Exact precision is not required to meet that objective.

Despite public perception, financial accounting information is rarely exact. For example, the reported cost of constructing a building may be off slightly because of the sheer volume of money being spent on the many different aspects of the project. No one expects the reported cost of a $50 million manufacturing plant to be accurate to the penny. As with the painted portrait, that does not necessarily reduce the usefulness of the data. If financial information is a fair representation, an interested party should be able to make use of it to arrive at the desired projections. A potential investor or creditor does not need numbers that are absolutely accurate in order to assert, "Based on the available financial information, I understand enough about this company to make informed decisions. Even if I could obtain figures that were precise, I believe that I would still take the same actions."

An artist applies oil paints, pastels, or watercolors to a canvas to capture the essence of a subject. An accountant does something quite similar by using numbers and words. The goal is much the same: to capture a likeness that truly reflects the essence of the model.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092599.html

Question: This is a surprising, possibly shocking, revelation. Financial accounting information has universally been branded as exhibiting rigid exactness. In fact, accountants are often referred to as "bean counters" because of their perceived need to count every bean in the bowl to arrive at obsessively accurate numbers. Here, though, the assertion is made that accounting information is not a precise picture but merely a fair representation of an organization's financial health and prospects. How correct or exact is the financial information that is reported by a business or other organization?

Answer: In accounting, **materiality** has long been the underlying benchmark in the reporting of information. This concept requires that data presented by an organization to decision makers should never contain any material **misstatements**. For financial accounting information, this is the basic standard for the required level of accuracy. Decision makers want financial statements—such as those prepared by Starbucks or Intel—to contain no material misstatements. Because of their central role in this reporting process, understanding the terms "misstatement" and "material" is essential for any student seeking to understand financial accounting.

A misstatement is an **error** (made accidentally) or **fraud** (done intentionally) where reported figures or words actually differ from the underlying reality. For example, a company official could erroneously record a $100,000 expenditure that was made to acquire a new building as actually pertaining to the purchase of land. Consequently, the building's cost might be reported as $2.3 million when it was actually $2.4 million. This financial information is misstated. The balance presented for the building contains a $100,000 misstatement, as does the figure shown for land.

A misstatement is judged to be material if it is so significant that its presence would impact a decision made by an interested party. Using the above illustration, assume the accidental $100,000 reduction in the reported cost of this building leads an outside decision maker to alter a choice being made (such as whether to buy or sell capital stock, the price to exchange for such shares, or whether to grant a loan). Because of that outcome, the misstatement is material by definition. Financial information can (and almost always does) contain misstatements. However, the reporting entity must take adequate precautions to ensure that the information holds no material misstatements for the simple reason that the data can no longer be considered fairly presented. The portrait of the company does not properly look like the model if it contains any material misstatements. The decision maker is being misled.

The concept of materiality can seem rather nebulous. For a small convenience store, a $10 misstatement is clearly not material whereas a $10 million one certainly is. For a company with real estate holdings of $30 billion, even a $10 million misstatement is probably not material. The problem for the accountant is determining where to draw the line for each organization. That is one of the most difficult decisions for any financial accountant. An exact dollar amount for materiality is virtually impossible to identify because it is a measure of the effect on an external party's judgment. Other than sheer magnitude, the cause of the problem must also be taken into consideration. An accidental mistake of $100,000 is probably less likely to be material than one of $100,000 that resulted from a fraudulent act. Both the size and cause should be weighed in judging whether the presence of a misstatement has the ability to impact a decision maker's actions.

Therefore, a financial accountant never claims that reported information is correct, accurate, or exact. Such precision is rarely possible and not needed when decision makers are analyzing the financial health and prospects of an organization. However, the accountant must take all precautions necessary to ensure that the data contain no material misstatements. Thus, financial figures are never released without reasonable assurance being obtained that no errors or other mistakes are present that could impact the decisions that will be made. All parties need to believe that reported information can be used with confidence in order to evaluate the financial condition and prospects of the organization as a whole.

When a company reports that a building was constructed at a cost of $2.3 million, the real message is that the cost was not materially different from $2.3 million. This figure is a fair representation of the amount spent, one that can be used in making decisions about the organization's current financial situation as well as its future prospects.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092618.html

Key Takeaway

Financial accounting does not attempt to provide exact numbers because such accuracy is often impossible to achieve and not really required by decision makers. Instead, reported accounting information is intended to provide a likeness of an organization and its operations—a type of portrait. To achieve this goal, the balances and other data cannot contain any material misstatements. A misstatement is inaccurate information reported by accident (an error) or intentionally (fraud). Materiality refers to the point at which the size or the nature of such misstatements would cause a change in the decisions made by an individual using that information. If all material misstatements can be eliminated, interested parties should be able to use the information to make considered decisions.

2.2 Dealing with Uncertainty

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Discuss the challenge created for financial accountants by the presence of uncertainty.
2. List examples of uncertainty that a financial accountant might face in reporting financial information.
3. Explain how financial accounting resembles a language.

Question: Absolute accuracy is not necessary in order to estimate future stock prices, cash dividend payments, and cash flows. Thus, the concept of materiality as a standard guideline in reporting information is obviously quite important. However, financial accounting figures can still be exact. If a cash register is bought for $830.00, the cost is exactly $830.00. Even if not necessary, what prevents reported financial information from being precise?

Answer: In truth, a reasonable percentage of the numbers reported in financial accounting are exact. Materiality is not an issue in such cases. The cash register mentioned here will have a reported cost of $830.00—a precise measure of the amount paid. Likewise, a cash balance shown as $785.16 is exact to the penny. However, many of the other occurrences that must be reported by an organization do not lend themselves to such accuracy.

The primary reason that precision is not a goal—or often not even a possibility—in financial accounting can be summed up in a single word: uncertainty. Many of the events encountered every day by an organization contain some degree of uncertainty. Unfortunately, no technique exists to report uncertain events in precise terms.

When first introduced to financial accounting, many students assume that it is little more than the listing of cash receipts and disbursements in much the same way that elementary school children report how they spent their weekly allowances. That is a misconception. Financial accounting attempts to paint a fairly presented portrait of a company's overall operations, financial condition, and cash flows. This objective includes the reporting of events where a final resolution might not occur for years. Here are just a few examples of the kinds of uncertainty that virtually every business (and financial accountant) faces in reporting financial information.

- A company is the subject of a lawsuit. Perhaps a customer has filed this legal action claiming damage as a result of one of the company's products. Such legal proceedings are exceedingly common and can drag on in the courts for an extended period of time before a settlement is reached. The actual amount won or lost (if either occurs) might not be known for years. What should the company report *now?*
- A sale of merchandise is made today for $300 with the money to be collected from the customer in several months. Until the cash is received, the organization cannot be sure of the exact amount that will be collected. What should the company report *now?*

- An employee is promised a cash bonus next year that will be calculated based on any rise in the market price of the company's capital stock. Until the time passes and the actual increase (if any) is determined, the amount of this bonus remains a mystery. What should the company report *now?*
- A retail store sells a microwave oven today with a warranty. If the appliance breaks at any time during the next three years, the store has to pay for the repairs. No one knows whether the microwave will need to be fixed during this period. What should the company report *now?*

Any comprehensive list of the uncertainties faced regularly by most organizations would require pages to enumerate. Because of the quantity and variety of such unknowns, exact precision simply cannot be an objective of financial reporting. For many accountants, dealing with so much uncertainty is the most interesting aspect of their job. Whenever the organization encounters a situation of this type, the accountant must first come to understand what has taken place and then determine a logical method to communicate a fair representation of that information within the appropriate framework provided by financial accounting. This is surely one of the major challenges of being a financial accountant.

Question: Accounting is sometimes referred to as the "language of business." However, the goal of financial accounting has already been identified as the painting of a fairly presented portrait of an organization. Given the references throughout this chapter to painting, is accounting really a type of language? Is it possible for accounting to paint portraits and be a language?

Answer: The simple answer to this question is that accounting is a language, one that enables an organization to communicate a portrait of its financial health and future prospects to interested parties by using words and numbers rather than oils or watercolors. That language becomes especially helpful when an organization faces the task of reporting complex uncertainties.

Any language, whether it is English, Spanish, Japanese, or the like, has been developed through much use to allow for the effective transfer of information between two or more parties. If a sentence such as "I drive a red car" is spoken, communication occurs but only if both the speaker and the listener have an adequate understanding of the English language. Based solely on these five words, information can be passed from one person to the other. This process succeeds because English (as well as other languages) relies on relatively standardized terminology. Words like "red," "car," and "drive" have defined meanings that the speaker and the listener can each comprehend with a degree of certainty. In addition, grammar rules such as syntax and punctuation are utilized to provide a framework for the communication. Thus, effective communication is possible in a language when (1) set terminology exists and (2) structural rules and principles are applied.

As will be gradually introduced throughout this textbook, financial accounting has its own terminology. Many words and terms (such as "LIFO" and "accumulated depreciation") have very specific meanings. In addition, a comprehensive set of rules and principles has been established over the decades to provide structure and standardization. They guide the reporting process so that the resulting information will be fairly presented and can be readily understood by all interested parties, both inside and outside the organization.

Some students who read this textbook will eventually become accountants. Those individuals must learn the terminology, rules, and principles in order to communicate financial information about an organization that is fairly presented. Other students will become external decision makers. They will make loans, buy stock, grant credit, make employment decisions, provide investment advice, and the like. They will not present financial information with all of its uncertainties but rather make use of it. The more such individuals know about financial accounting terminology, rules, and principles, the more likely it is that they will make appropriate decisions.

To communicate a portrait properly in any language, both the speaker and the listener must understand the terminology as well as the structural rules and principles. That holds even if the language is financial accounting.

Key Takeaway

At any point in time, organizations face numerous uncertain outcomes, such as the settlement of litigation or the collection of a receivable. The conveyance of useful information about uncertain situations goes beyond the simple reporting of exact numbers. To convey a reasonable understanding of such uncertainty, financial accounting must serve as a language. Thus, it will have set terminology and structural rules much like that of any language.

2.3 The Need for Generally Accepted Accounting Principles

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Describe the purpose of U.S. generally accepted accounting principles (U.S. GAAP) and the benefits that these rules provide.
2. Explain the importance of U.S. GAAP to the development of a capitalistic economy.
3. Understand the role played by the Financial Accounting Standards Board (FASB) in the ongoing evolution of U.S. GAAP.
4. Discuss the advantages and the possibility of switching from U.S. GAAP to International Financial Reporting Standards (IFRS).

Question: Rules and principles exist within financial accounting that must be followed. They provide the standard guidance necessary for achieving effective communication. For example, assume that a reporting organization encounters an uncertainty (such as a lawsuit) and is now preparing financial information to portray the reality of that event. When faced with complexity, how does the financial accountant know what reporting guidelines to follow? How does a decision maker looking at reported information know what reporting guidelines have been followed?

Answer: A significant body of **generally accepted accounting principles** (frequently referred to as **U.S**. **GAAP**) has been created in the United States over many decades to provide authoritative guidance and standardization for financial accounting. When faced with a reporting issue, such as a lawsuit, the accountant consults U.S. GAAP to arrive at an appropriate resolution, one that results in fair presentation. If both the accountant and the decision maker understand U.S. GAAP, even the most complex financial information can be conveyed successfully. A proper likeness can be portrayed and communicated.

Thus, the financial information to be distributed by an organization in the form of financial statements is structured according to U.S. GAAP. This textbook is an exploration of those accounting principles that serve as the foundation for financial accounting in this country[1].

Based on coverage here, students who seek to become accountants can learn to report financial information that is fairly presented. That means that it is reported according to U.S. GAAP so that it contains no material misstatements. Students who want to evaluate specific organizations in order to make decisions about them should learn U.S. GAAP in order to understand the data being reported.

Although some elements of U.S. GAAP have been in use almost throughout history, many of these rules and principles are relatively new—often developed within the last twenty to thirty years. Accounting principles evolve quite quickly as the nature of business changes and new issues, problems, and resolutions arise. Fairly important changes in U.S. GAAP occur virtually every year.

The existence of U.S. GAAP means that a business in Seattle, Washington, and a business in Atlanta, Georgia, will account for information in much the same manner[2]. Because of this standardization, any decision maker with an adequate knowledge of financial accounting—whether located in Phoenix, Arizona, or in Portland, Maine—should be able to understand the fairly presented financial information conveyed by a wide variety of companies. They all speak the same language. Put simply, U.S. GAAP enables organizations and other parties to communicate successfully.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092600.html

Question: An article in the Wall Street Journal *contained the following comment about U.S. GAAP: "When the intellectual achievements of the 20th century are tallied, GAAP should be on everyone's Top 10 list. The idea of GAAP—so simple yet so radical—is that there should be a standard way of accounting for profit and loss in public businesses, allowing investors to see how a public company manages its money. This transparency is what allows investors to compare businesses as different as McDonald's, IBM and Tupperware, and it makes U.S. markets the envy of the world*" (Shirky, 2001).

Could U.S. GAAP be so very important? Can the development of U.S. GAAP possibly be one of the ten most important intellectual achievements of the entire twentieth century? A list of other accomplishments during this period would include air travel, creation of computers, landing on the moon, and the development of penicillin. With that level of competition, U.S. GAAP does not seem an obvious choice to be in the top ten. How can it be so important?

Answer: The United States has a capitalistic economy, which means that businesses are (for the most part) owned by private citizens and groups rather than by the government. To operate and grow, these companies must convince investors and creditors to contribute huge amounts of their own money voluntarily. Not surprisingly, such financing is only forthcoming if the possible risks and rewards can be assessed and then evaluated with sufficient reliability. Before handing over thousands or even millions of dollars, investors and creditors must believe that they have the reliable data required to make reasonable estimations of future stock prices, cash dividends, and cash flows. Otherwise, buying stocks and granting credit is no more than gambling. As this quote asserts, U.S. GAAP enables these outside parties to obtain the information they need to reduce their perceived risk to acceptable levels.

Without U.S. GAAP, investors and creditors would encounter significant difficulties in evaluating the financial health and future prospects of an organization[3]. They would face even greater uncertainty and be likely to hold on to their money or invest only in other, safer options. Consequently, if U.S. GAAP did not exist, the development and expansion of thousands of the businesses that have become a central part of today's society would be limited or impossible simply because of the lack of available resources.

By any standard, the explosive development of the U.S. economy during the twentieth century (especially following World War II) has been spectacular, close to unbelievable. This growth has been fueled by massive amounts of money flowing from inside and outside the United States into the country's businesses. Much of the vitality of the U.S. economy results from the willingness of people to risk their money by buying capital stock or making loans to such companies as McDonald's, IBM, and Tupperware. Without those resources, most businesses would be small or nonexistent and the United States would surely be a radically different country.

Question: *If U.S. GAAP is so very important, who creates it? If U.S. GAAP is constantly evolving, how does that occur?*

Answer: Since 1973, the primary authoritative body in charge of producing U.S. GAAP has been the Financial Accounting Standards Board (frequently referred to as FASB)[4]. FASB is an independent group supported by the U.S. government, various accounting organizations, and private businesses. It is charged with establishing and improving the standards by which businesses and not-for-profit organizations (such as charities) produce the financial information that they distribute to decision makers.

Typically, accounting problems arise over time within various areas of financial reporting. New types of financial events can be created, for example, that are not covered by U.S. GAAP or, perhaps, weaknesses in earlier rules start to become evident. If such concerns grow to be serious, FASB will step in and study the issues and alternatives and possibly pass new rules or make amendments to previous ones. FASB is methodical in its deliberations and the entire process can take years. Changes, additions, and deletions to U.S. GAAP are not made without proper consideration.

Several other bodies also play important roles in the creation of U.S. GAAP. They are normally discussed in detail in upper-level accounting textbooks. However, the major authority for the ongoing evolution of U.S. GAAP lies with FASB and its seven-member board. It released approximately 170 official statements during its first thirty-six years of existence. The impact that those rulings—and other types of FASB pronouncements—has had on U.S. GAAP and the financial reporting process is almost impossible to overemphasize. In 2009, FASB combined all authoritative accounting literature into a single source for U.S. GAAP, which is known as the *Accounting Standards Codification*. By bringing together hundreds of official documents, FASB has made U.S. GAAP both more understandable and easier to access. Multiple sources have been woven together in a logical fashion so that all rules on each topic are in one location.

As just one example, FASB recently made a number of critical changes in the method by which businesses report the costs and obligations that arise from certain types of employee pension plans. Previous rules had been the subject of much criticism by the investing community for failing to properly portray the financial impact of such plans. After much discussion, the members of the board came to believe that new rules were needed to improve the method by which organizations reported these obligations to decision makers trying to predict stock prices, cash dividends, and cash flows.

Key Takeaway

No language can enable communication without some standardization and rules. In the United States, this structure is created by U.S. generally accepted accounting principles (U.S. GAAP). The availability of these authoritative guidelines has played a central role in the growth of the U.S. economy since the end of the Great Depression. U.S. GAAP is constantly evolving as accountants seek better methods of providing financial information in an ever-changing business world. The main authority for the development of U.S. GAAP lies with the Financial Accounting Standards Board (FASB). Over the next decade, U.S. GAAP may be replaced by International Financial Reporting Standards (IFRS) to provide consistent accounting and financial reporting around the world.

Talking with an Independent Auditor about International Financial Reporting Standards

Robert A. Vallejo is a partner in the assurance (audit) practice of the public accounting firm PricewaterhouseCoopers (PWC)[5]. From 2006 until 2008, he served as a consulting partner in PWC's national professional services group in Paris, France. He currently works out of the firm's Richmond, Virginia, office, but during his career with that organization, he also served clients in Amsterdam and Philadelphia. Rob is the founder of the Philadelphia Chapter of ALPFA (the Association of Latino Professionals in Finance and Accounting). Because of his years of work in Europe, he has extensive experience implementing International Financial Reporting Standards.

Question: Over the past fifty years or so, the accounting profession in the United States has developed a very comprehensive set of official guidelines referred to collectively as U.S. generally accepted accounting principles. Recently, a strong push has developed to move away from U.S. GAAP and adopt the pronouncements of the International Accounting Standards Board, which are known as International Financial Reporting Standards (IFRS). If U.S. GAAP has worked successfully for so many years, what is the need to abandon it in favor of a new system that is not necessarily well understood in the United States?

Rob Vallejo: Recent economic events have shown how interrelated the world's economies really are. Therefore, it makes common sense that all companies around the world should report their financial information in accordance with the same set of accounting standards. However, the United States is one of the few remaining jurisdictions that has not adopted IFRS. Switching to IFRS in the United States will allow for more comparable financial information across the globe. Another argument in favor of the adoption of IFRS is the complexity of U.S. GAAP. U.S. GAAP is a very rules-based set of standards that has evolved to address the ever-changing business world, creating a maze of standards that is difficult to navigate. IFRS is more principles-based, allowing the preparers of financial information more judgment in applying the standards to a wide variety of situations. Lastly, the U.S. standard setters are very likely to become more involved in the evolution of IFRS so that the U.S. perspective will be appropriately represented.

Question: Rob, at key spots throughout this textbook, you have agreed to help us understand the impact that a change to IFRS will have on financial reporting in the United States. Obviously, the future is always difficult to anticipate with precision. However, what is your best guess as to when IFRS will start to be used in the financial statements issued by U.S. companies? At a basic level, as is appropriate in an introductory financial accounting course, how much real difference will be created by a change from U.S. GAAP to IFRS?

RV: The move to IFRS is being driven by the Securities and Exchange Commission (SEC). In 2008, the SEC published a road map that called for the largest U.S. publicly traded companies to publish their annual results for the year ending December 31, 2014, in accordance with IFRS. In practical terms, this timetable was almost sure to be delayed due to other recent priorities at the SEC having to do with the financial crisis. In February 2010, the SEC decided that IFRS would not be required of U.S. public companies prior to 2015 and, even then, only after additional study. Despite this delay, I believe the switch to IFRS will eventually happen in the United States. In general, the move to IFRS from U.S.

GAAP will not have a substantial impact on the financial information being reported by most companies. However, because of the many subtle differences between IFRS and U.S. GAAP, the preparers of financial information will have a lot of work to do in order to transition their reporting properly. As is the case many times, the devil is in the details.

[1]Many countries other than the United States have developed their own individual systems of generally accepted accounting principles. These alternatives are utilized in specific areas of the world. In addition, international accounting standards (created by the London-based International Accounting Standards Board) known formally as International Financial Reporting Standards, or IFRS, also exist and are now used in numerous countries. U.S. GAAP is by far the most sophisticated system in the world because a significant portion of the capital markets exist here. Unless noted otherwise, U.S. GAAP is being described in this textbook. However, in recent years, a strong push toward universal acceptance of IFRS has taken place. Therefore, their potential impact will be analyzed throughout this book in special discussions of relevant topics.

[2]As will be discussed later in this textbook, key points exist within financial accounting where more than one approach can be used for reporting purposes. Rigid standardization is found in many areas of financial reporting but not in all.

[3]The recent wide-scale financial meltdown in the world economy has put a serious strain on the traditional capitalist model. The U.S. and other governments have had to spend billions of dollars to bail out (and, in some cases, take over) major enterprises. Whether U.S. GAAP could have done a better job to help avoid this calamity will probably not be fully known for years.

[4]Considerable information can be found about the Financial Accounting Standards Board by touring http://www.fasb.org. The tab “About FASB” is especially informative.

[5]The role played in the U.S. economy by public accounting firms will be described in Chapter 6 “Why Should Decision Makers Trust Financial Statements?”. Some of these organizations have grown to enormous size. According to its Web site as of July 9, 2009 (http://www.pwc.com), PricewaterhouseCoopers employs 155,000 individuals working in over 150 countries. During 2008, the firm received in excess of $28 billion from customers for the services it rendered to them.

References

Shirky, C., “How Priceline Became a Real Business,” *Wall Street Journal*, August 13, 2001, A-12.

2.4 Four Basic Terms Found in Financial Accounting

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Define “asset” and provide examples in financial reporting.
2. Define “liability” and provide examples in financial reporting.
3. Define “revenue” and provide examples in financial reporting.
4. Define “expense” and provide examples in financial reporting.

Question: Attaining a thorough understanding of financial accounting and U.S. GAAP is a worthwhile endeavor especially if a person hopes to become successful in analyzing businesses or other organizations. Where should the journey to gain knowledge of financial accounting and its principles begin?

Answer: The study of a language usually starts with basic terminology. That is also an appropriate point of entry for an exploration into financial accounting. Consequently, four fundamental terms will be introduced here. Knowledge of these words is essential to understanding accounting because they serve as the foundation for a significant portion of the financial information provided by any business or other organization.

To illustrate, when examining the 2008 financial statements presented by Safeway Inc. (the large retail grocery store chain), four monetary balances stand out because of their enormous size. As of the end of that year, this corporation reported $17.5 billion in **assets** along with $10.7 billion in **liabilities**. During that year, Safeway generated **revenues** of $44.1 billion and incurred **expenses** of $43.1 billion.

- Assets
- Liabilities
- Revenues
- Expenses

There are thousands of words and concepts found in financial accounting. However, no terms are more crucial to a comprehensive understanding than these four. Almost all discussions concerning financial reporting, whether practical or theoretical, come back to one or more of these words.

Question: The first term presented here is "asset." Is an asset a complicated accounting concept? What general information is conveyed to a decision maker by the term "asset"?

Answer: Simply put, an asset is a future economic benefit that an organization either owns or controls[1]. At the end of 2008, Safeway reported holding over $17.5 billion of these economic benefits. If a customer walks into one of that company's retail stores, many of the assets are easy to spot. The building itself may well be owned by the company and certainly provides a probable future economic benefit by allowing Safeway to display merchandise and make sales. Other visible assets are likely to include cash registers, the cash held in those machines, available merchandise from baby food to broccoli to paper towels (usually referred to as **inventory** in financial accounting), refrigerators, shopping carts, delivery trucks, and the shelves and display cases. Each of those assets will help the company prosper in the future.

Question: All decision makers evaluating the financial health of an organization should be quite interested in learning about its assets because those balances reflect the economic resources held at the present time. This is valuable information. To provide additional clarification, what are the largest assets reported by Safeway?

Answer: As a result of financial reporting, such information is readily available to anyone wanting to learn about virtually any business. At the end of 2008, the following four assets were reported by Safeway as having the highest dollar amounts:

Fixtures and Equipment	$7.8 billion
Buildings	$5.7 billion
Leasehold Improvements[2]	$3.8 billion
Merchandise Inventories	$2.6 billion

The underlying meaning of these four figures will be explained at later points in this textbook.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092633.html

Question: Safeway also reported owing nearly $11 billion in liabilities at the end of 2008. Does this balance reflect the total amount that the company will eventually have to pay to outside parties? Are liabilities the equivalent of monetary debts?

Answer: A more formal definition of a liability is that it is a probable future sacrifice of economic benefits arising from present obligations but, for coverage here, liabilities can certainly be viewed as the debts of the organization.

The $11 billion liability total disclosed by Safeway probably includes (1) amounts owed to the vendors who supply merchandise to the company's stores, (2) notes due to banks as a result of loans, (3) income tax obligations, and (4) balances to be paid to employees, utility companies, advertising agencies, and the like. The amount of such liabilities reported by many businesses can be staggering. Wal-Mart, for example, disclosed approximately $98 billion in liabilities as of January 31, 2009. However, even that amount pales in comparison to the $684 billion liability total reported by General Electric at the end of 2008[3]. To ensure that a fairly presented portrait is being produced, companies such as Safeway and General Electric must make certain that the reported data contain no material misstatements. Thus, all the information that is provided to decision makers about liabilities should be based on the rules and principles to be found in U.S. GAAP.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092634.html

Question: In financial accounting, a company reports its assets, which are future economic benefits, such as buildings, equipment, and cash. Liabilities (debts) are also included in the financial information being disclosed. Both of these terms seem relatively straightforward. The third basic term to be discussed at this time—revenues—is one that initially appears to be a bit less clear. Safeway reported that its stores generated revenues of over $44 billion in 2008 alone. What information is conveyed by a company's revenue balance?

Answer: The term "revenue" is a measure of the financial impact on a company resulting from a particular process. This process is a sale. A customer enters a Safeway grocery store and pays $20 to purchase items, such as cookies, toothpaste, lettuce, and milk. The company receives an asset, possibly a $20 bill. This $20 asset inflow into the company results from a sale and is called revenue. Revenue is *not* an asset; it is a measure of the increase in the company's net assets[4] that results from sales of inventory and services. As will be discussed in more detail in Chapter 3 "In What Form Is Financial Information Actually Delivered to Decision Makers Such as Investors and Creditors?", for reporting purposes, these sales must result from the primary or central operation of the business. Thus, for The Coca-Cola Company, revenues are derived from the sale of soft drinks. Sales resulting from noncentral parts of the company's operations (perhaps the disposal of a piece of land, for example) will be reported in a different manner.

Throughout each day of the year, Safeway makes sales to customers and accepts cash, checks, or credit card payments. The reported revenue figure is merely a total of all sales made during the period, clearly relevant information to any decision maker attempting to determine the financial prospects of this company. During 2008, the multitude of Safeway stores located both inside and outside the United States sold inventory and received over $44 billion in assets in exchange. That is the information communicated by the reported revenue balance. To reiterate, this figure is not exact, precise, accurate, or correct. However, according to the company, it is a fairly presented total determined according to the rules of U.S. GAAP so that it contains no material misstatement.

Any outside party analyzing Safeway should be able to rely on this number with confidence in making possible decisions about the company as a whole.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092619.html

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092620.html

Question: That leaves "expense" as the last of the four basic accounting terms being introduced at this point. Safeway reported $43.1 billion in total expenses during 2008. This figure apparently is essential information that helps paint a proper portrait of the company. What is an expense?

Answer: An expense is an outflow or reduction in net assets[5] that was incurred by an organization in hopes of generating revenues. To illustrate, assume that—at the end of a week—a local business pays its employees $12,000 for the work performed during the previous few days. A $12,000 salary expense must be reported. Cash (an asset) was reduced by that amount and this cost was incurred because the company employed those individuals to help generate revenues. The same general logic can be applied in recording insurance expense, rent expense, advertising expense, utility expense (such as for electricity and water), and many other similar costs.

In some ways, expenses are the opposite of revenues that measure the inflows or increases in net assets created by sales. Expense figures reflect outflows or decreases in net assets incurred in hopes of generating revenues.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092601.html

Question: To reiterate, four terms are basic to an understanding of financial accounting. Almost any coverage of accounting starts with these four. What is the meaning of asset, liability, revenue, and expense?

Answer:

- *Asset*. A future economic benefit owned or controlled by the reporting company, such as inventory, land, or equipment.

- *Liability*. A probable future economic sacrifice or, in simple terms, a debt.
- *Revenue*. A measure of the inflow or increase in net assets generated by the sales made by a company. It is a reflection of the amounts brought into the company by the sales process during a specified period of time.
- *Expense*. A measure of the outflow or reduction in net assets caused by the company's attempt to generate revenues and includes costs, such as rent expense, salary expense, and insurance expense.

Key Takeaway

A strong knowledge of basic accounting terminology is essential for successful communication to take place in the reporting of financial information. Four terms provide a foundational core around which much of the accounting process is constructed. Assets are future economic benefits owned or controlled by an organization. Assets typically include cash, inventory, land, buildings, and equipment. Liabilities are the debts of the reporting entity, such as salary payable, rent payable, and notes payable. Revenue figures indicate the increase in a company's net assets (its assets minus its liabilities) that is created by a sale of goods or services. Revenues are the lifeblood of any organization. Without the inflow of cash or receivables that comes from generating sales, a company cannot exist for long. Expenses are decreases in net assets that are incurred by a company in hopes of generating revenues. Expenses incurred by most companies run a full gamut from rent and salary to insurance and electricity.

Talking with a Real Investing Pro (Continued)

Following is a continuation of our interview with Kevin G. Burns.

Question: Financial accountants tend to place a heavy emphasis on the importance of generally accepted accounting principles (U.S. GAAP) to the world of business. After nearly three decades as an investment advisor, what is your opinion of the relevance of U.S. GAAP?

Kevin Burns: Before the accounting scandals of the late 1990s—such as Enron and WorldCom—financial information that adhered to U.S. GAAP was trusted worldwide. Investors around the globe took comfort in a standard that had such a great reputation for integrity. In the 1990s, though, I felt that U.S. GAAP become somewhat muddied because investors wanted to depend too heavily on one or two figures rather than judging the company as a whole. In the last several years, FASB has moved back to stressing clearer transparency for reported information. That objective enables investors to better see and understand the organization standing behind those statements. That is important in order to maintain investor confidence.

As for the current state of the U.S. GAAP, it is certainly superior to the majority of the world's standards. Unfortunately, it is getting more complicated every year, which is not always a good goal.

Question: Are you bothered by the fact that the financial information that is reported to you by a business is not terribly exact?

KB: No reporting system can ever be exact and many estimates are necessary in reporting any business. Am I bothered by the lack of precision? No, not particularly. I will say, though, that I tend to avoid companies that have an excessive quantity of notes to their financial statements. Many of those companies can be extremely difficult to evaluate because of the complexity of their operations. I prefer businesses where the analysis is a bit simpler and I am able to gain a genuine understanding of what is happening.

Question: When you begin to study the financial data reported by a company that you are analyzing as an investment possibility, which do you look at first: revenues, expenses, assets, or liabilities?

KB: For me, assets have always been the most important determination in the investments that I have chosen. However, that is because I have always been strictly a value investor. There are many different styles of investing. Value investors look at the value of a company's assets and then look for bargains based on current market prices. In comparison, growth investors look at earnings momentum and don't care too much about asset values. They like to see a consistent rise in profitability each year. Over the years, being a value investor has worked well for my clients and me.

Video Clip

" href="http://app.wistia.com/embed/medias/b29d025da7" class="replaced-iframe">(click to see video)

Unnamed Author talks about the five most important points in Chapter 2 "What Should Decision-makers Know So That Good Decisions Can Be Made about an Organization?".

[1]This is an opening chapter in an introductory financial accounting textbook. Definitions are somewhat simplified here so as to be more understandable to students who are just beginning their exploration of accounting. Many terms and definitions will be expanded in later chapters of this textbook or in upper-level accounting courses.

[2]Leasehold improvements represent the remaining cost of any structural changes that were made by the company to improve property that it was only renting and did not own. In many cases, for financing purposes and tax reasons, companies prefer to rent space—for example, in a shopping mall—rather than buy it. While renting, companies often spend significant amounts of money to adapt the facility to their own particular needs. This cost is reported as an asset because the changes will benefit the company in the future. In accounting, this asset is commonly known as a leasehold improvement.

[3]To help fully comprehend the magnitude of the debt owed by General Electric, consider that 684 billion one-dollar bills laid end-to-end would circle Earth at the equator approximately 2,662 times, or about 66 million miles.

[4]"Net assets" is a term that reflects a company's assets less its liabilities. Revenue can also be created by a decrease in a liability rather than an increase in an asset, but that rarely happens in the business world.

[5]An expense can cause a reduction in assets, especially if cash is paid. Frequently, though, an expense creates an increase in liabilities if the cost is incurred but payment has not yet been conveyed. In either case—the reduction of an asset or the creation of a liability—the amount of net assets held by the organization decreases.

2.5 End-of-Chapter Exercises

Questions

1. Why is it acceptable for financial accounting to be imprecise?
2. What is materiality?
3. How is materiality determined?
4. What is a misstatement?
5. When is a misstatement considered fraud?
6. Give three examples of uncertainties faced by businesses.
7. Define “U.S. GAAP.”
8. Why is GAAP so important to the capital market system in the United States?
9. Who creates U.S. GAAP?
10. Define “asset” and give an example of one.
11. Define “liability” and give an example of one.
12. Define “revenue.”
13. Define “expense.”

True or False

1. ____ Most countries require companies to follow U.S. GAAP in preparing their financial statements.
2. ____ Companies face many uncertainties when preparing their financial statements.
3. ____ A liability is defined as a future economic benefit that an organization owns or controls.
4. ____ Creation of U.S. GAAP is primarily done by the U.S. government.
5. ____ In order for investors to evaluate the financial information of a company, it is vital that the financial information be exact.
6. ____ Materiality depends on the size of the organization.
7. ____ Material misstatements made on financial statements are acceptable as long as there are only a few of them.
8. ____ An example of an uncertainty faced by companies in financial statements is a pending lawsuit.
9. ____ Only accountants need to understand the terminology of accounting.
10. ____ An employee is an example of an asset.
11. ____ A sale is usually considered revenue even if cash is not collected.
12. ____ The purchase of a building is recorded as an expense.

13. ____ A deliberate misstatement is known as fraud.

Multiple Choice

1. Which of the following is not an example of an uncertainty companies face in their financial reporting?
    1. Sales that have not yet been collected in cash
    2. Warranties
    3. A loan due to a bank
    4. A lawsuit that has been filed against the company
2. Which of the following is true about U.S. GAAP?
    1. U.S. GAAP has been developed over the past ten years.
    2. U.S. GAAP allows financial statement users to compare the financial information of companies around the world.
    3. U.S. GAAP helps accountants achieve an exact presentation of a company's financial results.
    4. U.S. GAAP helps investors and creditors evaluate the financial health of a company.

   Questions 3, 4, and 5 are based on the following:

   Mike Gomez owns a music store called Mike's Music and More. The store has inventory that includes pianos, guitars, and other musical instruments. Mike rents the building in which his store is located, but owns the equipment and fixtures inside it. Last week, Mike's Music made sales of $3,000. Some of the sales were made in cash. Some were made to customers who have an account with Mike's Music and are billed at the end of the month. Last month, Mike's Music borrowed $10,000 from a local bank to expand.
3. Which of the following is not an asset owned by Mike's Music?
    1. The inventory of musical instruments
    2. The building in which the store is located
    3. The amount owed to Mike's Music by its customers
    4. The equipment and fixtures in the store
4. Which of the following is a liability to Mike's Music?
    1. The loan amount that must be repaid to the bank
    2. The amount owed to Mike's Music by its customers
    3. The sales Mike's Music made last week
    4. The cash collected from customers on the sales made last week
5. Which of the following is a true statement?
    1. Mike's Music is too small for anyone to care about its financial information.
    2. The sales Mike's Music made last week are considered revenue.
    3. The intent of Mike's Music to expand is an asset.

4. The sales Mike's Music made on credit last week cannot be considered revenue.

Problem

Mark each of the following with an (A) to indicate it is an asset, an (L) to indicate it is a liability, an (R) to indicate it is revenue, or an (E) to indicate it is an expense.

1. ____ Cash
2. ____ Building
3. ____ Loan due to the bank
4. ____ Inventory
5. ____ Salary expense
6. ____ Rent expense
7. ____ Amounts owed to employees for work done
8. ____ Equipment
9. ____ Amounts owed to suppliers
10. ____ Sales

Research

1. The chapter introduces the Financial Accounting Standards Board (FASB) as the body that has primary responsibility for determining U.S. GAAP. You can learn more about this organization at http://www.fasb.org. On the menu to the left, click on "Facts about FASB."
    1. How long has FASB been in existence?
    2. From which organization does FASB get its power?
    3. Why do you think it is important that FASB be independent?
    4. What role does the Financial Accounting Foundation play?
    5. Name two current members of FASB.
    6. What is the EITF?
2. Four fundamental accounting terms were introduced in Chapter 2 "What Should Decision-makers Know So That Good Decisions Can Be Made about an Organization?": assets, liabilities, revenues, and expenses. We will explore these items further by examining the financial statements of Starbucks. You can access their financial statements by visiting http://www.starbucks.com. You will need to click "about us" at the top and then "investor relations" on the left. Click on "annual reports" in the menu on the left. Select the 2007 Annual Report—Financials. On the left side menu, select Item 8 (financial statements).
    1. The first page contains a statement showing the revenues and expenses for the year. What is this statement called?

2. What was Starbucks' total net revenue for the year?
3. Based on your understanding of Chapter 2 "What Should Decision-makers Know So That Good Decisions Can Be Made about an Organization?", can you say that this revenue number reported is the exact revenue earned by Starbucks in 2007? If not, what can you say about this revenue number?
4. List two expenses reported by Starbucks.
5. The statement on the next page reports Starbucks' assets and liabilities. What is this statement called?
6. Name two assets and two liabilities reported by Starbucks.

Chapter 3: In What Form Is Financial Information Actually Delivered to Decision Makers Such as Investors and Creditors?

Video Clip

(click to see video)

Joe introduces Chapter 3 “In What Form Is Financial Information Actually Delivered to Decision Makers Such as Investors and Creditors?” and speaks about the course in general.

3.1 The Construction of an Income Statement

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Understand that financial statements provide the structure for companies to report financial information to decision makers.
2. Identify each of the four financial statements typically reported by a company.
3. List the normal contents of an income statement.
4. Define "gains" and "losses" and explain how they differ from "revenues" and "expenses".
5. Explain cost of goods sold.
6. Compute gross profit and the gross profit percentage.
7. Describe the location of income taxes within an income statement.

Question: The revenues, expenses, assets, and liabilities reported by an organization provide data that are essential for decision making. The informational value of these figures enables a thorough analysis of an organization and its financial health and future prospects. How do outsiders learn of these amounts? How are financial data actually conveyed to interested parties? For example, a company such as Marriott International Inc. (the hotel chain) has possibly millions of current and potential shareholders, creditors, and employees. How does such a company communicate vital financial information to all the groups and individuals that might want to make some type of considered evaluation?

Answer: Businesses and other organizations periodically produce financial statements that provide a formal structure for conveying financial information to decision makers. Smaller organizations distribute such statements each year, frequently as part of an annual report prepared by management. Larger companies, like Marriott International, issue yearly statements but also prepare interim statements, usually on a quarterly basis[1]. Regardless of the frequency of preparation, financial statements serve as the vehicle to report all the monetary balances and explanatory information required according to the rules and principles of U.S. generally accepted accounting principles (U.S. GAAP). Based on these standards, such statements are intended as a fairly presented portrait of the organization—one that contains no material misstatements. In simple terms, a company's revenues, expenses, assets, and liabilities are reported to outsiders by means of its financial statements.

Typically, a complete set of financial statements produced by a business includes four separate statements along with comprehensive notes. When studied with knowledge and understanding, a vast array of information becomes available to aid decision makers who want to predict future stock prices, cash dividend payments, and cash flows.

Financial Statements and Accompanying Notes[2]

- **Income statement** (also called a statement of operations or a statement or earnings)[3]
- **Statement of retained earnings** (or the more inclusive statement of stockholders' equity)
- **Balance sheet** (also called a statement of financial position)
- **Statement of cash flows**

The four financial statements prepared by Marriott International as of January 2, 2009, and the year then ended were presented in just four pages of its annual report (pages forty-three through forty-six) whereas the notes accompanying those statements made up the next twenty-seven pages. Although decision makers often focus on a few individual figures found in financial statements, the vast wealth of information provided by the notes should never be ignored.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092635.html

Question: Assume that a financial investor is analyzing the latest income statement prepared by a company in hopes of deciding whether to buy its capital stock or, possibly, loan money to the company. Or, perhaps, a current employee must decide whether to stay with the company or take a job offer from another organization. Both of these individuals want to assess the company's financial health and future prospects. Certainly, all the available financial statements need to be studied but, initially, this person is looking at the income statement. What types of financial data will be available on a typical income statement such as might be produced by a business like IBM, Apple, Papa John's, or Pizza Hut?

Answer: The main content of an income statement is rather straightforward: a listing of all revenues earned and expenses incurred by the reporting organization during the period specified. As indicated previously in Chapter 2 "What Should Decision-makers Know So That Good Decisions Can Be Made about an Organization?", revenue figures disclose increases in net assets (assets minus liabilities) that were created by the sale of goods or services resulting from the primary operations of the organization. For IBM, revenues are derived from the sale and servicing of computers and the like (a total of nearly $104 billion in 2008) while, for Papa John's International, the reported revenue figure (a bit over $1.1 billion) measures the sale of pizzas and related items.

Conversely, expenses are decreases in net assets incurred by a reporting company in hopes of generating revenues. For example, salaries paid to sales people for the work they have done constitute an expense. The cost of facilities that have been rented is also an expense as is money paid for utilities, such as electricity, heat, and water.

For example, IBM reported selling, general, and administrative expenses for 2008 of $23.4 billion. That was just one category of its expenses disclosed within the company's income statement[4]. During the same period, Papa

John's reported salaries and benefits as an expense for its domestic company-owned restaurants of $158.3 million. Financial accounting focuses on providing information about an organization and both of these figures should help decision makers begin to glimpse a portrait of the underlying company. Accounting is often said to provide transparency—the ability to see straight through the words and numbers to gain a vision of the company and its operations.

Question: *Is nothing else presented on an income statement other than revenues and expenses?*

Answer: An income statement also reports gains and losses for the same period of time. A gain is an increase in the net assets of an organization created by an occurrence outside its primary or central operations. A loss is a decrease in net assets from a similar type of incidental event.

When Apple sells a computer to a customer, it reports revenue but if the company disposes of a piece of land adjacent to a warehouse, it reports a gain (if sold above cost) or a loss (if sold below cost). Selling computers falls within Apple's primary operations whereas selling land does not. If Pizza Hut sells a pepperoni pizza, the transaction brings in assets. Revenue has been earned and should be reported. If this same company disposes of one of its old stoves, the result is reflected as either a gain or loss. Pizza Hut is not in the business of selling appliances. This classification split between revenues/expenses and gains/losses helps provide decision makers with a clearer portrait of what actually happened to the company during the reporting period.

An example of an income statement for a small convenience store is shown in Figure 3.1 "Income Statement". Note that the name of the company, the identity of the statement, and the period of time reflected are apparent. Although this is only an illustration, it is quite similar to the income statements created by virtually all business organizations in the United States and many other countries.

Figure 3.1 Income Statement

Davidson Groceries Income Statement for Year Ended December 31, 2XX4		
Revenues:		
Sales of groceries		$1,400,000
Expenses:		
Cost of goods sold	$900,000	
Salary	120,000	
Rent	20,000	
Advertising	30,000	
Insurance	15,000	
Others	25,000	
Total Expenses		(1,110,000)
Operating income		290,000
Other gains and losses:		
Gain on sale of delivery truck	5,000	
Loss on sale of land behind building	(15,000)	(10,000)
Income before income taxes		280,000
Income tax expense		(50,000)
Net income		$230,000

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092602.html

Question: A review of this sample income statement raises a number of questions. The meaning of balances such as salary expense, rent expense, advertising expense, and the like are relatively clear. These figures measure specific outflows or decreases in the company's net assets that were incurred in attempting to generate revenue. However, the largest expense reported on this income statement is called cost of goods sold. What does the $900,000 cost of goods sold figure represent?

Answer: This convenience store generated sales of $1.4 million in Year 2XX4. Customers came in during that period of time and purchased merchandise at its sales price. That is the first step in the sale and is reflected within the revenue balance. The customers then took these goods with them and left the store; this merchandise no longer belongs to Davidson Groceries. In this second step, a decrease occurred in the company's net assets. Thus, an expense has occurred. As the title implies, "cost of goods sold" (sometimes referred to as "cost of sales") is an expense reflecting the cost of the merchandise that a company's customers purchased during the period. It is the amount that Davidson paid for inventory items, such as apples, bread, soap, tuna fish, and cheese, that were then sold.

Note that the timing of expense recognition is not tied to the payment of cash but rather to the loss of the asset. As a simple illustration, assume Davidson Groceries pays $2 in cash for a box of cookies on Monday and then sells it to a customer for $3 on Friday. The income statement will show revenue of $3 (the increase in the net assets created by the sale) and cost of goods sold of $2 (the decrease in net assets resulting from the sale). Both the revenue and the related expense are recorded on Friday when the sale took place and the inventory was removed.

The difference in revenue and cost of goods sold is often referred to as the company's **gross profit**, **gross margin**, or **markup**. It is one of the reported figures studied carefully by decision makers. For this year, Davidson Groceries earned a gross profit of $500,000 ($1.4 million in revenues less $900,000 cost of goods sold). Its gross profit was 35.7 percent of sales ($500,000/$1.4 million).

For the year ending January 30, 2009, Lowe's Companies Inc., the home improvement company, reported net sales revenues of $48.2 billion along with cost of sales of $31.7 billion. Thus, Lowe's earned a gross margin (the company's term) during that period of $16.5 billion. Sales of merchandise ($48.2 billion) exceeded the cost of those same goods ($31.7 billion) by that amount. Its gross profit percentage was 34.2 percent ($16.5 million/$48.2 million). Any potential investor or creditor will find such numbers highly informative especially when compared with the company's prior years or with competing enterprises. For example, for the year ending February 1, 2009, the Home Depot Inc., a major competitor of Lowe's Companies, reported net sales of $71.3 billion, cost of sales of $47.3 billion, and gross profit (the company's term) of $24.0 billion. Its gross profit percentage was 33.7 percent ($24.0 million/$71.3 million). Such information allows decision makers to compare these two companies and their operations.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092636.html

Question: In Figure 3.1 "Income Statement", revenues and expenses are listed first to arrive at an operating income figure. That is followed by gains and losses. This sequencing is appropriate since revenues and expenses relate to the primary or central operations of the business and gains and losses are created by more incidental events. Why then is income tax expense listed last, by itself, on the income statement and not with the other expenses?

Answer: State and federal income taxes cost businesses in the United States considerable sums of money each year. Exxon Mobil Corporation reported income taxes of $36.5 billion at the bottom of its 2008 income statement. The income tax figure is segregated in this manner because it is not an expense in a traditional sense. As previously described, an expense—like cost of goods sold, advertising, or rent—is incurred in order to generate revenues. Income taxes do not create revenues at all. Instead, they are caused by the company's revenues and related profitability. Although referring to income taxes as an expense is common, probably a more apt title is "income taxes assessed by government." The financial impact is the same as an expense (an outflow or decrease in net assets); thus, "income tax expense" is often used for labeling purposes. However, because the nature of this "expense" is different, the reported income tax figure is frequently isolated at the bottom of the income statement, separate from true expenses.

Key Takeaway

Financial information can be gathered about an organization but the resulting figures must then be structured in some usable fashion to be conveyed to interested decision makers. Financial statements serve this purpose. A typical set of financial statements is made up of an income statement, statement of retained earnings, balance sheet, statement of cash flows, and explanatory notes. The income statement reports revenues from sales of goods and services as well as expenses such as rent expense and cost of goods sold. Gains and losses that arise from incidental activities of a company are also included on the income statement but separately so that the income generated from primary operations is apparent. Income tax expense is reported at the bottom of the income statement because it is actually a government assessment rather than a true expense.

[1]Financial statements for many of the businesses that have their capital stock traded publicly on stock exchanges are readily available on corporate Web sites. For example, the statements released by Marriott International can be located through the following path. The financial statements issued by most large companies will be found by using similar steps.• Go to http://www.marriott.com.• Click on "About Marriott" (probably at the bottom of the homepage).• Click on "Investor Relations."• Click on "Financial Information."• Click on "Financial Reports & proxy."• Click on "Annual Report" (for the year desired).

[2]Because the final figures derived on the income statement and the statement of retained earnings are necessary to produce other statements, the preparation of financial statements is carried out in the sequential order shown here.

[3]As will be discussed in a later chapter of this textbook, a statement of comprehensive income is also sometimes required to be attached to or presented with an income statement.

[4]Financial information reported by large publicly traded companies tends to be highly aggregated. Thus, the expense figure shown by IBM is a summation of many somewhat related expenses. Those individual balances would be available within the company for internal decision making.

3.2 Reported Profitability and the Principle of Conservatism

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Describe the method used to differentiate assets from expenses.
2. Discuss the rationale for the principle of conservatism and its effect on financial reporting.
3. Explain the reason dividend distributions are not reported within net income.
4. Discuss the need to study an entire set of financial statements rather than focus in obsessively on one or two numbers such as net income.

Question: Previously, the term "asset" was defined as a future economic benefit owned or controlled by a reporting company. On an income statement, items such as rent and advertising are listed as expenses. Why are such costs not grouped with the assets on the balance sheet? For example, the rent paid for a building could provide a probable future economic benefit for the reporting organization but it is included in *Figure 3.1 "Income Statement"* *as an expense. The same is true for advertising. How does a company determine whether a cost represents an asset or an expense?*

Answer: Drawing a distinction that allows a cost to be classified as either an asset or an expense is not always easy for an accountant. If a company makes a $1,000 rent payment, an expense might have been incurred because an outflow of an asset has taken place. However, the cost of this rent could also be shown on the balance sheet as an asset if it provides future economic benefits.

A cost is identified as an asset if the benefit clearly has value in generating *future* revenues for the company whereas an expense is a cost that has already helped earn revenues in the *past*.

With an asset, the utility will be consumed in the year. With an expense, the utility has already been consumed. To illustrate, assume that on December 31, Year One, a company pays $1,000 for rent on a building used during the previous month. The benefit gained from occupying that space has already occurred. Use of the building helped the company generate revenue during December. The outflow of this money is reflected on the income statement as a rent expense. The benefit is now in the past.

If on that same day, another $1,000 is paid to rent this building again during the upcoming month of January Year Two, the acquired benefit relates directly to the future. Until consumed, this second cost should be shown on the balance sheet as a $1,000 asset (referred to as prepaid rent).

- *Expense*. Cost that helped generate revenues in the past.

- *Asset*. Cost expected to help generate revenues in the future.

When a cost is incurred, the accountant must investigate to determine when the related benefit is expected. This timing—which is guided by U.S. GAAP—indicates whether an asset should be recognized (shown on the balance sheet) or an expense (reported on the income statement).

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092637.html

Question: A business or other organization can face many complicated situations. At times, the decision as to whether a specific cost will generate revenue in the future (and is reported as an asset) or has already helped create revenue in the past (an expense) is difficult. When an accountant encounters a case that is "too close to call," what reporting is appropriate? For example, assume that a company has agreed to pay $24,000 but officials cannot ascertain the amount of the related benefit that has already occurred versus the amount that will take place in the future. When delineation between an asset and an expense appears to be impossible, what is reported?

Answer: Being an accountant is a relatively easy job when financial events are distinct and clearly understood. Unfortunately, in real life, situations often arise where two or more outcomes seem equally likely. The distinction raised in this question between an asset and an expense is simply one of numerous possibilities where multiple portraits could be envisioned. At such times, financial accounting has a long history of following the **principle of conservatism**.

The conservative nature of accounting influences many elements of U.S. GAAP and must be understood in order to appreciate the meaning of the financial information that is conveyed about an organization. Simply put, conservatism holds that whenever an accountant faces two or more *equally likely* possibilities, the one that makes the company look worse should be selected. In other words, financial accounting attempts to ensure that a reporting organization never looks significantly better than it actually is.

If a cost has been incurred that might have either a future value (an asset) or a past value (an expense), the accountant always reports the most likely possibility. That is the only appropriate way to paint a portrait of an organization that is the fairest representation. However, if neither scenario appears more likely to occur, the cost is classified as an expense rather than an asset because of the principle of conservatism. Reporting a past benefit rather than a future benefit has a detrimental impact on the company's appearance to an outside party. This handling reduces the reported net income as well as the amount shown as the total of the assets.

The principle of conservatism can be seen throughout financial accounting. When the chance of two possibilities is the same, accounting prefers that the more optimistic approach be avoided.

Question: *Why does conservatism exist in financial accounting? Companies must prefer to look as successful as possible. Why does a bias exist for reporting outcomes in a negative way?*

Answer: Accountants are well aware that the financial statements they produce are relied on by decision makers around the world to determine future actions that will place monetary resources at risk. For example, if a company appears to be prosperous, an investor might decide to allocate scarce cash resources to obtain shares of its capital stock. Similarly, a creditor is more willing to make a loan to a company that seems to be doing well economically.

Such decision makers face potential losses that can be significant. Accountants take their role in this process quite seriously. As a result, financial accounting has traditionally held that the users of financial statements are best protected if the reporting process is never overly optimistic in picturing an organization's financial health and future prospects. Money is less likely to be lost if the accountant paints a portrait that is no more rosy than necessary. The practice of conservatism is simply an attempt by financial accounting to help safeguard the public.

The problem that can occur when a company appears excessively profitable can be seen in the downfall of WorldCom where investors and creditors lost billions of dollars. A major cause of this accounting scandal, one of the biggest in history, was the fraudulent decision by members of the company's management to record a cost of nearly $4 billion as an asset rather than as an expense. Although any future benefit resulting from these expenditures was highly doubtful, the cost was reported to outsiders as an asset. Conservatism was clearly not followed.

Consequently, in its financial statements, WorldCom appeared to have more assets and be much more profitable than was actually the case. Investors and creditors risked their money based on the incorrect information they had received. Later, in 2002, when the truth **was** discovered, the stock price plummeted and the company went bankrupt. Even if the decision had been close as to whether these costs represented assets or expenses, the practice of conservatism would have dictated the need to record them as expenses to prevent an overly optimistic picture of the company and its financial health.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092638.html

Question: Previously, the term "dividends" was introduced and discussed. Dividend distributions reduce the net assets of a company. In Figure 3.1 "Income Statement", a number of expenses are listed but no dividends are mentioned. Why are dividend payments not included as expenses on an income statement?

Answer: Dividends are not expenses and, therefore, must be omitted in creating an income statement. Such payments obviously reduce the amount of net assets owned or controlled by a reporting company. However, they are not related in any way to generating revenues. A dividend is a reward distributed by a company (through the decision of its board of directors) to the owners of its capital stock. Thus, a dividend is a sharing of profits and not a cost incurred to create revenues.

In Figure 3.1 “Income Statement”, Davidson Groceries reports net income for the year of $230,000. The board of directors might look at that figure and opt to make a cash dividend distribution to company owners. That is one of the most important decisions for any board. Such payments usually please the owners but reduce the size of the company and—possibly—its future profitability.

An income statement reports revenues, expenses, gains, and losses. Dividend distributions do not qualify and must be reported elsewhere in the company’s financial statements.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092622.html

Question: The final figure presented on the income statement is net income. This balance reflects the growth in a company’s net assets during the period resulting from all revenues, expenses, gains, and losses. In evaluating the operations of any company, that figure seems to be incredibly significant. It reflects the profitability for the period. Is net income the most important number to be found in a set of financial statements?

Answer: The net income figure reported for any business organization is an eagerly anticipated and carefully analyzed piece of financial information. It is the most discussed number disclosed by virtually any company. However, financial statements present a vast array of data and the importance of one balance should never be overemphasized. A portrait painted by an artist is not judged solely by the small section displaying the model’s ear but rather by the representation made of the entire person. Likewise, only the analysis of all information conveyed by a complete set of financial statements enables an interested party to arrive at the most appropriate decisions about an organization.

Some creditors and investors seek shortcuts when making business decisions rather than doing the detailed analysis that is appropriate. Those individuals often spend an exorbitant amount of time focusing on reported net income. Such a narrow view shows a fundamental misunderstanding of financial reporting and the depth and breadth of the information being conveyed. In judging a company’s financial health and future prospects, an evaluation should be carried out on the entity as a whole. Predicting stock prices, dividends, and cash flows requires a complete investigation. That is only possible by developing the capacity to work with all the data presented in a set of financial statements. If a single figure could be used reliably to evaluate a business organization, creditors and investors would never incur losses.

Key Takeaway

Conservatism is an often misunderstood term in financial reporting. Despite a reputation to the contrary, financial accounting is not radically conservative. However, when two reporting options are equally likely, the one that makes the company look best is avoided. In that way, the portrait created of a company is less likely to be overly optimistic so that decision makers are protected. Losses are less likely to occur. For example, expenses refer to costs that had value in the past while assets reflect future economic benefits. If this distinction cannot be drawn for a particular cost, it should be reported as an expense. That assignment reduces both reported income and assets. The resulting net income figure is useful in evaluating the financial health and prospects of a company but no single figure should be the sole source of information for a decision maker.

3.3 Increasing the Net Assets of a Company

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Define "retained earnings" and explain its composition.
2. Define "capital stock" and explain the meaning of its reported account balance.
3. Understand the lack of financial impact that the exchange of ownership shares between investors has on a company.

Question: The second financial statement is known as the statement of retained earnings[1].The term retained earnings has not yet been introduced. What information does a retained earnings balance communicate to an outside decision maker? For example, on January 31, 2009, Barnes & Noble reported retained earnings of nearly $721 million, one of the larger amounts found in the company's financial statements. What does that figure tell decision makers about this bookstore chain?

Answer: Retained earnings is one of the most misunderstood accounts in all of financial reporting. In simplest terms, this balance is merely the total amount of net income reported by a company since it first began operations, less all dividends paid to stockholders during that same period. Thus, the figure provides a measure of the profits left in a business throughout its history to create growth.

Figure 3.2

Total net income since organization began operations
Less: total of all dividends paid to owners

Retained earnings balance

When a company earns income, it becomes larger because net assets have increased. Even if a portion of the profits is later distributed to shareholders as a dividend, the company has grown in size as a result of its own operations. The retained earnings figure informs decision makers of the amount of that internally generated expansion. The reported balance answers the question: How much of the company's net assets have been derived from operations during its life?

If a company reports net income of $10,000 each year and then pays a $2,000 dividend to its owners, it is growing in size at the rate of $8,000 per year. After four years, for example, $32,000 ($8,000 × four years) of its net assets were generated by its own operating activities. That information is communicated through the retained earnings balance.

As of January 31, 2009, Barnes & Noble reported total assets of $3.0 billion and liabilities of $2.1 billion. Thus, the company had net assets of $900 million. It held that many more assets than liabilities. Those additional assets did not appear by magic. They had to come from some source. One of the primary ways to increase the net assets of a company is through profitable operations. The balance for retained earnings shown by Barnes & Noble at this time lets decision makers know that approximately $721 million of its net assets were generated by the net income earned since the company's inception, after all dividend distributions to shareholders were subtracted.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092623.html

Question: In Figure 3.1 "Income Statement", Davidson Groceries calculated its net income for 2XX4 as $230,000. Assume that this company began operations on January 1, 2XX1, and reported the following balances over the years:

Figure 3.3

Year	Reported Net Income	Dividends Distributed	Growth in Company (income minus dividends)
Past Years			
2XX1	$140,000	$50,000	$90,000
2XX2	180,000	70,000	110,000
2XX3	210,000	90,000	120,000
Totals	$530,000	$210,000	$320,000
Current Year			
2XX4	$230,000	$100,000	$130,000

How is this information reported?
What is the structure of the statement of retained earnings as it appears within a company's financial statements?

Answer: In its three prior years of existence, Davidson Groceries' net assets increased by a total of $320,000 as a result of its operating activities. As can be seen here, the company generated total profit during this period of $530,000 while distributing dividends to shareholders amounting to $210,000, an increase of $320,000. Net assets rose further during the current year (2XX4) as Davidson Groceries made an additional profit (see also Figure 3.1 "Income Statement") of $230,000 but distributed $100,000 in dividends.

Figure 3.4 "Statement of Retained Earnings" shows the format by which this information is conveyed to the decision makers who are evaluating Davidson Groceries.

Figure 3.4 Statement of Retained Earnings

Davidson Groceries Statement of Retained Earnings for Year Ended December 31, 2XX4		
Retained earnings balance, January 1, 2XX4		$320,000
Net income reported for 2XX4	$230,000	
Dividents distributed during 2XX4	100,000	
Net income less dividends for 2XX4		130,000
Retained earnings balance, December 31, 2XX4		$450,000

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092624.html

Question: In the information given about Barnes & Noble, the company reported holding net assets of $900 million but only about $721 million of that amount was generated through operations as shown by its retained earnings balance. Clearly, additional sources must have helped the company attain its growth in size. Increases in net assets of a company are not the result of magic or miracles. Other than through operations, how else does a company derive its net assets?

Answer: Beyond operations (as reflected by the retained earnings balance), a company accumulates net assets by receiving contributions from its owners in exchange for capital stock[2]. This is the other major method by which Barnes & Noble was able to gather its $900 million in net assets. On a balance sheet, the measure of this inflow is usually labeled something like **capital stock**, **common stock**, or **contributed capital**. The reported amount indicates the portion of the net assets that came into the business directly from stockholders.

The amount of a company's net assets is the excess of its assets over its liabilities. Two reported balances indicate the primary source of those net assets:

- *Capital stock (or contributed capital)*. The amount invested in the business by individuals and groups in order to become owners. For example, as of December 31, 2008, Motorola Inc. reported having received a total of approximately $7.8 billion from its shareholders since its inception.
- **Retained earnings**. All the net income earned by the organization over its life less amounts distributed as dividends to owners. On December 31, 2008, Google Inc. reported a retained earnings balance of $13.6 billion (up over $4 billion in just one year).

Companies that seek to grow must be able to generate resources from owners, operations, or both.

Question: A corporation issues (sells) ownership shares to investors. The source of the resulting inflow of assets into the business is reflected on its balance sheet by the reporting of a capital stock (or contributed capital) balance. Thus, over its life, Motorola has received assets of $7.8 billion from stockholders in exchange for capital stock. Does the company receive money in this way when shares are sold each day on the New York Stock Exchange, NASDAQ (National Association of Securities Dealers Automated Quotation Service), or other stock exchanges?

Answer: No, purchases and sales on stock markets normally occur between investors and not with the company. Only the initial issuance of the ownership shares to a stockholder creates the inflow of assets reported by the company's capital stock or contributed capital account.

To illustrate, assume that Investor A buys capital stock shares directly from Business B for $179,000 in cash. This transaction increases the net assets of Business B by that amount. The source of the increase is communicated to decision makers by adding $179,000 to the capital stock balance reported by the company. Subsequently, these shares may be exchanged between investors numerous times without any additional financial impact on Business B. For example, assume Investor A later sells the shares to Investor Z for $200,000 using a stock market such as the New York Stock Exchange. Investor A earns a $21,000 gain ($200,000 received less $179,000 cost) and Investor Z has replaced Investor A as an owner of Business B. However, the financial condition of the company has not been affected by this new exchange. Thus, the capital stock balance only measures the initial investment contributed directly to the business.

Key Takeaway

The source of a company's net assets (assets minus liabilities) is of interest to outside decision makers. The reported retained earnings figure indicates the amount of these net assets that came from the operations of the company. This growth in size was internally generated. Retained earnings is all the net income earned since operations began less all dividend distributions. Net assets can also be derived from contributions to the company made by parties seeking to become owners. The capital stock (or contributed capital) balance measures this source of net assets. To impact the company, the assets must come directly from the owners. Hence, exchanges between investors on a stock exchange do not affect the company's net assets or its financial reporting.

[1]As indicated earlier, many companies actually report a broader statement of changes in stockholders' equity to present details on all the accounts appearing in the stockholders' equity section of the balance sheet. At this initial point in the coverage, focusing solely on retained earnings makes the learning process easier.

[2]As with many aspects of the coverage at this introductory stage, other events can also impact the reported total of a company's net assets and will be discussed in later chapters. The two sources here—capital stock and retained earnings—are shown by all corporations and are normally significantly large amounts.

3.4 Reporting a Balance Sheet and a Statement of Cash Flows

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. List the types of accounts presented on a balance sheet.
2. Explain the difference between current assets and liabilities and noncurrent assets and liabilities.
3. Calculate working capital and the current ratio.
4. Provide the reason for a balance sheet to always balance.
5. Identify the three sections of a statement of cash flows and explain the types of events included in each.

Question: The third financial statement is the balance sheet. If a decision maker studies a company's balance sheet (on its Web site, for example), what information can be discovered?

Answer: The primary purpose of a balance sheet is to report an organization's assets and liabilities at a particular point in time. The format is quite simple. All assets are listed first—usually in order of liquidity[1]—followed by the liabilities. A picture is provided of each future economic benefit owned or controlled by the company (its assets) as well as its debts (liabilities).

A typical balance sheet is reported in Figure 3.5 "Balance Sheet" for Davidson Groceries. Note that the assets are divided between current (those expected to be used or consumed within the next year) and noncurrent (those expected to remain within the company for longer than a year). Likewise, liabilities are split between current (to be paid during the next year) and noncurrent (not to be paid until after the next year). This labeling aids financial analysis because Davidson Groceries' current liabilities ($57,000) can be subtracted from its current assets ($161,000) to arrive at a figure often studied by interested parties known as working capital ($104,000 in this example). The current assets can also be divided by current liabilities ($161,000/$57,000) to determine the company's current ratio (2.82 to 1.00), another figure calculated by many decision makers as a useful measure of short-term operating strength.

The balance sheet shows the company's financial condition on one specific date. All the other financial statements report events occurring over a period of time (often a year or a quarter). The balance sheet discloses assets and liabilities as of the one specified date.

Figure 3.5 Balance Sheet[2]

Davidson Groceries Balance Sheet, December 31, 2XX4		
Assets		
Current Assets		
Cash	$22,000	
Accounts Receivable	24,000	
Inventory	103,000	
Prepaid Rent	12,000	
Total Current Assets		$161,000
Noncurrent Assets		
Land	210,000	
Equipment (net)	155,000	
Buildings (net)	680,000	
Total Noncurrent Assets		1,045,000
Total Assets		$1,206,000
Liabilities and Stockholders' Equity		
Liabilities		
Current Liabilities		
Accounts Payable	$33,000	
Salaries Payable	9,000	
Insurance Payable	15,000	
Total Current Liabilities		$57,000
Noncurrent Liabilities		
Note Payable—Third National Bank	300,000	
Note Payable—State Bank	220,000	
Total Current Liabilities		520,000
Total Liabilities		$577,000
Stockholders' Equity		
Capital Stock	$179,000	
Retained Earnings	450,000	
Total Stockholders' Equity		$629,000
Total Liabilities and Stockholders' Equity		$1,206,000

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092603.html

Question: Considerable information is included on the balance sheet presented in Figure 3.5 "Balance Sheet". Assets such as cash, inventory, and land provide future economic benefits for a company. Liabilities for salaries, insurance, and the like reflect debts that are owed at the end of year. The $179,000 capital stock figure indicates the amount of assets that the original owners contributed to the business. The retained earnings balance of $450,000 was computed earlier in Figure 3.4 "Statement of Retained Earnings" and identifies the portion of the net assets generated by the company's own operations over the years. For convenience, a general term such as "stockholders' equity" or "shareholders' equity" encompasses the capital stock and the retained earnings balances.

Why does the balance sheet balance? This agreement cannot be an accident. The asset total of $1,206,000 is exactly the same as the liabilities ($577,000) plus the two stockholders' equity accounts ($629,000—the total of capital stock and retained earnings). Thus, assets equal liabilities plus stockholders' equity. What creates that equilibrium?

Answer: The balance sheet will always balance unless a mistake is made. This is known as the **accounting equation**:

assets = liabilities + stockholders' equity.

Or if the stockholders' equity account is broken down into its component parts,

assets = liabilities + capital stock + retained earnings.

This equation stays in balance for one simple reason: assets must have a source. If a business or other organization has an increase in its total assets, that change can only be caused by (a) an increase in liabilities such as money being borrowed, (b) an increase in capital stock such as additional money being contributed by stockholders, or (c) an increase created by operations such as a sale that generates a rise in net income. There are no other ways to increase assets.

One way to understand the accounting equation is that the left side (the assets) presents a picture of the future economic benefits that the reporting company holds. The right side provides information to show how those assets were derived (from liabilities, from investors, or from operations). Because no assets are held by a company without a source, the equation (and, hence, the balance sheet) must balance.

assets = the total source of those assets

Question: The final financial statement is the statement of cash flows. Cash is so important to an organization and its financial health that a complete statement is devoted to presenting the changes that took place in that asset. As can be determined from the title, this statement provides a picture of the various ways in which the company generated cash during the year and the uses that were made of it. How is the statement of cash flows structured?

Answer: Outside decision makers place considerable emphasis on a company's ability to create significant cash inflows and then wisely apply that money. Figure 3.6 "Statement of Cash Flows" presents an example of that information in a statement of cash flows for Davidson Groceries for the year ended December 31, 2XX4. Note that all the cash changes are divided into three specific sections: **operating activities**, **investing activities**, and **financing activities**.

Figure 3.6 Statement of Cash Flows[3]

Davidson Groceries Statement of Cash Flows for Year Ended December 31, 2XX4		
Cash Flows from Operating Activities		
Cash Collected from Customers	$1,075,000	
Cash Paid for Inventory	(420,000)	
Cash Paid for Salaries	(208,000)	
Cash Paid for Rent	(95,000)	
Cash Paid for Advertising	(81,000)	
Cash Paid for Insurance	(57,000)	
Cash Paid for Income Taxes	(52,000)	
Total Cash Inflow from Operating Activities		$162,000
Cash Flows from Investing Activities		
Cash Received from Sale of Delivery Truck	26,000	
Cash Received from Sale of Land	75,000	
Cash Paid in Purchase of Building	(300,000)	
Total Cash Outflow from Investing Activities		(199,000)
Cash Flows from Financing Activities		
Cash Paid to Owners as Dividends	(100,000)	
Cash Received from Bank on a Loan	120,000	
Total Cash Inflow from Financing Activities		20,000
Cash Reduction During Year		(17,000)
Cash Balance—January 1, 2XX4		39,000
Cash Balance—December 31, 2XX4		$22,000

Question: In studying the statement of cash flows, a company's individual cash flows relating to selling inventory, advertising, selling land, buying a building, paying dividends, and the like can be readily identified. For example, when the statement indicates that $120,000 was the "cash received from bank on a loan," a decision maker should have a clear picture of what happened. There is no mystery.

All the cash flows are divided into one of the three categories:

1. *Operating activities*
2. *Investing activities*
3. *Financing activities*

How are these distinctions drawn?
On a statement of cash flows, what is the difference in an operating activity, an investing activity, and a financing activity?

Answer: Cash flows listed as operating activities relate to receipts and disbursements that arose in connection with the central activity of the organization. For Davidson Groceries, these cash changes resulted from the daily operations carried out by the convenience store and include selling goods to customers, buying merchandise, paying salaries to employees, and the like. This section of the statement shows how much cash the primary function of the business was able to generate during this period of time, a figure that is watched closely by many financial analysts. Eventually, a company is only worth the cash that it can create from its operations.

Investing activities report cash flows from events that (1) are separate from the central or daily operations of the business and (2) involve an asset. Thus, the amount of cash collected when either equipment or land is sold is reported within this section. A convenience store does not participate in such transactions as a regular part of operations and both deal with an asset. Cash paid to buy a building or machinery will also be disclosed in this same category. Such purchases do not happen on a daily operating basis and an asset is involved.

Like investing activities, the third section of this statement—cash flows from financing activities—is unrelated to daily business operations but, here, the transactions relate to either a liability or a stockholders' equity balance. Borrowing money from a bank meets these criteria as does distributing a dividend to shareholders. Issuing stock to new owners for cash is another financing activity as is payment of a noncurrent liability.

Any decision maker can review the cash flows of a business within these three separate sections to receive a picture of how company officials managed to generate cash during the period and what use was made of it.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092604.html

Key Takeaway

The balance sheet is the only financial statement created for a specific point in time. It reports a company's assets as well as the source of those assets: liabilities, capital stock, and retained earnings. Assets and liabilities are divided between current and noncurrent amounts, which permits the company's working capital and current ratio to be computed for analysis purposes. The statement of cash flows explains how the company's cash balance changed during the year. All cash transactions are classified as falling within operating activities (daily activities), investing activities (nonoperating activities that affect an asset), or financing activities (nonoperating activities that affect either a liability or a stockholders' equity account).

Talking with a Real Investing Pro (Continued)

Following is a continuation of our interview with Kevin G. Burns.

Question: Warren Buffett is one of the most celebrated investors in history and ranks high on any list of the richest people in the world. When asked how he became so successful at investing, Buffett answered quite simply: “We read hundreds and hundreds of annual reports every year[4].”

Annual reports, as you well know, are the documents that companies produce each year containing their latest financial statements. You are an investor yourself, one who provides expert investment analysis for your clients. What is your opinion of Mr. Buffett’s advice?

Kevin Burns: Warren Buffet—who is much richer and smarter than I am—is correct about the importance of annual reports. Once you get past the artwork and the slick photographs and into the “meat” of these reports, the financial statements are a treasure trove of information. Are sales going up or down? Are expenses as a percentage of sales increasing or decreasing? Is the company making money? How are the officers compensated? Do they own stock in the company? Are there many pages of notes explaining the financial statements?

I actually worry when there are too many pages of notes. I prefer companies that don’t need so many pages to explain what is happening. I like companies that are able to keep their operations simple. Certainly, a great amount of important information can be gleaned from a careful study of the financial statements in any company’s annual report.

Video Clip

" href="http://app.wistia.com/embed/medias/ca4d31207d" class="replaced-iframe">(click to see video)

Unnamed Author talks about the five most important points in Chapter 3 “In What Form Is Financial Information Actually Delivered to Decision Makers Such as Investors and Creditors?”.

[1]Liquidity refers to the ease with which assets can be converted into cash. Thus, cash is normally reported first followed by investments in stock that are expected to be sold soon, accounts receivable, inventory, and so on.

[2]As will be discussed in detail later in this textbook, noncurrent assets such as buildings and equipment are initially recorded at cost. This figure is then systematically reduced as the amount is moved gradually each period into an expense account over the life of the asset. Thus, balance sheet figures for these accounts are reported as “net” to show that only a portion of the original cost still remains recorded as an asset. This shift of the cost from asset to expense is known as depreciation and mirrors the using up of the utility of the property. On this company’s income statement—Figure 3.1 “Income Statement”—assume that depreciation for the period made up a portion of the “other” expense category.

[3]The cash flows resulting from operating activities are being shown here using the direct method, an approach recommended by the Financial Accounting Standards Board (FASB). This format shows the actual amount of cash flows created by individual operating activities such as sales to customers and purchases of inventory. In the business world, an alternative known as the indirect method is more commonly encountered. This indirect method will be demonstrated in detail in Chapter 17 “In a Set of Financial Statements, What Information Is Conveyed by the Statement of Cash Flows?”.

[4]See http://www.minterest.com/warren-buffet-quotes-quotations-on-investing/.

3.5 End-of-Chapter Exercises

Questions

1. Why do businesses produce financial statements?
2. What are the four financial statements typically produced by a company?
3. On which financial statement would one find revenues and expenses?
4. What is a gain?
5. How does a gain differ from a revenue?
6. What is a loss?
7. How does a loss differ from an expense?
8. Why are revenues and expenses reported separately from gains and losses?
9. What three items are typically listed at the top of a financial statement?
10. Define “cost of goods sold.”
11. Define “gross profit.”
12. How do companies determine if a cost is an expense or an asset?
13. Define “conservatism.”
14. Explain why dividends are not reported on the income statement.
15. What are retained earnings?
16. Define “capital stock.”
17. On which statement would assets and liabilities be reported?
18. What differentiates a current asset from a noncurrent asset?
19. Give the accounting equation and explain why it is true.
20. What are the three categories of cash flows on the cash flow statement?
21. How do operating, investing and financing cash flows differ from one another?

True or False

1. ____ The income statement gives company’s revenues and expenses for one particular day of the year.
2. ____ An increase in net assets of a business due to the sale of its inventory is a gain.
3. ____ Retained earnings represents amounts contributed to the business by its owners.
4. ____ Assets and liabilities can be broken down into the categories of current and noncurrent.
5. ____ Income tax expense is typically reported separately from other expenses.
6. ____ Conservatism helps companies look better to potential investors.

7. ____ Dividends paid are reported on the balance sheet.
8. ____ Companies receive money each time their stock is sold on a stock exchange.
9. ____ A balance sheet should always balance.
10. ____ The statement of cash flows is broken up into operating, investing, and financing activities.
11. ____ Notes are considered part of a complete set of financial statements.
12. ____ Sales revenue less cost of goods sold is referred to as net income.
13. ____ A gain is the amount of net income earned by a company over its life less any dividends it has paid.
14. ____ The purpose of the balance sheet is to report the assets and liabilities of a company on a specific date.

Multiple Choice

1. You are the CEO of Fisher Corporation. You are very concerned with presenting the best financial picture possible to the owners of your company. Unfortunately, Fisher has a lawsuit pending at the end of the year, which could result in the company having to pay a large sum of money. On the bright side, Fisher also has business deal that might go through, which could result in the company making a large gain. The principle of conservatism would say that which of the following is true?
    1. Fisher should not report the potential loss related to the lawsuit.
    2. Fisher should report the possible gain from the business deal.
    3. Fisher should report the potential liability it has related to the lawsuit.
    4. Fisher should report the potential cash inflow it could receive from the business deal.
2. Henderson Inc. reports the following: assets of $500,000, liabilities of $350,000 and capital stock of $100,000. What is the balance in retained earnings?
    1. $450,000
    2. $50,000
    3. $250,000
    4. $750,000
3. Giles Corporation borrowed money from Midwest Bank during the year. Where would this event be reported on Giles's statement of cash flows?
    1. Operating activities
    2. Investing activities
    3. Financing activities
    4. It would not be reported on the statement of cash flows.
4. You are considering investing in the stock of Mogul Corporation. On which of the following statements would you find information about what a company has to help it generate revenue in the future and what the company owes to others?
    1. Income statement

2. Statement of retained earnings
3. Balance sheet
4. Statement of cash flows

5. Which of the following is not a correct representation of the accounting equation?

    1. Assets = Liabilities + Capital Stock + Retained Earnings
    2. Assets – Liabilities = Owners' Equity
    3. Assets = Liabilities + Owners' Equity
    4. Assets + Liabilities = Owners' Equity

Problems

1. Use the following abbreviations to indicate on which statement you would find each item below. Some items may appear on more than one statement. Include all abbreviations that would apply.

    - IS: Income statement
    - SRE: Statement of retained earnings
    - BS: Balance sheet

    1. _____ Sales
    2. _____ Cash
    3. _____ Gain on sale of building
    4. _____ Retained earnings
    5. _____ Salary expense
    6. _____ Capital stock
    7. _____ Dividends paid
    8. _____ Loss on sale of investment
    9. _____ Income tax expense
    10. _____ Net income

2. The following relate to Farr Corporation for the month of April:

Sales Revenue	$140,000
Gain on the Sale of Land	$20,000
Cost of Goods Sold	$75,000
Tax Expense	$14,000
Advertising Expense	$10,000
Dividends Paid	$7,000
Loss on Lawsuit	$24,000

1. Determine Farr's gross profit for the month of April.
2. Determine Farr's net income for the month of April.
3. If retained earnings at the beginning of April were $1,500,000, what would retained earnings be at the end of April?

3. Maverick Company has the following account balances at the end of December. Show that Maverick's balance sheet would balance using the accounting equation.

Cash	$8,000
Capital Stock	$120,000
Inventory	$16,000
Note Payable	$45,000
Retained Earnings	$29,000
Building	$150,000
Equipment	$20,000

4. Ramond Company has hired you to prepare financial statements for the year ending 12/31. On your first day of work, your assistant comes to you with several items that could be classified as expenses or could be classified as assets. Based on your knowledge of accounting so far, determine whether the following items should be recorded as an expense or an asset.

    1. On 12/31, Ramond paid $14,000 to rent office space for the next twelve months.
    2. On 10/1, Ramond paid $40,000 for insurance that covered the company's property for the last quarter of the year.
    3. On 6/1, Ramond purchased $27,000 in supplies, all of which were used by 12/31.
    4. On 12/31, Ramond purchased $5,000 worth of supplies for the coming month.

5. For each of the following, determine the missing balance.

1.

Net Income	$82,900
Cost of Goods Sold	$459,030
Advertising Expense	$56,000
Gain on Sale of Equipment	$5,000
Income Tax Expense	$50,000
Sales Revenue	?

2.

Net Income	$6,500
Retained Earnings, 12/31	$16,200
Dividends	$2,900
Retained Earnings, 1/1	?

3.

Cash	$460,000
Accounts Receivable	$540,200
Current Assets	$1,670,000
Inventory	?

4.

Total Assets	$54,000
Total Liabilities	$32,000
Capital Stock	$15,000
Retained Earnings	?

6. Rescue Records needs rescuing. The downloading of songs and other media are killing its business. The owners of Rescue want to know if they made a net income or a net loss for the year ended December 31. Given the following account balances, prepare an income statement for Rescue similar to Figure 3.1 "Income Statement".

Advertising Expense	$4,600
Salary Expense	$25,470
Cost of Goods Sold	$109,000
Sales Revenue	$197,000
Income Tax Expense	$3,800
Loss on Sale of Stock	$12,090
Rent Expense	$35,000

7. Your lawn care business, A Cut Above, has grown beyond your wildest dreams—to the point where you would like to buy some new equipment and hire some people to help you. Unfortunately, you don't have that kind of money sitting around, so you are applying for a loan. The bank has requested financial

statements, including, of course, a balance sheet. The following are the balances you have on 5/31. Prepare a classified balance sheet to submit to the bank.

Cash	$2,400
Prepaid Insurance	$1,400
Note Payable Due Two Years from Now (Loan from Mom)	$5,000
Capital Stock (Money You Invested to Start Business)	$2,000
Accounts Receivable	$500
Supplies Inventory	$300
Equipment, Net	$3,000
Accounts Payable	$300
Retained Earnings	$300

8. Maria Sanchez, an accountant by trade, moonlights as a personal trainer. Maria is curious about her cash inflows and outflows from her personal work for the month of February. Using the following information, prepare a statement of cash flows for Maria.

Cash for Supplies Inventory	$500
Cash for Advertising	$400
Cash Paid for Equipment	$900
Cash Received from Bank Loan	$1,000
Cash Paid for Insurance	$700
Cash Received from Customers	$2,200
Cash Paid for Taxes	$400
Cash Balance, 2/1	$500

Research

1. The U.S. Securities and Exchange Commission (SEC) is a governmental organization whose mission is to protect investors and oversee capital markets. The SEC requires companies whose stock is traded on U.S. public exchanges to submit financial statements like those introduced in this chapter on a quarterly and annual basis. Anyone can access these statements using the SEC's EDGAR (Electronic Data Gathering and Retrieval) database system. This exercise will allow you to learn more about the SEC and use its database to access a company's financial statements. You can access the SEC on the Internet at http://www.sec.gov.

    1. When and why was the SEC created?
    2. Name the main divisions of the SEC and briefly explain their function.
    3. From the home page, select "Forms and Filings (EDGAR)." Select "search for company

filings.” Select “companies and other filers.” In the box beside “company name,” enter the name or part of the name of a company about which you are interested in learning more. You should see a long list of strange letters and numbers like 8-K and 10-K. These designate the type of filing the company has made. Scroll down until you come to a 10-K filing. This is the annual report of the company. Select html and then select the document next to 10-K. Scroll down to the table of contents and select item 8. These are the company’s financial statements. Which financial statements do you see?

Chapter 4: How Does an Organization Accumulate and Organize the Information Necessary to Prepare Financial Statements?

Video Clip

(click to see video)

Joe introduces Chapter 4 "How Does an Organization Accumulate and Organize the Information Necessary to Prepare Financial Statements? " and speaks about the course in general.

4.5 The Connection of the Journal and the Ledger

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Prepare journal entries for basic transactions such as the payment of insurance, the acquisition of a long-lived asset, the contribution of capital, the payment of a dividend, and the like.
2. Explain the recording of a gain or loss rather than revenue and cost of goods sold.
3. Describe the recording of an unearned revenue.
4. Understand the purpose of both the journal and the ledger.
5. Discuss the posting of journal entries to the ledger T-accounts and describe the purpose of that process.

Question: The Lawndale Company pays $700 for insurance coverage received over the past few months. In this case, though, the amount has already been recognized by the company. Both the insurance expense and an insurance payable were recorded as incurred. Thus, the amounts can be seen on the trial balance in Figure 4.3 "Balances Taken From T-accounts in Ledger". Apparently, Lawndale's accounting system was designed to recognize this particular expense as it grew over time. When an expense has already been recorded, what journal entry is appropriate at the time actual payment is made?

Answer: Because of the previous recognition, the expense should not now be recorded a second time. Instead, this payment reduces the liability that was established by the accounting system. Cash—an asset—is decreased, which is shown by means of a credit. At the same time, the previously recorded payable is removed. Any reduction of a liability is communicated by a debit. To reiterate, no expense is included in this entry because that amount has already been recognized.

Figure 4.9 Journal Entry 5: Liability for Insurance Is Paid

Insurance Payable	700		(decrease a liability—debit)
Cash		700	(decrease an asset—credit)

Note that Journal Entries 2 and 5 differ although the events are similar. As discussed previously, specific recording techniques can be influenced by the manner in which the accounting system has handled earlier events. In Journal Entry 2, neither the expense nor the payable had yet been recorded. Thus, the expense was recognized at the time of payment. For Journal Entry 5, both the expense and payable had already been entered into the records as the amount gradually grew over time. Hence, when paid, the liability is settled but no further expense is recognized. The proper amount is already present in the insurance expense T-account.

Question: *Assume that a new truck is acquired by the Lawndale Company for $40,000. Cash of $10,000 is paid now but a note payable—due in several years—is signed for the remaining $30,000. This transaction impacts three accounts rather than just two. How is a journal entry constructed when more than two accounts have been affected?*

Answer: As has been discussed, every transaction changes at least two accounts because of the cause and effect relationship underlying all financial events. However, beyond that limit, any number of accounts can be impacted. Complex transactions often touch numerous accounts. Here, the truck account (an asset) is increased and must be debited. Part of the acquisition was funded by paying cash (an asset) with the decrease recorded as a credit. The remainder of the cost was covered by signing a note payable (a liability). A liability increase is recorded by means of a credit. Note that the debits do equal the credits even when more than two accounts are affected by a transaction.

Figure 4.10 Journal Entry 6: Truck Acquired for Cash and by Signing a Note

Truck	40,000		(increase an asset—debit)
Cash		10,000	(decrease an asset—credit)
Note Payable		30,000	(increase a liability—credit)

Question: Lawndale Company needs additional financing so officials go to current or potential shareholders and convince them to contribute cash of $19,000 in exchange for new shares of the company's capital stock. These individuals invest this money in order to join the ownership or increase the number of shares they already hold. What journal entry does a business record when capital stock is issued?

Answer: The asset cash is increased in this transaction, a change that is always shown as a debit. Capital stock also goes up because new shares are issued to company owners. As indicated in the debit and credit rules, the capital stock account increases by means of a credit.

Figure 4.11 Journal Entry 7: Capital Stock Issued for Cash

Cash	19,000		(increase an asset—debit)
Capital Stock		19,000	(increase a capital stock—credit)

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092643.html

Question: *In Journal Entry 4A, a sale was made on credit. An account receivable was established at that time for $5,000. Assume that the customer now pays this amount to the Lawndale Company. How does the collection of an amount from an earlier sales transaction affect the account balances?*

Answer: When a customer makes payment on a previous sale, cash increases and accounts receivable decrease. Both are assets; one balance goes up (by a debit) while the other is reduced (by a credit).

Figure 4.12 Journal Entry 8: Money Collected on Account

Cash	5,000		(increase an asset—debit)
Accounts Receivable		5,000	(decrease an asset—credit)

Note that cash is collected here but no additional revenue is recorded. Based on the requirements of accrual accounting, revenue of $5,000 was recognized previously in Journal Entry 4A. Apparently, the revenue realization principle was met at that time, the earning process was substantially complete and a reasonable estimation could be made of the amount to be received. Recognizing the revenue again at the current date would incorrectly inflate reported net income. Instead, the previously created receivable balance is removed.

Question: *In Journal Entry 1, inventory was purchased on credit for $2,000. Assume, now, that Lawndale makes payment of the entire amount that is due. How is a cash outflow to pay for inventory previously acquired shown in a company's journal?*

Answer: Inventory was bought at an earlier time and payment is now being made. The inventory was properly recorded when acquired and should not be entered again. The merchandise was only obtained that one time. Here, cash is reduced (a credit). The liability set up in Journal Entry 1 (accounts payable) is removed by means of a debit.

Figure 4.13 Journal Entry 9: Money Paid on Account

Accounts Payable	2,000		(decrease a liability—debit)
Cash		2,000	(decrease an asset—credit)

Question: *Company officials like the building that is being used for operations and decide to rent it for four additional months at a rate of $1,000 per month. An immediate payment of $4,000 is made. This cost provides a future economic benefit for the company rather than a past value. Recognition of an expense is not yet appropriate. What is recorded when rent or other costs such as insurance or advertising are paid in advance?*

Answer: Cash is decreased by the payment made here to rent this building. As an asset, a reduction is reported in cash by means of a credit. However, this rent provides a future value for Lawndale Company. The cost is not for past usage of the building but rather for the upcoming four months. Therefore, the amount paid creates an asset. The probable economic benefit is the ability to make use of this facility during the future to generate new revenues. When the $4,000 is initially paid, an asset—normally called prepaid rent—is recorded through a debit.

Figure 4.14 Journal Entry 10: Money Paid for Future Rent

Prepaid Rent	4,000		(increase an asset—debit)
Cash		4,000	(decrease an asset—credit)

Note that this company does not record the building itself as the asset because it does not gain ownership or control (beyond these four months). The payment only provides the right to make use of the building for the specified period in the future so that a prepaid rent balance is appropriate.

Before this illustration of typical journal entries is completed, four additional transactions will be examined. In total, these fourteen provide an excellent cross-section of basic events encountered by most businesses and the journal entries created to capture that information. Coming to understand the recording of these transactions is of paramount importance in mastering the debit and credit rules.

Question: *Officials of the Lawndale Company decide to buy a small tract of land by paying $8,000 in cash. Perhaps they think the space might be used sometime in the future as a parking lot. What is recorded to reflect the cash purchase of a plot of land?*

Answer: The transaction here is straightforward. As an asset, land increases with a debit. Cash goes down because of the acquisition and is recorded using a credit. As stated previously, Venetian merchants would probably have made the same recording five hundred years ago (although not in U.S. dollars).

Figure 4.15 Journal Entry 11: Land Acquired for Cash

Land	8,000		(increase an asset—debit)
Cash		8,000	(decrease an asset—credit)

Question: *Now, assume that—at a later time—this same piece of land is sold to an outside party for cash of $11,000. A sale occurs here but the land is not inventory. It was not bought specifically to be resold within the normal course of business. Selling land is not the primary operation of the Lawndale Company. Should revenue be recorded along with cost of goods sold when land is sold? These accounts are used in journalizing the sale of inventory. Does the same reporting apply to the sale of other items such as land or equipment?*

Answer: Because the sale of land is not viewed as a central portion of this company's operations, neither revenue nor cost of goods sold is reported as in the sale of inventory. An $11,000 increase in cash is recorded along with the removal of the $8,000 cost of the land that was conveyed to the new buyer. However, to alert decision makers that a tangential or incidental event has taken place, a gain (if the sales price is more than the cost of the land) or a loss (if the sales price is less than cost) is recognized for the difference. The effect on net income is the same but the reporting has changed.

Often, the resulting gain or loss is then separated from revenues and expenses on the company's income statement to more clearly communicate information as to the nature of the transaction. Consequently, neither revenue nor cost of goods sold is found in the entry below as was shown above in Journal Entries 4A and 4B.

Figure 4.16 Journal Entry 12: Land Sold for Cash in Excess of Cost

Cash	11,000		(increase an asset—debit)
Land		8,000	(decrease an asset—credit)
Gain on Sale of Land		3,000	(increase revenue/gain—credit)

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092628.html

Question: Accrual accounting, as specified in the revenue realization principle, mandates that revenues should not be recognized until the earning process is substantially complete. Assume a customer gives the Lawndale Company $3,000 in cash for some type of service to be performed at a future date. The work has not yet begun. Thus, Lawndale cannot report revenue of $3,000. How is a cash inflow recorded if it is received for work before the earning process is substantially complete?

Answer: Although the company collected money, accrual accounting dictates that revenue cannot yet be recognized. The earning process here will not take place until sometime in the future. As an asset, the cash account is increased (debit) but no revenue can be recorded. Instead, an unearned revenue account is set up to recognize the $3,000 credit. This balance is reported by the Lawndale Company as a liability. Because the money has been accepted, the company is obliged to provide the service or return the $3,000 to the customer. Recording this liability mirrors the company's future responsibility.

Figure 4.17 Journal Entry 13: Money Received for Work to Be Done Later

Cash	3,000		(increase an asset—debit)
Unearned Revenue		3,000	(increase a liability—credit)

Here is one final transaction to provide a full range of basic examples at this preliminary stage of coverage. Many additional transactions and their journal entries will be introduced throughout this textbook, but these fourteen form a strong core of typical events encountered by most businesses.

Question: Assume that the Lawndale Company has been profitable. As a result, the board of directors votes to distribute a cash dividend to all owners, a reward that totals $600. Payment is made immediately. What recording is appropriate when a dividend is paid?

Answer: Cash is reduced by this distribution to the company's owners. As an asset, a credit is appropriate. The cause of the decrease was payment of a dividend. Hence, a dividends paid account is established. According to the debit and credit rules, dividends paid is listed as one of the accounts that increases through a debit. Thus, the recording of this last illustration is as follows.

Figure 4.18 Journal Entry 14: Dividend Distributed to Owners

Dividends Paid	600		(increase dividends paid—debit)
Cash		600	(decrease an asset—credit)

Question: With practice, obtaining an understanding of the rules for debits and credits is a reasonable goal. However, these journal entries do not provide the current balance of any account. They record the effect of each transaction but not the updated account totals, figures that could change many times each day. How does an accountant determine the current balance of cash, inventory, rent expense, or the like?

Answer: In an accounting system, the recording process is composed of two distinct steps.

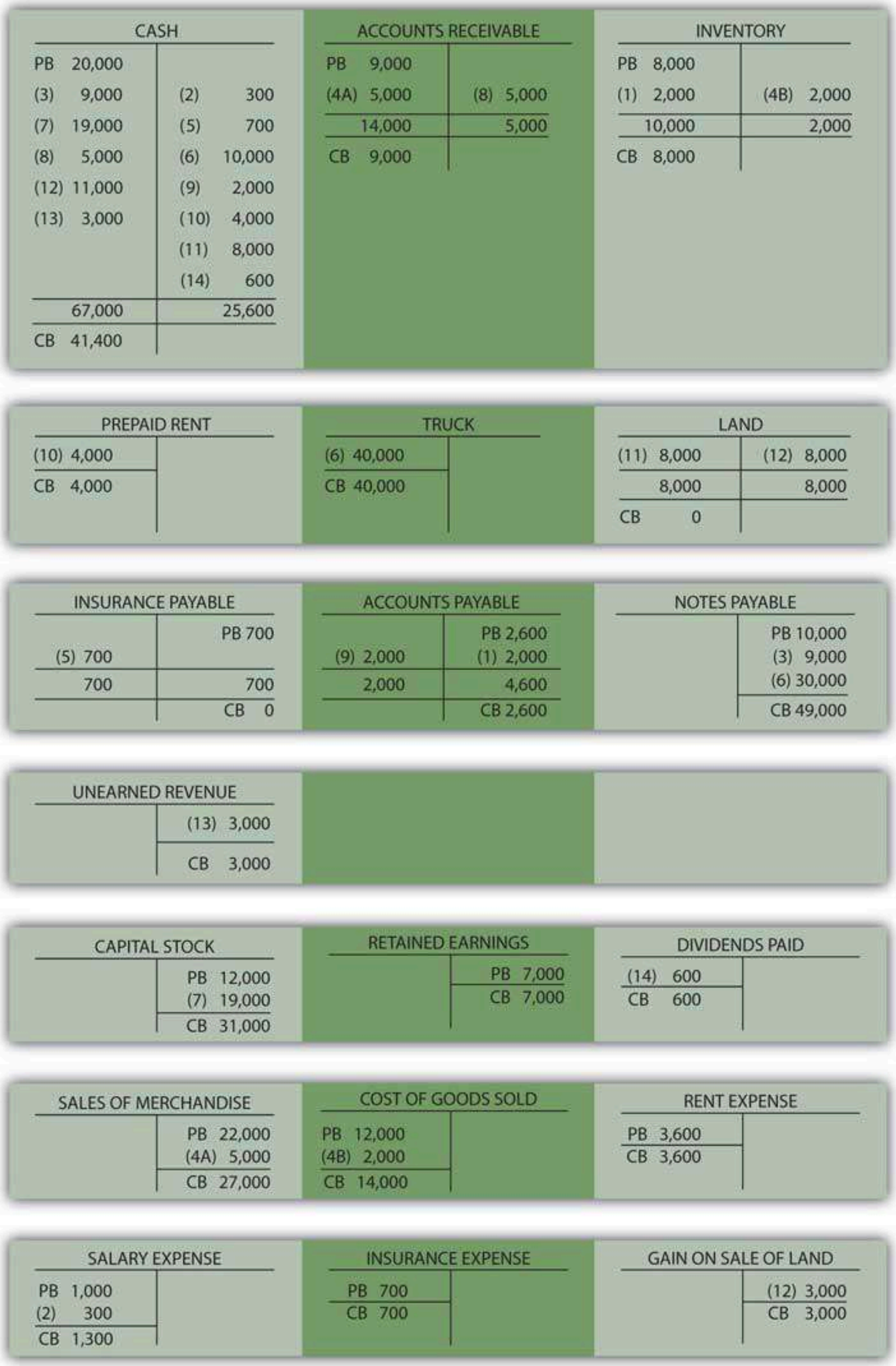
1. After analyzing the financial impact of a transaction, a journal entry is created to reflect the impact on relevant accounts.
2. Then, each individual debit and credit is added to the specific T-account being altered, a process known as "posting." A debit to cash in a journal entry is listed as a debit in the cash T-account. A

> credit made to notes payable is recorded as a credit within the notes payable T-account. After all entries are posted, the current balance for any account can be determined by adding the debit and the credit sides of the T-account and netting the two.

Historically, posting the individual changes shown in each journal entry to the specific T-accounts was a tedious and slow process performed manually. Today, automated systems are designed so that the impact of each entry is simultaneously recorded in the proper T-accounts found in the ledger.

For illustration purposes, the journal entries recorded above have been posted into ledger T-accounts shown in Figure 4.4 "Journal Entry 1: Inventory Acquired on Credit". Each account includes the previous balance (PB) found in the trial balance shown in Figure 4.3 "Balances Taken From T-accounts in Ledger" at the start of the illustrated transactions. The additional debits and credits recorded for each of the fourteen sample transactions include the number of the corresponding journal entry for cross-referencing purposes. The debit and credit sides of each account can be summed and netted at any point to determine the current balance (CB).

Figure 4.19 Lawndale Company Ledger



Key Takeaway

Initial coverage of the recording of basic transactions is concluded here through analysis of the payment of insurance, the contribution of capital, the purchase and sale of land, the receipt of cash prior to work being performed, the payment of dividends to owners, and the like. After the impact of each event is ascertained, debits and credits are used to record these changes. These journal entries are then posted to the appropriate T-accounts used to monitor ever-changing account balances. All the T-accounts are collectively known as a ledger or general ledger. Journal entries document the effect of transactions. T-accounts and the ledger maintain the current balance of every account.

Talking with a Real Investing Pro (Continued)

Following is a continuation of our interview with Kevin G. Burns.

Question: When you were a college student majoring in accounting, you learned all the debit and credit rules as well as about journal entries and the general ledger. In your years as an investment advisor, has this knowledge ever proven to be helpful to you and your career?

Kevin Burns: Although I never planned to be an accountant when I was in college, I found the internal logic of the debit and credit rules quite fascinating. Thinking through transactions and figuring out the proper recording process was a great introduction to business operations. In all honesty, as an investment advisor, I am more interested in asset values and other balance sheet information than the accounting process necessary to gather this information. However, I also happen to own a restaurant and I always find it interesting when I dig through the specific expense accounts looking for ways to be more efficient. For instance, recently when I saw that we had spent a lot of money last year on building maintenance, I could not imagine how that was possible. I dug through the T-account myself and found a recording error that needed to be fixed. My background allowed me to understand the entire process. Frequently, as I study the various debits within our expenses, I am able to spot areas where the restaurant can save money.

Video Clip

" href="http://app.wistia.com/embed/medias/1fa36d64f8" class="replaced-iframe">(click to see video)

Unnamed Author talks about the five most important points in Chapter 4 “How Does an Organization Accumulate and Organize the Information Necessary to Prepare Financial Statements? “.

4.6 End-of-Chapter Exercises

Questions

1. What is a transaction?
2. Where was the accounting system developed that is still used by businesses today?
3. What is this system called?
4. What are the four steps followed by accounting systems?
5. By what is financial information accumulated?
6. Define “T-account.”
7. Which accounts are increased with a debit?
8. Which accounts are increased with a credit?
9. What is a journal in the accounting sense?
10. What is a trial balance?
11. Accrual accounting is composed of which two principles? Define each.
12. Define “unearned revenue.”

True or False

1. ____ Debits and credits must equal for every transaction.
2. ____ A list of all recorded journal entries is maintained in the ledger.
3. ____ Revenue may not be recorded until cash is collected.
4. ____ A transaction is any event that has a financial impact on a company.
5. ____ An expense account is increased with a credit.
6. ____ Examples of accrued expenses include salary, rent, and interest.
7. ____ Posting refers to process of recording journal entries.
8. ____ A company must recognize an accrued expense as incurred.
9. ____ The matching principle states that expenses should be recognized in the same period as the revenues they help generate.
10. ____ Unearned revenue is a type of revenue account.

Multiple Choice

1. Which of the following is **not** true about double-entry bookkeeping?
    1. It originated in Italy.
    2. Debits and credits must equal.
    3. It is still used today.
    4. An entry can have no more than one credit and one debit.
2. Which of the following entries could Yeats Company not make when they perform a service for a client?
    1. Figure 4.20

Accounts Receivable	XXX	
Revenue		XXX

    2. Figure 4.21

Cash	XXX	
Revenue		XXX

    3. Figure 4.22

Accounts Payable	XXX	
Revenue		XXX

    4. Figure 4.23

Cash	XXX	
Accounts Receivable	XXX	
Revenue		XXX

3. Which of the following is a transaction for Tyler Corporation?
    1. Tyler pays its employees $400 for work done.
    2. Tyler considers renting office space that will cost $1,500 per month.
    3. Tyler agrees to perform services for a client, which will cost $7,000.
    4. Tyler places an order for supplies that will be delivered in two weeks. The supplies cost $200.
4. Elenor Company sells 400 units of inventory for $40 each. The inventory originally cost Elenor $26 each. What is Elenor's gross profit on this transaction?
    1. $16,000

2. $10,400
3. $ 5,600
4. $ 9,600

5. Which of the following increases with a debit?

   1. Retained earnings
   2. Sales revenue
   3. Inventory
   4. Note payable

6. In January, Rollins Company is paid $500 by a client for work that Rollins will not begin until February. Which of the following is the correct journal entry for Rollins to make when the $500 is received?

   1. Figure 4.24

Cash	500	
Accounts Receivable		500

   2. Figure 4.25

Cash	500	
Unearned Revenue		500

   3. Figure 4.26

Cash	500	
Revenue		500

   4. Figure 4.27

Accounts Receivable	500	
Revenue		500

Problems

1. Record the following journal entries for Taylor Company for the month of March:

   1. Borrowed $4,500 from Local Bank and Trust
   2. Investors contributed $10,000 in cash for shares of stock

    3. Bought inventory costing $2,000 on credit
    4. Sold inventory that originally cost $400 for $600 on credit
    5. Purchased a new piece of equipment for $500 cash
    6. Collected $600 in cash from sale of inventory in (d) above
    7. Paid for inventory purchased in (c) above
    8. Paid $1,200 in cash for an insurance policy that covers the next year
    9. Employees earned $3,000 during the month but have not yet been paid
    10. Paid employees $2,900 for wages earned and recorded during February

2. For each of the following transactions, determine if Raymond Corporation has earned revenue during the month of May and, if so, how much it has earned.
    1. Customers paid Raymond $1,500 for work Raymond will perform in June.
    2. Customers purchased $6,000 of inventory for which they have not yet paid.
    3. Raymond performed work for customers and was paid $3,400 in cash.
    4. Customers paid Raymond $2,300 for inventory purchased in April.
3. Record the journal entries for number 2 above.
4. Determine the missing account balance in the following trial balance:

    Figure 4.28 Trial Balance—Ester Company

Ester Company Trial Balance 12/31/20XX		
Account Title	Debits	Credits
Cash	$4,600	
Accounts Receivable	11,000	
Inventory	15,090	
Accounts Payable		$3,600
Note Payable		13,000
Capital Stock		5,000
Retained Earnings, 1/1/20XX		2,200
Sales Revenue		19,050
Cost of Goods Sold	?????	
Salary Expense	1,500	

5. State which balance, debit, or credit is normally held by the following accounts:
    1. Cash
    2. Dividends
    3. Notes payable

4. Unearned revenue
5. Cost of goods sold
6. Prepaid rent
7. Accounts receivable
8. Capital stock

6. Near the end of her freshman year at college, Heather Miller is faced with the decision of whether to get a summer job, go to summer school, or start a summer dress making business. Heather has had some experience designing and sewing and believes it might be the most lucrative of her summer alternatives. She starts "Sew Cool."

   During June, the first month of business, the following occur:

   1. Heather deposits $1,000 of her own money into Sew Cool's checking account.
   2. Sew Cool purchases equipment for $1,000. The company signs a note payable for this purchase.
   3. Sew Cool purchases $1,000 in sewing supplies and material in cash.
   4. Sew Cool gives Heather's parents a check for $80 for rent and utilities.
   5. Heather sews and sells twenty dresses during the month. Each dress has a price of $60. Cash is received for twelve of the dresses, with customers owing for the remaining eight.
   6. The dresses sold above cost $35 each to make.
   7. Sew Cool purchases advertising for $50 cash.
   8. Sew Cool pays Heather a cash dividend of $10 cash.
   9. Sew Cool's taxes, paid in cash, amount to $87.

      1. Prepare journal entries for the above transactions.
      2. Prepare T-accounts for each account used.
      3. Prepare a trial balance for June.

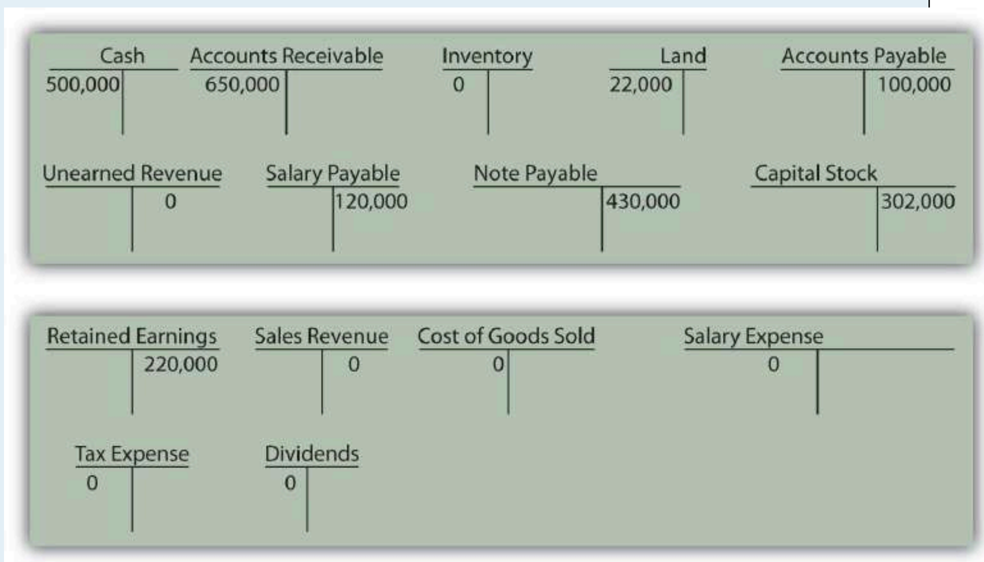
7. Bowling Corporation had the following transactions occur during February:

   1. Bowling purchased $450,000 in inventory on credit.
   2. Bowling received $13,000 in cash from customers for subscriptions that will not begin until the following month.
   3. Bowling signed a note from Midwest Bank for $67,000.
   4. Bowling sold all the inventory purchased in (a) above for $700,000 on account.
   5. Bowling paid employees $120,000 for services performed during January.
   6. Bowling purchased land for $56,000 in cash.
   7. Bowling received $650,000 in cash from customers paying off January's accounts receivable.
   8. Bowling paid dividends to stockholders in the amount of $4,000.
   9. Bowling owes its employees $123,000 for work performed during February but not yet paid.
   10. Bowling paid $300,000 on its accounts payable.
   11. Bowling paid taxes in cash of $45,000.

       Required:

    1. Prepare journal entries for the above transactions.
    2. Complete the T-accounts below. Numbers already under the accounts represent the prior balance in that account.

       Figure 4.29 Opening T-Account Balances

    3. Prepare a trial balance for February.

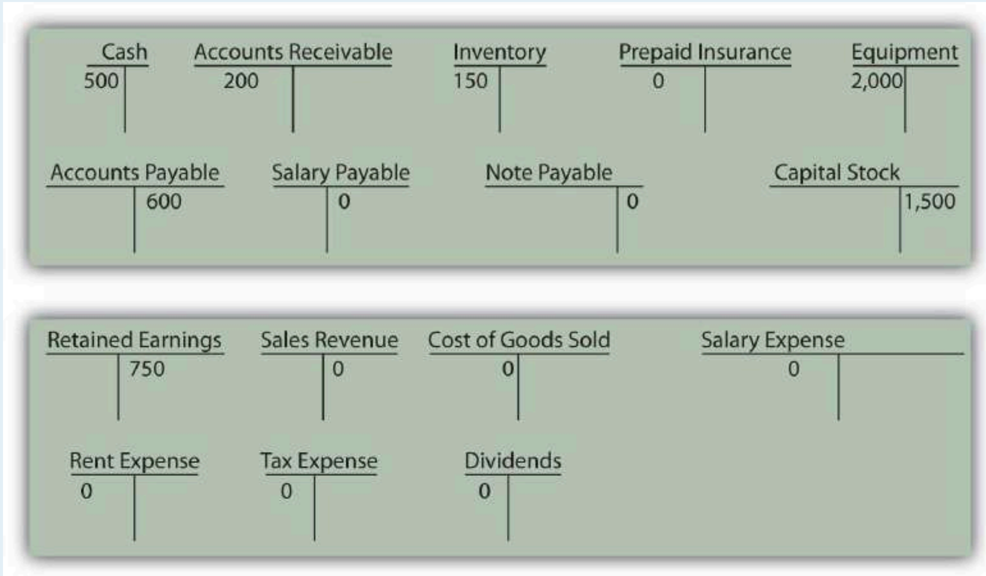
8. The following events occurred during the month of May for McLain Company.

    1. McLain sells 240 units for $20 each. McLain collects cash for 200 of these units. The units cost McLain $8 each to purchase.
    2. McLain purchases $1,800 worth of inventory on account.
    3. McLain collects $500 in cash on its A/R.
    4. McLain takes out a loan for $400.
    5. McLain pays out $350 cash in dividends.
    6. McLain receives a contribution of $600 from its owners.
    7. McLain purchased a new piece of equipment. The new equipment cost $1,000 and was paid for in cash.
    8. McLain pays $500 of its accounts payable.
    9. McLain incurs $500 in salaries expense, but will not pay workers until next month.
    10. McLain incurs $300 in rent expense and pays it in cash.
    11. McLain prepays $200 in cash for insurance.
    12. Taxes, paid in cash, are $110.

    Required:

    1. Prepare journal entries for the above transactions.
    2. Complete the T-accounts below. Numbers already under the accounts represent the prior balance in that account.

Figure 4.30 Opening T-Account Balances



3. Prepare a trial balance for May.

4.1 The Essential Role of Transaction Analysis

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Define “transaction” and provide common examples.
2. Define “transaction analysis” and explain its importance to the accounting process.
3. Identify the account changes created by the purchase of inventory, the payment of a salary, and the borrowing of money.
4. Understand that accounting systems can be programmed to automatically record expenses such as salary as it accrues.

Question: *Information provided by a set of financial statements is essential to any individual analyzing a business or other organization. The availability of a fair representation of a company’s financial position, operations, and cash flows is invaluable for a wide array of decision makers. However, the sheer volume of data that a company such as General Mills, McDonald’s, or PepsiCo must gather in order to prepare these statements has to be astronomical. Even a small enterprise—a local convenience store, for example—generates a significant quantity of information virtually every day. How does an accountant begin the process of accumulating all the necessary data so that financial statements can eventually be produced?*

Answer: The accounting process starts by analyzing the effect of **transactions**—any event that has a financial impact on a company. Large organizations participate in literally millions of transactions each year that must be gathered, sorted, classified, and turned into a set of financial statements that cover a mere four or five pages. Over the decades, accountants have had to become very efficient to fulfill this seemingly impossible assignment. Despite the volume of transactions, the goal remains the same: to prepare financial statements that are presented fairly because they contain no material misstatements according to U.S. generally accepted accounting principles (U.S. GAAP).

For example, all the occurrences listed in Figure 4.1 “Transactions Frequently Encountered” are typical transactions that any company might encounter. Each causes some measurable effect on a company’s assets, liabilities, revenues, expenses, gains, losses, capital stock, or dividends paid. The accounting process begins with an analysis of each transaction to determine the financial changes that took place. Was revenue earned? Did a liability increase? Has an asset been acquired?

Figure 4.1 Transactions Frequently Encountered

1—Buy inventory on credit for $2,000
2—Pay regular salary of $300 to an employee for work done during the past week; no amount had previously been recorded
3—Borrow $9,000 in cash from bank by signing a loan agreement
4—Make a sale of the inventory bought in (1) to a customer for $5,000 on credit
5—Pay $700 for insurance coverage for the past few months; this amount has previously been recognized in the company's accounting system as it was incurred
6—Buy a new automobile for the company for a price of $40,000 by paying $10,000 in cash and signing a note for the remainder
7—Issue ownership shares to a new stockholder for cash of $19,000
8—Collect cash from customer on earlier sale in (4)
9—Pay cash for the inventory acquired in (1)
10—Pay $4,000 to rent a building for the next four months

In any language, successful communication is only possible if the information to be conveyed is properly understood. Likewise, in accounting, transactions must be analyzed so their impact is understood. A vast majority of transactions are relatively straightforward so that, with experience, the accountant can ascertain the financial impact almost automatically. For transactions with greater complexity, the necessary analysis becomes more challenging. However, the importance of this initial step in the production of financial statements cannot be overstressed. The well-known computer aphorism captures the essence quite succinctly: "garbage in, garbage out." There is little hope that financial statements can be fairly presented unless the entering data are based on an appropriate identification of the changes created by each transaction.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092626.html

Transaction Analysis

Question: *Transaction 1—A company buys inventory on credit for $2,000. How does transaction analysis work here? What accounts are affected by this purchase?*

Answer: Inventory, which is an asset, increases by $2,000. The organization has more inventory than it did prior to the purchase. Because no money has yet been paid for these goods, a liability for the same amount has been created. The term **accounts payable** is often used in financial accounting to represent debts resulting from the acquisition of inventory and supplies.

inventory (asset) increases by $2,000
accounts payable (liability) increases by $2,000

Note that the accounting equation described in the previous chapter remains in balance. Assets have gone up by $2,000 while the liability side of the equation has also increased by the same amount to reflect the source of this increase in the company's assets.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092605.html

Question: *Transaction 2—A company pays a salary of $300 to one of its employees for work performed during the past week. No amount had previously been recorded by the accounting system for this amount. What accounts are affected by this salary payment?*

Answer: Cash (an asset) is decreased here by $300. Whenever cash is involved in a transaction, determining that change is a good place to start the analysis. Increases and decreases in cash are often obvious.

The cash balance declined here because salary was paid to an employee. Assets were reduced as a result of the payment. That is a cost to the company. Thus, a salary expense of $300 is reported. Recognizing an expense is appropriate rather than an asset because the employee's work reflects a past benefit. The effort has already been carried out, generating revenues for the company in the previous week rather than in the future.

salary expense (expense) increases by $300
cash (asset) decreased by $300

The continued equilibrium of the accounting equation does exist here although it is less obvious. Assets are decreased. At the same time, an expense is recognized. This expense reduces reported net income. On the statement of retained earnings, current net income becomes a component of retained earnings. The reduction in income here serves to decrease retained earnings. Because both assets and retained earnings go down by the same amount, the accounting equation continues to balance.

Question: *In Transaction 2, the company paid a salary of $300 that it owed to a worker. Why does a payment to an employee not reduce a salary payable balance?*

Answer: Costs such as salary, rent, or interest increase gradually over time and are often referred to as **accrued expenses** because the term "accrue" means "to grow." An accounting system can be mechanically structured to record such costs in either of two ways. The results are the same but the steps in the process differ.

- Some companies simply ignore accrued expenses until paid. At that time, the expense is recognized and cash is reduced. No liability is entered into the accounting system or removed. Because the information provided above indicates that nothing has been recorded to date, this approach is used here.

- Other companies choose to program their computer systems so that both the expense and the related liability are recognized automatically as the amount grows. For salary, as an example, this increase could literally be recorded each day or week based on the amount earned by employees. At the time payment is finally conveyed, the expense has already been recorded. Thus, the liability is removed because that debt is being settled. Below, in Transaction 5, this second possible approach to recording accrued expenses is illustrated.

A company can recognize an accrued expense (such as a salary) as incurred or wait until payment. This decision depends on the preference of company officials. The end result (an expense is reported and cash decreased) is the same, but the recording procedures differ. As will be discussed, if no entry has been made for such costs prior to the production of financial statements (the first alternative), both the expense and the payable do have to be recognized at that time so that all balances are properly stated for reporting purposes.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092606.html

Question: *Transaction 3—A company borrows $9,000 from a bank. What is the impact of signing a loan agreement with a bank or other lending institution?*

Answer: Cash is increased by the amount of money received from the lender. The company is obligated to repay this balance and, thus, has incurred a new liability. As with many transactions, the financial impact is reasonably easy to ascertain.

cash (asset) increases by $9,000
note payable (liability) increases by $9,000

Key Takeaway

Most organizations must gather an enormous quantity of information as a prerequisite for preparing financial statements periodically. This process begins with an analysis of the impact of each transaction (financial event). After the effect on all account balances is ascertained, the recording of a transaction is relatively straightforward. The changes caused by most transactions—the purchase of inventory or the signing of a note, for example—can be determined quickly. For accrued expenses, such as salary or rent that grow over time, the accounting system can record the amounts gradually as incurred or only at the point of payment. However, the figures to be reported are not impacted by the specific mechanical steps that are taken.

4.2 The Effects Caused by Common Transactions

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Explain the reason that a minimum of two accounts are impacted by every transaction.
2. Identify the account changes that are created by the payment of insurance and rent, the sale of merchandise, the acquisition of a long-lived asset, a capital contribution, the collection of a receivable, and the payment of a liability.
3. Separate the two events that occur when inventory is sold and determine the effect of each.

Question: *Transaction 4—The inventory items that were bought in Transaction 1 for $2,000 are now sold for $5,000 on account. What balances are impacted by the sale of merchandise in this manner?*

Answer: Two things actually happen in the sale of inventory. First, revenue of $5,000 is generated by the sale. Because the money will not be collected until a later date, accounts receivable (an asset) is initially increased. The reporting of receivable balance indicates that this amount is due from a customer and should be collected at some subsequent point in time.

accounts receivable (asset) increases by $5,000
sales (revenue) increases by $5,000

Second, the inventory is removed. Companies have an option in the method by which inventory balances are monitored. Here, a **perpetual inventory system** will be utilized. That approach has become extremely common due to the prevalence of computer systems in the business world. It maintains an ongoing record of the inventory held and the amount that has been sold to date. All changes in inventory are recorded immediately. However, in a later chapter, an alternative approach—still used by some companies—known as a **periodic inventory system** will also be demonstrated.

Since a perpetual system is being used here, the reduction in inventory is recorded simultaneously with the sale. An expense is incurred as inventory costing $2,000 is taken away by the customer. The company's assets are reduced by this amount. Cost of goods sold (an expense) is recognized to reflect this decrease in the amount of merchandise on hand.

cost of goods sold (expense) increases by $2,000
inventory (asset) decreases by $2,000

The $3,000 difference between the sales revenue of $5,000 and the related cost of goods sold of $2,000 is known as the gross profit (or gross margin or mark up) on the sale.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092607.html

Question: *In each event that has been studied so far, two accounts have been affected. Are two accounts impacted by every possible transaction?*

Answer: In every transaction, a cause and effect relationship is always present. For example, accounts receivable increases because of a sale. Cash decreases as a result of paying salary expense. No account can possibly change without some identifiable cause. Thus, every transaction must touch a minimum of two accounts. Many transactions actually affect more than two accounts but at least two are impacted by each of these financial events.

Question: *Transaction 5—The reporting company pays $700 for insurance coverage relating to the past few months. The amount was previously recorded in the company's accounting system as the cost was incurred. Apparently, computers were programmed to accrue this expense periodically. What is the financial impact of paying for an expense if the balance has already been recognized over time as the liability grew larger?*

Answer: Several pieces of information should be noted here as part of the analysis.

- Cash declined by $700 as a result of the payment.
- This cost relates to a past benefit; thus, an expense has to be recorded. No future economic benefit is created by the insurance payment in this example. Cash was paid for coverage over the previous months.
- The company's accounting system has already recorded an accrual of this amount. Thus, insurance expense and the related liability were recognized as incurred. This is clearly a different mechanical procedure than that demonstrated in Transaction 2 above for the salary payment.

The expense cannot be recorded again or it will be double-counted. Instead, cash is reduced along with the liability established through the accrual process. The expense was recorded already so no additional change in that balance is needed. Instead, the liability is removed and cash decreased.

insurance payable (liability) decreases by $700
cash (asset) decreases by $700

Note that accounting recognition is often dependent on the recording that has taken place. The final results should be the same (here an expense is recognized and cash decreased), but the steps in the process can vary.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092608.html

Question: *Transaction 6—A truck is acquired for $40,000 but only $10,000 in cash is paid by the company. The other $30,000 is covered by signing a note payable. This transaction seems to be a bit more complicated because more than two figures are involved. What is the financial impact of buying an asset when only a portion of the cash is paid on that date?*

Answer: In this transaction, for the first time, three accounts are impacted. A truck is bought for $40,000, so the recorded balance for this asset is increased by that cost. Cash decreases $10,000 while the notes payable balance rises by $30,000. These events each happened. To achieve a fair presentation, the accounting process seeks to reflect the actual occurrences that took place. As long as the analysis is performed properly, recording a transaction is no more complicated when more than two accounts are affected.

truck (asset) increases by $40,000
cash (asset) decreases by $10,000
notes payable (liability) increases by $30,000

Question: *Transaction 7—Assume that several individuals approach the company and offer to contribute $19,000 in cash to the business in exchange for capital stock so that they can join the ownership. The offer is accepted. What accounts are impacted by the issuance of capital stock to the owners of a business?*

Answer: When cash is contributed to a company for a portion of the ownership, cash obviously goes up by the amount received. This money was not generated by revenues or by liabilities but rather represents assets given freely so that new ownership shares could be issued. This inflow is reflected in the financial statements as increases in the cash and capital stock accounts. Outside decision makers can see that this amount of the company’s net assets came from investments made by owners.

cash (asset) increases by $19,000
capital stock (stockholders’ equity) increases by $19,000

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092640.html

Question: *Transaction 8—A sale of merchandise was made previously in Transaction 4 for $5,000. No cash was received at that time but is collected now. What accounts are affected by the receipt of money from an earlier sale?*

Answer: The revenue from this transaction was properly recorded previously in Transaction 4 when the sale originally took place and the account receivable balance was established. Revenue should not be recorded again or it will be double-counted causing reported net income to be overstated. Instead, the accountant indicates that this increase in cash is caused by the decrease in the accounts receivable balance.

cash (asset) increases by $5,000
accounts receivable (asset) decreases by $5,000

Question: *Transaction 9—Inventory was bought in Transaction 1 for $2,000 and later sold in Transaction 4. Now, however, the company is ready to make payment on the amount owed for this merchandise. When cash is delivered to settle a previous purchase of inventory, what is the financial effect of the transaction?*

Answer: As a result of the payment, cash is decreased by $2,000. The inventory was recorded previously when acquired. Therefore, this new transaction does not replicate that effect. Instead, the liability established in number 1 is removed from the books. The company is not buying the inventory again but simply paying the debt established for these goods.

accounts payable (liability) decreases by $2,000
cash (asset) decreases by $2,000

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092627.html

Question: *Transaction 10—The company wants to rent a building to use for the next four months and pays the property's owner $4,000 to cover this cost. When a rent or other payment provides the company with a future benefit, what recording is appropriate?*

Answer: In acquiring the use of this property, the company's cash decreases by $4,000. The money was paid in order to utilize the building for four months in the future. The anticipated economic benefit is an asset and should be reported to decision makers by establishing a prepaid rent balance. The reporting company has paid to use the property at a designated time in the future to help generate revenues.

prepaid rent (asset) increases $4,000
cash (asset) decreases by $4,000

Key Takeaway

Accountants cannot record transactions without understanding the impact that has occurred. Whether inventory is sold or an account receivable is collected, at least two accounts are always affected because all such events have both a cause and a financial effect. Individual balances rise or fall depending on the nature of each transaction. The payment of insurance, the collection of a receivable, a capital contribution, and the like all cause very specific changes in account balances. One of the most common is the sale of inventory where both an increase in revenue and the removal of the merchandise takes place. Increases and decreases in inventory are often monitored by a perpetual system that reflects all such changes immediately. In a perpetual system, cost of goods sold—the expense that measures the cost of inventory acquired by a company's customers—is recorded at the time of sale.

4.3 An Introduction to Double-Entry Bookkeeping

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Explain the history of double-entry bookkeeping.
2. List the four steps followed in the accounting process.
3. Indicate the purpose of a T-account.
4. List the rules for using debits and credits.
5. Understand the reason that debits and credits are always equal.

Question: Transaction analysis determines the changes in account balances as the events of each day take place. Financial statements provide a formal structure to communicate the resulting balances periodically to an array of interested parties. Revenues, expenses, gains, and losses are presented on an income statement where they are combined to arrive at reported net income for the period. Total income earned and dividends paid by the company over its entire life are netted to compute the current retained earnings balance. Assets, liabilities, capital stock, and retained earnings are all displayed on a balance sheet. Changes in cash are separated into operating activities, investing activities, and financing activities and disclosed on a statement of cash flows. Notes offer pages of additional explanatory information. The amount of financial data that is readily available is impressive.

The accountant for a business of any significant size faces a daunting challenge in creating financial statements: gathering, measuring, and reporting the impact of the many varied events that occur virtually every day. As an example, for 2008, Xerox Corporation disclosed revenues of over $17.6 billion and operating expenses and other costs of $17.4 billion. At the end of 2008, the Kellogg Company reported holding $897 million in inventory—which is a lot of cereal—and indicated that its operating activities that year generated a net cash inflow of nearly $1.3 billion. How can any organization possibly amass and maintain such an enormous volume of data so that financial statements can be produced with no material misstatements?

Answer: Over five hundred years ago, Venetian merchants in Italy developed a system that continues to serve in the twenty-first century as the basis for accumulating financial data throughout much of the world. Today, when every aspect of modern society seems to be in a constant state of flux, a process that has remained in use for over five centuries is almost impossible to comprehend. However, the **double-entry bookkeeping** procedures that were first documented in 1494 by Fra Luca Bartolomeo de Pacioli (a friend of Leonardo da Vinci) remain virtually unchanged by time. Organizations, both small and large, use the fundamentals of double-entry bookkeeping to collect the information needed to produce financial statements that are fairly presented according to the rules of U.S. GAAP.

Question: *This assertion sounds like science fiction. It hardly seems believable that Xerox keeps up with over $17.6 billion in revenue (approximately $48 million per day) using the same methods that Venetian merchants applied to their transactions during the Renaissance. How can a five-hundred-year–old bookkeeping system possibly be usable by today's modern businesses?*

Answer: State-of-the-art computers and other electronic devices are designed to refine and accelerate the financial accounting process but the same basic organizing procedures have been utilized now for hundreds of years. In simplest terms, accounting systems are all created to follow four sequential steps:

- Analyze
- Record
- Adjust
- Report

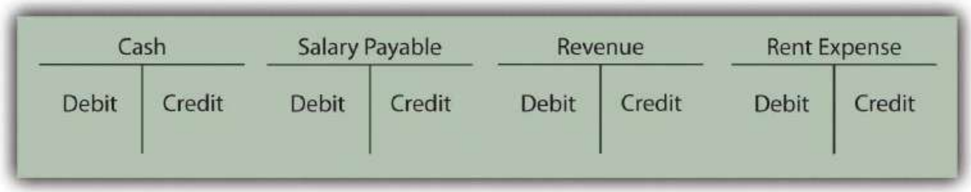
As explained previously, financial accounting starts by analyzing each transaction—every event that has a monetary impact on the organization—to ascertain the changes created in accounts such as rent expense, cash, inventory, and dividends paid. Fortunately, a vast majority of any company's transactions are repetitive so that many of the effects can be easily anticipated. A sale on credit always increases both accounts receivable and revenues. Regardless of the time or place, a cash purchase of equipment increases the balance reported for equipment while decreasing cash. Computer systems can be programmed to record the impact of these events automatically allowing the accountant to focus on analyzing more complex transactions.

Question: *The second step in the accounting system is listed above as "record." At the beginning of this chapter, a number of transactions were presented and their impact on individual accounts determined. Following this analysis, some method has to be devised to capture the information in an orderly fashion. Officials could just list the effect of each transaction on a sheet of paper: increase inventory $2,000 and increase accounts payable $2,000; increase salary expense $300 and decrease cash $300. However, this process is slow and poorly organized. A more efficient process is required. What is the key to recording transactions after all account changes are identified?*

Answer: An essential step in understanding the accounting process is to realize that financial information is accumulated by **accounts**. Every balance to be reported in a company's financial statements is maintained in a separate account. Thus, for assets, an individual account is established to monitor cash, accounts receivable, inventory, and so on. To keep track of expenses, a number of additional accounts are needed, such as cost of goods sold, rent expense, salary expense, and repair expense. The same is true for revenues, liabilities, and other categories. A small organization might utilize only a few dozen accounts for its entire recordkeeping system. A large company could have thousands.

Based on the original Venetian model, the balance for each account is monitored in a form known as a **T-account** as displayed in Figure 4.2 "Common T-Accounts". This structure provides room for recording on both the left side (known as the **debit** side) and the right side (the **credit** side).

Figure 4.2 Common T-Accounts



One side of each T-account records increases; the other side indicates decreases. For over five hundred years, the following rules have applied.

The following are accounts where debits reflect an increase and credits a decrease:

- Expenses and losses
- Assets
- Dividends paid[1]

The following are accounts where credits reflect an increase and debits a decrease:

- Liabilities
- Capital stock
- Revenues and gains
- Retained earnings[2]

The debit and credit rules for these seven general types of accounts provide a short-hand method for recording the financial impact that a transaction has on any account. They were constructed in this manner so that the following would be true:

debits must always equal credits for every transaction.

At first, the debit and credit rules might seem completely arbitrary. However, they are structured to mirror the cause and effect relationship found in every transaction. This is the basis of what the Venetian merchants came to understand so long ago: every effect must have a cause.

To illustrate:

- Assume an asset (such as cash) increases. As shown above, that is recorded on the debit side of the specific asset's T-account. What could cause an asset to become larger? A reason must exist. A liability—possibly a bank loan—could have been incurred (recorded as a credit); capital stock could have been issued to an owner (a credit); revenue could have been earned from a sale (a credit); another asset could have been sold (a credit). The list of possible reasons is relatively short. In each case, the debit (increase) to the asset is caused by an equal and offsetting credit.

- Assume an asset (such as cash) decreases. This change is recorded on the credit side of the asset's T-account. What might cause this reduction? An expense could have been paid (recorded as a debit); a dividend could have been distributed to shareholders (a debit); a liability could have been extinguished (a debit); another asset could have been acquired (a debit). Once again, the cause and effect relationship is reflected; the debits equal the credits. Each effect is set equal and opposite to every potential cause.

There are only seven types of accounts. Therefore, a mastery of debit and credit rules can be achieved with a moderate amount of practice. Because of the fundamental position of debits and credits within every accounting system, this knowledge is well worth the effort required.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092609.html

Key Takeaway

Most companies participate in numerous transactions each day that must be examined and organized so that financial statements can be prepared. This process requires four steps: analyze, record, adjust, and report. Over five hundred years ago, double-entry bookkeeping was created as a mechanical process to facilitate this gathering and reporting of financial information. A T-account is maintained for each of the accounts (such as cash, accounts payable, and rent expense) to be reported by a company. The left side of the T-account is the debit side, and the right side is the credit. Expenses and losses, assets, and dividends paid increase with debits. Liabilities, revenues and gains, capital stock, and retained earnings increase with credits. Debits always equal credits because every transaction must have both an effect and a cause for that effect.

[1]One method to keep track of these accounts initially is to remember them as the "DEAD" accounts: **d**ebits increase, **e**xpenses and losses, **a**ssets, and **d**ividends paid. Quickly, though, through practice, such mnemonic devices will not be needed.

[2]Changes in the balance reported for retained earnings normally do not come as a direct result of a transaction. As discussed previously, this account reflects all the net income earned to date reduced by all dividend payments. Income is made up of revenues, expenses, gains, and losses. Accounting recognition of revenues and gains (which increase with credits) lead to a larger retained earnings balance. Expenses, losses, and dividends paid (which all increase with debits) reduce retained earnings. Consequently, credits cause an increase in retained earnings whereas debits produce a decrease.

4.4 Preparing Journal Entries

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Describe the purpose and structure of a journal entry.
2. Identify the purpose of a journal.
3. Define "trial balance" and indicate the source of its monetary balances.
4. Prepare journal entries to record the effect of acquiring inventory, paying salary, borrowing money, and selling merchandise.
5. Define "accrual accounting" and list its two components.
6. Explain the purpose of the revenue realization principle.
7. Explain the purpose of the matching principle.

Question: *In an accounting system, the impact of each transaction is analyzed and must then be recorded. Debits and credits are used for this purpose. How does the actual recording of a transaction take place?*

Answer: The effects produced on the various accounts by a transaction should be entered into the accounting system as quickly as possible so that information is not lost and mistakes have less time to occur. After analyzing each event, the financial changes caused by a transaction are initially recorded as a **journal entry**. A list of all recorded journal entries is maintained in a **journal** (also referred to as a **general journal**), which is one of the most important components within any accounting system. The journal is the diary of the company: the history of the impact of the financial events as they took place.

A journal entry is no more than an indication of the accounts and balances that were changed by a transaction.

Question: *Debit and credit rules are best learned through practice. In order to grasp the use of debits and credits, how should the needed practice begin?*

Answer: When faced with debits and credits, everyone has to practice at first. That is normal and to be expected. These rules can be learned quickly but only by investing a bit of effort. Earlier in this chapter, a number of transactions were analyzed to determine their impact on account balances. Assume now that these same transactions are to be recorded as journal entries. To provide a bit more information for this illustration, the reporting company will be a small farm supply store known as the Lawndale Company that is located in a rural area. For convenience, assume that the company incurs these transactions during the final few days of Year One, just prior to preparing financial statements.

Assume further that this company already has the account balances presented in Figure 4.3 "Balances Taken From T-accounts in Ledger" in its T-accounts before making this last group of journal entries. Note that the total of all the debit and credit balances do agree ($54,300) and that every account shows a positive balance. In other words, the figure being reported is either a debit or credit based on what makes that particular type of account increase. Few T-accounts contain negative balances.

This current listing of accounts is commonly referred to as a **trial balance**. Since T-accounts are kept together in a ledger (or general ledger), a trial balance reports the individual balances for each T-account maintained in the company's ledger.

Figure 4.3 Balances Taken From T-accounts in Ledger

Lawndale Company
Trial Balance (prior to recording new transactions)

Account	Debit Balance	Credit Balance
Cash	$20,000	
Accounts receivable	9,000	
Inventory	8,000	
Insurance payable		$700
Accounts payable		2,600
Notes payable (long term)		10,000
Capital stock		12,000
Retained earnings (beginning of year)		7,000
Sales of merchandise		22,000
Cost of goods sold	12,000	
Rent expense	3,600	
Salary expense	1,000	
Insurance expense	700	
Totals	$54,300	$54,300

Question: *Assume that after the above balances were determined, several additional transactions took place. The first transaction analyzed at the start of this chapter was the purchase of inventory on credit for $2,000. This acquisition increases the record of the amount of inventory being held while also raising one of the company's liabilities, accounts payable. How is the acquisition of inventory on credit recorded in the form of a journal entry?*

Answer: Following the transactional analysis, a journal entry is prepared to record the impact that the event has on the Lawndale Company. Inventory is an asset that always uses a debit to note an increase. Accounts payable is a liability so that a credit indicates that an increase has occurred. Thus, the following journal entry is appropriate[2].

Figure 4.4 Journal Entry 1: Inventory Acquired on Credit

Inventory	2,000		(increase an asset—debit)
Accounts Payable		2,000	(increase a liability—credit)

Notice that the word "inventory" is physically on the left of the journal entry and the words "accounts payable" are indented to the right. This positioning clearly shows which account is debited and which is credited. In the same way, the $2,000 numerical amount added to the inventory total appears on the left (debit) side whereas the $2,000 change in accounts payable is clearly on the right (credit) side.

Preparing journal entries is obviously a mechanical process but one that is fundamental to the gathering of information for financial reporting purposes. Any person familiar with accounting procedures could easily "read" the above entry: based on the debit and credit, both inventory and accounts payable have gone up so a purchase of merchandise for $2,000 on credit is indicated. Interestingly, with translation of the words, a Venetian merchant from the later part of the fifteenth century would be capable of understanding the information captured by this journal entry even if prepared by a modern company as large as Xerox or Kellogg.

Question: *As a second example, the Lawndale Company pays its employees their regular salary of $300 for work performed during the past week. If no entry has been recorded previously, what journal entry is appropriate when a salary payment is made?*

Answer: Because no entry has yet been made, neither the $300 salary expense nor the related salary payable already exists in the accounting records. Apparently, the $1,000 salary expense appearing in the above trial balance reflects earlier payments made during the period by the company to its employees.

Payment is made here for past work so this cost represents an expense rather than an asset. Thus, the balance recorded as salary expense goes up by this amount while cash decreases. Increasing an expense is always shown by means of a debit; decreasing an asset is reflected through a credit.

Figure 4.5 Journal Entry 2: Salary Paid to Employees

Salary Expense	300		(increase an expense—debit)
Cash		300	(decrease an asset—credit)

In practice, the date of each transaction could also be included here. For illustration purposes, this extra information is not necessary.

Question: *Assume $9,000 is borrowed from a local bank when officials sign a new note payable that will have to be repaid in several years. What journal entry is prepared by a company's accountant to reflect the inflow of cash received from a loan?*

Answer: As always, recording begins with an analysis of the transaction. Here, cash increases as the result of the incurred debt (notes payable). Cash—an asset—increases $9,000, which is shown as a debit. The company's notes payable balance also goes up by the same amount. As a liability, the increase is recorded through a credit. By using debits and credits in this way, the financial effects are entered into the accounting records.

Figure 4.6 Journal Entry 3: Money Borrowed from Bank

Cash	9,000		(increase an asset—debit)
Notes Payable		9,000	(increase a liability—credit)

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092610.html

Question: *In Transaction 1, inventory was bought for $2,000. That entry is recorded above. Assume now that these goods are sold for $5,000 to a customer on credit. How is the sale of merchandise on account recorded in journal entry form?*

Answer: As discussed previously, two events really happen when inventory is sold. First, the sale is made and, second, the customer takes possession of the merchandise from the company. Assuming again that a perpetual inventory system is in use, both the sale and the related expense are recorded immediately. In the initial part of the transaction, the accounts receivable balance goes up $5,000 because the money from the customer will not be collected until a later date. The increase in this asset is shown by means of a debit. The new receivable resulted from a sale. Revenue is also recorded (by a credit) to indicate the cause of that effect.

Figure 4.7 Journal Entry 4A: Sale Made on Account

Accounts Receivable	5,000		(increase an asset—debit)
Sales of Merchandise		5,000	(increase revenue—credit)

At the same time, inventory costing $2,000 is surrendered by the company. The reduction of any asset is recorded through a credit. The expense resulting from the asset outflow has been identified previously as "cost of goods sold." Like any expense, it is entered into the accounting system through a debit.

Figure 4.8 Journal Entry 4B: Merchandise Acquired by Customers

Cost of Goods Sold	2,000		(increase an expense—debit)
Inventory		2,000	(decrease an asset—credit)

Question: *In the above transaction, the Lawndale Company made a sale but the cash will not be collected until some later date*. *Why is revenue reported at the time of sale rather than when the cash is eventually collected? Accounting is conservative*. *Thus, delaying recognition of sales revenue (and the resulting increase in net income) until the $5,000 is physically received might have been expected*.

Answer: This question reflects a common misconception about the information conveyed through financial statements. As shown above in Journal Entry 4A, recognition of revenue is not tied directly to the receipt of cash. One of the most important elements comprising the structure of U.S. GAAP is **accrual accounting**, which serves as the basis for timing the reporting of revenues and expenses. Because of the direct impact on net income, such recognition issues are among the most complicated and controversial in accounting. The accountant must always determine the appropriate point in time for reporting each revenue and expense. Accrual accounting provides standard guidance (in the United States and throughout much of the world).

Accrual accounting is really made up of two distinct components. The **revenue realization principle** provides authoritative direction as to the proper timing for the recognition of revenue. The **matching principle** establishes guidelines for the reporting of expenses. These two principles have been utilized for decades in the application of U.S. GAAP. Their importance within financial accounting can hardly be overstated.

Revenue realization principle. Revenue is properly recognized at the point that (1) the earning process needed to generate the revenue is substantially complete and (2) the amount eventually to be received can be reasonably estimated. As the study of financial accounting progresses into more complex situations, both of these criteria will require careful analysis and understanding.

Matching principle. Expenses are recognized in the same time period as the revenue they help create. Thus, if specific revenue is to be recognized in the year 2019, any associated costs should be reported as expenses in that same time period. Expenses are matched with revenues. However, when a cost cannot be tied directly to identifiable revenue, matching is not possible. In those cases, the expense is recognized in the most logical time period, in some systematic fashion, or as incurred—depending on the situation.

For the revenue reported in Journal Entry 4A, assuming that the Lawndale Company has substantially completed the work required of this sale and $5,000 is a reasonable estimate of the amount that will be collected, recognition at the time of sale is appropriate. Because the revenue is recognized at that moment, the related expense (cost of goods sold) should also be recorded as can be seen in Journal Entry 4B.

Accrual accounting provides an excellent example of how U.S. GAAP guides the reporting process in order to produce fairly presented financial statements that can be understood by all decision makers around the world.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092642.html

Key Takeaway

After the financial effects are analyzed, the impact of each transaction is recorded within a company's accounting system through a journal entry. The purchase of inventory, payment of a salary, and borrowing of money are all typical transactions that are recorded by means of debits and credits. All journal entries are maintained within the company's journal. The timing of this recognition is especially important in connection with revenues and expenses. Accrual accounting provides formal guidance within U.S. GAAP. Revenues are recognized when the earning process is substantially complete and the amount to be collected can be reasonably estimated. Expenses are recognized based on the matching principle, which holds that they should be reported in the same period as the revenue they help generate.

[1]In larger organizations, similar transactions are often grouped, summed, and recorded together for efficiency. For example, all cash sales at one store might be totaled automatically and recorded at one time at the end of each day. To help focus on the mechanics of the accounting process, the journal entries recorded for the transactions in this textbook will be prepared individually.

[2]The parenthetical information is included here only for clarification purposes and does not appear in a true journal entry.

Chapter 5: Why Must Financial Information Be Adjusted Prior to the Production of Financial Statements?

Video Clip

(click to see video)

Joe introduces Chapter 5 “Why Must Financial Information Be Adjusted Prior to the Production of Financial Statements?” and speaks about the course in general.

5.1 The Need for Adjusting Entries

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Explain the purpose and necessity of adjusting entries.
2. List examples of several typical accounts that require adjusting entries.
3. Define an "accrued expense."
4. Provide examples of adjusting entries for various accrued expenses.
5. Describe the reason that accrued expenses often require adjusting entries but not in every situation.

Question: The first two steps of the accounting process were identified in Chapter 4 "How Does an Organization Accumulate and Organize the Information Necessary to Prepare Financial Statements? " as "analyze" and "record." A transaction occurs and the financial effects are ascertained through careful analysis. Once determined, the impact an event has on specific accounts is recorded in the form of a journal entry. Each of the debits and credits is then posted to the corresponding T-account located in the ledger. As needed, current balances can be determined for any or all of these accounts by netting the debits and credits. It is a system as old as the painting of the Mona Lisa.

The third step in this process was listed as "adjust." Why do ledger account balances require adjustment? Why are the T-account totals found in Figure 4.3 "Balances Taken From T-accounts in Ledger" not simply used by the accountant to produce financial statements for the reporting organization?

Answer: Financial events take place throughout the year. As indicated, journal entries are recorded with the individual debits and credits then entered into the proper T-accounts. However, not all changes in a company's accounts occur as a result of physical events. Balances frequently increase or decrease simply because of the passage of time. Or the impact is so gradual that producing individual journal entries is not reasonable. For example, salary is earned by employees every day (actually every minute) but payment is not usually made until the end of the week or month. Other expenses, such as utilities, rent, and interest, are incurred over time. Supplies such as pens and envelopes are used up on an ongoing basis. Unless an accounting system is programmed to record tiny incremental changes, the financial effects are not captured as they occur.

Following each day of work, few companies take the trouble to record the equivalent amount of salary or other expense and the related liability. When a pad of paper is consumed within an organization, debiting supplies expense for a dollar or two and crediting supplies for the same amount hardly seems worth the effort.

Prior to producing financial statements, the accountant must search for all such changes that have been omitted.

These additional increases or decreases are also recorded in a debit and credit format (often called **adjusting entries** rather than journal entries) with the impact then posted to the appropriate ledger accounts. The process continues until all balances are properly stated. These adjustments are a prerequisite step in the preparation of financial statements. They are physically identical to journal entries recorded for transactions but they occur at a different time and for a different reason.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092644.html

Question: *Adjusting entries are used to update the ledger for any financial changes that have occurred gradually over time and not recorded through a regular journal entry. What kinds of adjustments are normally needed before financial statements are prepared?*

Answer: A variety of adjusting entries will be examined throughout the remainder of this textbook. One of the accountant's primary responsibilities is the careful study of all financial information to ensure that it is all fairly presented before being released. Such investigation can lead to the preparation of numerous adjusting entries. Here, in Chapter 5 "Why Must Financial Information Be Adjusted Prior to the Production of Financial Statements?", only the following four general types of adjustments are introduced. In later chapters, many additional examples will be described and analyzed.

- Accrued expenses (also referred to as accrued liabilities)
- Prepaid expenses
- Accrued revenue
- Unearned revenue (also referred to as deferred revenue)

Usually, at the start of the adjustment process, the accountant prepares an updated trial balance to provide a visual, organized representation of all ledger account balances. This listing aids the accountant in spotting figures that might need adjusting in order to be fairly presented. Therefore, Figure 5.1 "Updated Trial Balance" takes the ending account balances for the Lawndale Company found in the ledger presented in Figure 4.3 "Balances Taken From T-accounts in Ledger" and puts them into the form of a trial balance.

Figure 5.1 Updated Trial Balance

Lawndale Company Trial Balance (after recording all new transactions)		
Account	Debit Balance	Credit Balance
Cash	$41,400	
Accounts receivable	9,000	
Inventory	8,000	
Prepaid rent	4,000	
Truck	40,000	
Accounts payable		$2,600
Notes payable		49,000
Unearned revenue		3,000
Capital stock		31,000
Retained earnings, beginning of year		7,000
Dividends paid	600	
Sales of merchandise		27,000
Cost of goods sold	14,000	
Rent expense	3,600	
Salary expense	1,300	
Insurance expense	700	
Gain on sale of land		3,000
Totals	$122,600	$122,600

Question: *The first adjustment listed is an* **accrued expense**. *In Chapter 4 "How Does an Organization Accumulate and Organize the Information Necessary to Prepare Financial Statements? ", the word "accrue" was defined as "to grow." Thus, an accrued expense is one that increases gradually over time. As indicated previously, some companies program their accounting systems to record such expenses as they are incurred. This accrual process reduces the need for separate adjusting entries. Other companies make few, if any, accruals and update all balances through numerous adjustments. The recording process for such expenses should be designed to meet the informational needs of company officials. Some prefer to have updated balances readily available in the ledger while others are inclined to wait for periodic financial reports to be issued. What are some typical accrued expenses and what is the appropriate adjusting entry if they have not been previously recorded by the accounting system?*

Answer: If a reporting company's accounting system recognizes an expense as it grows, no adjustment is necessary. The balances are recorded properly. They are ready to be included in financial statements. Thus, when statements are prepared, the accountant only needs to search for accrued expenses that have not yet been recognized.

Numerous expenses do get slightly larger each day until paid, including salary, rent, insurance, utilities, interest, advertising, income taxes, and the like. For example, on its December 31, 2008, balance sheet, the Hershey Company reported accrued liabilities of approximately $504 million. In the notes to the financial statements, this amount was explained as debts owed on that day for payroll, compensation and benefits, advertising and promotion, and other accrued expenses.

Assume, for illustration purposes, that the accountant reviews the trial balance presented in Figure 5.1 "Updated Trial Balance" and realizes that utility expenses (such as electricity and water) have not been recorded since the most recent payment. Assume that the Lawndale Company currently owes $900 for those utilities. The following adjustment is needed before financial statements are created. It is an adjusting entry because no physical event took place; this liability simply grew over time and has not yet been paid.

Figure 5.2 Adjusting Entry 1: Amount Owed for Utilities

Utilities Expense	900		(increase an expense—debit)
Utilities Payable (or Accrued Liabilities)		900	(increase a liability—credit)

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092630.html

Key Takeaway

Adjusting entries are necessary to update all account balances before financial statements can be prepared. These adjustments are not the result of physical events or transactions but are rather caused by the passage of time or small changes in account balances. The accountant examines a current listing of accounts—known as a trial balance—to identify amounts that need to be changed prior to the preparation of financial statements. Although numerous adjustments are studied in this textbook, four general types are especially common: accrued expenses, prepaid expenses, accrued revenues, and unearned revenues. Any expense (such as salary) that grows gradually over time but has not yet been paid is known as an accrued expense. If not automatically recorded by the accounting system, it must be entered into the records by adjustment prior to producing financial statements.

5.2 Preparing Various Adjusting Entries

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Explain the need for an adjusting entry in the reporting of prepaid expenses and be able to prepare that adjustment.
2. Explain the need for an adjusting entry in the reporting of accrued revenue and be able to prepare that adjustment.
3. Describe the difficulty of determining when the earning process for revenue is substantially complete and discuss possible resolutions.

Question: *The second adjustment to be considered here involves the handling of* **prepaid expenses**. *In the transactions that were recorded in the previous chapter, Journal Entry 10 reported a $4,000 payment made in advance for four months of rent to use a building. An asset—prepaid rent—was recorded through the normal accounting process. This account is listed on the trial balance in [Figure 5.1 "Updated Trial Balance"](). Why might a year-end adjusting entry be needed in connection with a prepaid expense?*

Answer: During these four months, the Lawndale Company will use the rented facility to help generate revenue. Over that time, the future economic benefit established by the payment gradually becomes a past benefit. The asset literally changes into an expense day by day. For illustrative purposes, assume that one month has now passed since the original payment. This month of benefit provided by the rent ($1,000 or $4,000/four months) no longer exists; it has been consumed.

As a preliminary step in preparing financial statements, an adjusting entry is needed to reclassify $1,000 from the asset into an expense account. This adjustment leaves $3,000 in the asset (for the remaining three months of rent on the building) while $1,000 is now reported as an expense (for the previous one month of rent).

Figure 5.3 Adjusting Entry 2: Previously Rented Facility Is Used

Rent Expense	1,000		(increase an expense—debit)
Prepaid Rent		1,000	(decrease an asset—credit)

The basic purpose of adjusting entries is to take whatever amounts reside in the ledger and align them with the requirements of U.S. generally accepted accounting principles (U.S. GAAP). For this illustration, the original $4,000 payment was classified as a prepaid rent and the adjustment above was created in response to that initial entry.

In recording transactions, some accounting systems mechanically handle events in a different manner than others. Thus, construction of an adjusting entry always depends on the recording that previously took place. To illustrate, assume that when this $4,000 payment was made, the company's computer program had been designed to enter a debit to rent expense rather than to prepaid rent. All money spent for rent was automatically recorded as rent expense. This initial accounting has no impact on the final figures to be reported but does alter the adjustment process.

An adjusting entry still needs to be prepared so that the expense appearing on the income statement is $1,000 (for the past one month) while the asset on the balance sheet is shown as $3,000 (for the next three months). If the entire cost of $4,000 is in rent expense, the following alternative is necessary to arrive at the proper balances. It shifts $3,000 out of the expense and into the asset.

Figure 5.4 Adjusting Entry 3: Alternative Based on a Different Initial Recording

Prepaid Rent	3,000		(increase an asset—debit)
Rent Expense		3,000	(decrease an expense—credit)

This entry leaves $1,000 in expense and $3,000 as the asset. Regardless of the account, the accountant first determines the balance that is present in the ledger and then creates the specific adjustment needed to arrive at fairly presented figures.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092645.html

Question: *Accrued revenue is the third general type of adjustment to be covered here. Based on the title, this revenue is one that grows gradually over time. If not recorded by a company's accounting system, updating is necessary before financial statements are prepared. What adjustment is used to recognize accrued revenue that has not previously been recorded?*

Answer: Various types of revenue are earned as time passes rather than through a physical event such as the sale of inventory. To illustrate, assume that a customer comes to the Lawndale Company five days before the end of the year and asks for assistance. The customer must be away for the next thirty days and wants company employees to feed, water, and care for his horses during the period of absence. Everything needed for the job is available at the customer's farm; Lawndale just has to provide the service. The parties agree that the company will receive $100 per day for this work with payment to be made upon the person's return.

No asset changes hands at the start of this task. Thus, the company's accounting system is not likely to make any entry until payment is eventually received. However, assume that after the first five days of work, the company is ready to prepare financial statements and needs to recognize all revenue earned to date. The service to this customer has been carried out for five days at a rate of $100 per day. The company has performed the work to earn

$500, an amount that will not be received until later. This receivable and revenue should be recognized through an adjusting entry so that the reported financial figures are fairly presented. The earning process for the $500 occurred this year and should be recorded in this year.

Figure 5.5 Adjusting Entry 4: Revenue Is Earned for Work Done

Accounts Receivable	500		(increase an asset—debit)
Sales of Services		500	(increase a revenue—credit)

No recognition is needed for cost of goods sold. Inventory is not being sold but rather is a service. The $500 receivable will be removed in the subsequent period when the customer eventually pays the company for the services rendered.

Question: *As discussed in an earlier chapter, the revenue realization principle (within accrual accounting) provides formal guidance for the timing of revenue reporting. It states in part that the earning process must be substantially complete before revenue can be recognized. That seems reasonable. In the above example, the work has only been performed for five days out of a total of thirty. That is not substantially complete. Why is any accrued revenue recognized if the earning process is not substantially complete?*

Answer: This question draws attention to a difficult problem that accountants face frequently in creating a fair portrait of a company. The proper recognition of revenue is one of the most challenging tasks encountered in financial accounting. Here, the simplest way to resolve this issue is to consider the nature of the task to be performed.

Is this job a single task to be carried out by the company over thirty days or is it thirty distinct tasks to be handled once a day over this period of time?

If the work of feeding and caring for the horses is one large task like painting a house, then the earning process is only 5/30 finished at the moment and not substantially complete. No revenue is recognized until the work has been performed for twenty-five more days. The previous adjusting entry is not warranted.

Conversely, if this assignment is thirty separate tasks, then five of them are substantially complete and revenue of $500 is properly recorded by the above entry. Unfortunately, the distinction is not always clear. Because accounting is conservative, revenue should never be recognized unless evidence predominates that the individual tasks are clearly separate events.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092646.html

Question: *In practice, how does an accountant determine whether a specific job is substantially complete? Because of the direct impact on net income, this judgment must be critical in financial reporting*.

Answer: Accountants spend a lot of time searching for credible evidence as to the true nature of the events they encounter. That can be a challenge. Their goal is to ensure that all information included in financial statements is presented fairly according to U.S. GAAP.

Is a job substantially complete so that revenue can be recognized or not?

That question can often be difficult to answer. Here is one technique that might be applied in analyzing this particular example. Assume that after five days, Lawndale had to quit feeding the customer's horses for some legitimate reason. Should the company be able to demand and collect all $500 for the work done to that point? If so, then those five days are distinct tasks that have been completed. However, if no money would be due based on working just five days, substantial completion has not been achieved by the services performed. Thus, revenue recognition would be inappropriate.

In Adjusting Entry 3, the assumption is made that the daily tasks are separate and that the company could collect for the work accomplished to date. However, this type of judgment can be extremely difficult in the real world. It is often the product of much thought and discussion. The impact on the financial statements can be material, which increases pressure on the accountant.

Students often enter into a financial accounting course believing that little is required other than learning set rules and then following them mechanically. As will be demonstrated many times in this textbook, nothing ever replaces the need for experienced judgment on the part of the accountant.

Key Takeaway

To align reported balances with the rules of accrual accounting, adjusting entries are created as a step in the preparation of financial statements. Prepaid expenses are normally recorded first as assets and then reclassified to expense as time passes to satisfy the matching principle. The mechanics of this process will vary somewhat based on the initial recording of the payment. Accrued revenues and the corresponding receivables are recognized when the earning process is deemed to be substantially complete. The time at which this benchmark is achieved often depends on whether a single job or a collection of independent tasks is under way. As with so many areas of financial reporting, that decision can rely heavily on professional judgment.

5.3 Preparing Financial Statements Based on Adjusted Balances

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Explain the need for an adjusting entry in the reporting of unearned revenue and be able to prepare that adjustment.
2. Prepare an income statement, statement of retained earnings, and balance sheet based on the balances in an adjusted trial balance.
3. Explain the purpose and construction of closing entries.

The last adjusting entry to be covered at this time is unearned (or deferred) revenue. Some companies operate in industries where money is received first and then earned gradually over time. Newspaper and magazine businesses, for example, are paid in advance by their subscribers and advertisers. The earning process becomes substantially complete by the subsequent issuance of their products. Thus, the December 28, 2008, balance sheet for the New York Times Company reported a liability titled "unexpired subscriptions" of $81 million. This balance represents payments collected from customers who have not yet received their newspapers.

Question: In Journal Entry 13 in Chapter 4 "How Does an Organization Accumulate and Organize the Information Necessary to Prepare Financial Statements? ", the Lawndale Company reported receiving $3,000 for services to be rendered at a later date. An unearned revenue account was recorded as a liability for that amount and appears in the trial balance in Figure 5.1 "Updated Trial Balance". When is an adjusting entry needed in connection with the recognition of previously unearned revenue?

Answer: As indicated, unearned revenue represents a liability recognized when money is received before work is done. After any portion of the required service is carried out so that the earning process is substantially complete, an appropriate amount is reclassified from unearned revenue on the balance sheet to revenue on the income statement. For example, in connection with the $3,000 payment collected by Lawndale, assume that all the work necessary to recognize the first $600 has now been performed. To fairly present this information, an adjusting entry is prepared to reduce the liability and recognize the earned revenue.

Figure 5.6 Adjusting Entry 5: Money Previously Received Has Now Been Earned

Unearned Revenue	600		(decrease a liability—debit)
Sales of Services		600	(increase a revenue—credit)

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092631.html

Question: *After all adjusting entries have been recorded in the journal and posted to the appropriate T-accounts in the ledger, what happens next in the accounting process?*

Answer: At this point, the accountant believes that all account balances are fairly presented because no material misstatements exist according to U.S. GAAP. As one final check, an adjusted trial balance is produced for a last, careful review. Assuming that no additional concerns are noticed, the accountant prepares an income statement, a statement of retained earnings, and a balance sheet.

The basic financial statements are then completed by the production of a statement of cash flows. In contrast to the previous three, this remaining statement does not report ending ledger account balances but rather discloses the various changes occurring during the period in the composition of the cash account. As indicated in Chapter 3 "In What Form Is Financial Information Actually Delivered to Decision Makers Such as Investors and Creditors?", all cash flows are classified as resulting from operating activities, investing activities, or financing activities.

The reporting process is then completed by the preparation of the explanatory notes that always accompany a set of financial statements.

The final trial balance for the Lawndale Company (including the four adjusting entries produced above) is presented in the appendix to this chapter. After that, each of the individual figures is appropriately placed within the first three financial statements. Revenues and expenses appear in the income statement, assets and liabilities in the balance sheet, and so on. The resulting statements are also exhibited in the appendix for illustrative purposes. No attempt has been made here to record all possible adjusting entries. For example, no income taxes have been recognized and interest expense has not been accrued in connection with notes payable. Depreciation expense of noncurrent assets with finite lives (the truck, in the company's trial balance) will be discussed in detail in a later chapter. However, these illustrations are sufficient to demonstrate the end result of the accounting process as well as the basic structure used for the income statement, statement of retained earnings, and balance sheet.

The statement of cash flows for the Lawndale Company cannot be created based solely on the limited information available in this chapter concerning the cash account. Thus, it has been omitted. Complete coverage of the preparation of a statement of cash flows will be presented in Chapter 17 "In a Set of Financial Statements, What Information Is Conveyed by the Statement of Cash Flows?" of this textbook.

Question: *Analyze, record, adjust, and report—the four basic steps in the accounting process. Is the work year complete for the accountant after financial statements are prepared?*

Answer: One last mechanical process needs to be mentioned. Whether a company is as big as Microsoft or as small as the local convenience store, the final action performed each year by the accountant is the preparation of **closing entries**. Several types of accounts—specifically, revenues, expenses, gains, losses, and dividends paid—reflect the various changes that occur in a company's net assets but just for the current period. In order for the accounting system to start measuring the effects for each new year, all of these specific T-accounts must be returned to a zero balance after the annual financial statements are produced.

- Final credit totals existing in every revenue and gain account are closed out by recording equal and off-setting debits.
- Similarly, ending debit balances for expenses, losses, and dividends paid require a credit entry of the same amount to return each of these T-accounts to a zero balance.

After these "temporary" accounts are closed at year's end, the resulting single figure is the equivalent of the net income reported for the year less dividends paid. This net effect is recorded in the retained earnings T-account. The closing process effectively moves the balance for each revenue, expense, gain, loss, and dividend paid into retained earnings. In the same manner as journal entries and adjusting entries, closing entries are recorded initially in the company's journal and then posted to the ledger. As a result, the beginning retained earnings balance for the year is updated to arrive at the ending total reported on the balance sheet.

Assets, liabilities, capital stock, and retained earnings all start out each year with a balance that is the same as the ending figure reported on the previous balance sheet. Those accounts are not designed to report an impact occurring just during the current year. In contrast, revenues, expenses, gains, losses, and dividends paid all begin the first day of each year with a zero balance—ready to record the events of this new period.

Key Takeaway

Companies occasionally receive money for services or goods before they are provided. In such cases, an unearned revenue is recorded as a liability to indicate the company's obligation to its customer. Over time, as the earning process becomes substantially complete, the unearned revenue is reclassified as a revenue through adjusting entries. After this adjustment and all others are prepared and recorded, an adjusted trial balance is created and those figures are then used to produce financial statements. Finally, closing entries are prepared for all revenues, expenses, gains, losses, and dividends paid. Through this process, all of these T-accounts are returned to zero balances so that recording for the new year can begin. The various amounts in these temporary accounts are moved to retained earnings. Thus, its beginning balance for the year is increased to equal the ending total reported on the company's balance sheet.

Talking with a Real Investing Pro (Continued)

Following is a continuation of our interview with Kevin G. Burns.

Question: Large companies have millions of transactions to analyze, classify, and record so that they can produce financial statements. That has to be a relatively expensive process that produces no income for the company. From your experience in analyzing companies and their financial statements, do you think companies should spend more money on their accounting systems or would they be wise to spend less and save their resources?

Kevin Burns: Given the situations of the last decade ranging from the accounting scandals of Enron and WorldCom to recent troubles in the major investment banks, the credibility of financial statements and financial officers has eroded significantly. My view is that—particularly today—transparency is absolutely paramount and the more detail the better. Along those lines, I think any amounts spent by corporate officials to increase transparency in their financial reporting, and therefore improve investor confidence, is money well spent.

Video Clip

" href="http://app.wistia.com/embed/medias/2b434d5327" class="replaced-iframe">(click to see video)

Unnamed Author talks about the five most important points in Chapter 5 “Why Must Financial Information Be Adjusted Prior to the Production of Financial Statements?”.

5.4 Chapter Appendix

Final Trial Balance and Financial Statements

Figure 5.7 Appendix A

Lawndale Company Final Trial Balance—2009 (including four adjusting entries)

Account	Debit Balance	Credit Balance
Cash	$41,400	
Accounts receivable	9,500	
Inventory	8,000	
Prepaid rent	3,000	
Truck	40,000	
Accounts payable		$2,600
Utilities payable		900
Unearned revenue		2,400
Notes payable		49,000
Capital stock		31,000
Retained earnings, beginning of year		7,000
Dividends paid	600	
Sales of merchandise		27,000
Sales of services		1,100
Cost of goods sold	14,000	
Rent expense	4,600	
Salary expense	1,300	
Utilities expense	900	
Insurance expense	700	
Gain on sale of land		3,000
Totals	$124,000	$124,000

Lawndale Company Income Statement for Year Ended December 31, 2009

Revenues:		
Sales of merchandise	$27,000	
Sales of services	1,100	
Total revenues		$28,100
Expenses:		
Cost of goods sold	14,000	
Rent	4,600	
Salary	1,300	
Utilities	900	
Insurance	700	
Total expenses		(21,500)
Gain on sale of land		3,000
Net income		$9,600

Figure 5.8 Appendix B[1]

Lawndale Company Statement of Retained Earnings for Year Ended December 31, 2009

Retained earnings balance, January 1, 2009		$7,000
Net income reported for 2009	$9,600	
Dividends distributed during 2009	600	
Net income less dividends for 2009		9,000
Retained earnings balance, December 31, 2009		$16,000

Lawndale Company Balance Sheet, December 31, 2009

	Assets	
Current Assets		
Cash	$41,400	
Accounts receivable	9,500	
Inventory	8,000	
Prepaid rent	3,000	
Total current assets		$61,900
Noncurrent Assets		
Truck		40,000
Total assets		$101,900

Liabilities and Stockholders' Equity

	Liabilities	
Current Liabilities		
Accounts payable	$2,600	
Utilities payable	900	
Unearned revenue	2,400	
Total current liabilities		$5,900
Noncurrent Liabilities		
Notes payable		49,000
Total liabilities		$54,900
	Stockholders' Equity	
Capial Stock	$31,000	
Retained Earnings	16,000	
Total stockholders' equity		$47,000
Total liabilities and stockholders' equity		$101,900

[1]In a subsequent chapter, the reporting of noncurrent assets with finite lives will be covered in detail. The cost of such assets is subject to depreciation over their estimated useful lives so that a net book value is reported that falls each period. Therefore, the $40,000 is used here simply to illustrate the placement of the balances.

5.5 End-of-Chapter Exercises

Questions

1. What is the purpose of adjusting entries?
2. Name the four general types of adjustments.
3. Give three examples of accrued expenses.
4. Briefly explain why it is difficult for accountants to determine whether or not revenue has been earned if the sales process is not complete.
5. Give an example of business or industry where customers usually pay for the product or service in advance.
6. What type of account is unearned revenue?
7. When should a company reclassify unearned revenue to revenue?
8. Why do companies produce a second trial balance? When is this second trial balance prepared?
9. Why do accountants prepare closing entries?
10. Into which account are revenues and expenses closed?

True or False

1. ____ Determining when to recognize revenue can be difficult for accountants.
2. ____ Only permanent accounts are closed at the end of the financial statement cycle.
3. ____ Revenue may not be recorded until cash is collected.
4. ____ Some changes to accounts occur because of the passage of time.
5. ____ Accountants do not have to exercise much judgment because there are so many rules to follow.
6. ____ Assets, liabilities and owners' equity accounts will start each financial statement cycle with the same balance they had at the end of the previous cycle.
7. ____ The word "accrue" means "to grow."
8. ____ Companies have some discretion in how and when they record accruals.
9. ____ The purpose of adjusting entries is to bring the balance in temporary accounts to zero at the end of the reporting cycle.
10. ____ Only one trial balance is prepared during a financial statement cycle.

Multiple Choice

1. Which of the following accounts would be closed at the end of the financial statement cycle?
    1. Accounts receivable
    2. Accounts payable
    3. Cost of goods sold
    4. Unearned revenue
2. Jenkins Company received $600 from a client in May for work Jenkins would perform during May and June. What entry should Jenkins make on May 31 if one-third of the work is complete on that date?
    1. Figure 5.9

Cash	600	
Unearned Revenue		600

    2. Figure 5.10

Unearned Revenue	200	
Revenue		200

    3. Figure 5.11

Cash	600	
Revenue		600

    4. Figure 5.12

Unearned Revenue	600	
Revenue		600

3. Which of the following accounts would increase retained earnings when closed into it?
    1. Dividends
    2. Sales revenue
    3. Loss of sale of land
    4. Rent expense
4. Which of the following is **not** one of the four types of adjustments?
    1. Prepaid revenue
    2. Accrued expenses

3. Unearned revenue
4. Prepaid expenses

5. In September 20X3, LaToya Corporation paid for insurance for the next six months in the amount of $42,000. On December 31, LaToya's accountant forgot to make the adjusting entry that was needed. Which of the following is true?
    1. Assets are understated by $42,000.
    2. Net income is understated by $14,000.
    3. Expenses are overstated by $42,000.
    4. Net income is overstated by $28,000.

Problems

1. Determine if the following adjusting entries are
    - accrued expense (AE)
    - prepaid expense (PE)
    - accrued revenue (AR)
    - unearned revenue (UR)

    1. _____ Atlas Magazine was previously prepaid $400,000 by subscribers and has delivered half of the magazines ordered.
    2. _____ Hornsby Company agreed to provide 1,000 units of its product to Michaels Inc. and has substantially completed the agreement.
    3. _____ Nancy and Sons owes its employees $30,000 for work done over the past two weeks.
    4. _____ Replay Inc. advertised on TV 44 during the month of April, but has not yet made an entry to record the event.
    5. _____ Centurion Company paid Reliable Insurance Company $54,000 for insurance for twelve months, six of which have passed.
    6. _____ Reliable Insurance Company received a payment of $54,000 for insurance for twelve months from Centurion Company and six months have passed.

2. Determine if the following transactions for Marlin Corporation require an adjustment or not. If an adjusting entry is required, give the correct entry.
    1. At the beginning of the month, Marlin agreed to perform services for the next three months for Catsui Corporation for $30,000 per month. Catsui paid Marlin $90,000 in advance. One month has now passed.
    2. Marlin pays its employees every two weeks. At the end of the month, Marlin owes its employees $480,000, but will not pay them until the following week.
    3. Marlin paid $300,000 for rent at the beginning of the month by debiting prepaid rent and crediting cash. The $300,000 covered six months of occupancy, but only one month has passed.
    4. At the beginning of the month, Marlin agreed to perform services for Ryland Company for

$16,000 per month for the next six months. Ryland has not yet paid any cash to Marlin and the work is not substantially complete.

3. Keating Inc. rents its headquarters from Starling Enterprises for $10,000 per month. On September 1, 20XX, Keating pays Starling $60,000 for six months worth of rent.

    1. Record the entry that Keating Inc. would make on September 1 when they pay Starling.
    2. Record the entry that Starling Enterprises would make on September 1 when they receive the rent payment from Keating.
    3. Record the adjusting entry that Keating would make on December 31, 20XX, as the company prepares its annual financial statements.
    4. Record the adjusting entry that Starling would make on December 31, 20XX, as the company prepares its annual financial statements.

4. Leon Jackson is ecstatic! First National Bank just approved a loan for Leon to start a Web site design and maintenance business called Webworks. He is now ready to purchase his needed equipment, hire his administrative help, and begin designing sites. During June, his first month of business, the following occur:

    a. Webworks signs a note at the bank and is given $10,000 cash.

    b. Leon deposits $2,000 of his own money into Webworks's checking account.

    c. Webworks purchases a new computer and additional equipment for $3,000.

    d. Webworks purchases supplies worth $200 on account that should last Webworks two months.

    e. Webworks hires Nancy Po to assist with administrative tasks. She will charge $100 per Web site for her assistance.

    f. Webworks begins working on his first two Web sites, one for Juan Sanchez, a friend of his dad's and the other for Pauline Smith, a local businesswoman.

    g. Webworks completes the site for Mr. Sanchez and sends him a bill for $600.

    h. Webworks completes the site for Ms. Smith and sends her a bill for $450.

    i. Webworks collects $600 in cash from Mr. Sanchez.

    j. Webworks pays Nancy $100 for her work on Mr. Sanchez's Web site.

    k. Webworks receives $500 in advance to work on a Web site for a local restaurant. Work on the site will not begin until July.

    l. Webworks pays taxes of $200 in cash.

    Required:

    A. Prepare journal entries for the above events if needed.

    B. Post the journal entries to T-accounts.

    C. Prepare an unadjusted trial balance for Webworks for June.

    D. Prepare adjusting entries for the following and post them to your T-accounts, adding any additional T-accounts as necessary.

    m. Webworks owes Nancy $100 for her work on Ms. Smith's Web site.

    n. Leon's parents let him know that Webworks owes $80 toward the electricity bill. Webworks will pay them in July.

o. Webworks only used half of the supplies purchased in (d) above.

E. Prepare an adjusted trial balance for Webworks for June.

5. Jan Haley owns and operates Haley's Dry Cleaners. The following occurred during December:

a. On December 1, Haley prepaid rent on her store for December and January with $2,000 cash.

b. On December 1, Haley purchased insurance with cash in the amount of $2,400 that will last six months.

c. Haley paid $900 of her accounts payable balance.

d. Haley paid off all of her salaries payable balance.

e. Haley purchased supplies on account in the amount of $2,400.

f. Haley paid a salary to her assistant of $1,000 in cash for work done in the first two weeks of December.

g. Haley dry-cleaned clothes for customers on account in the amount of $8,000.

h. Haley collected $6,300 of her accounts receivable balance.

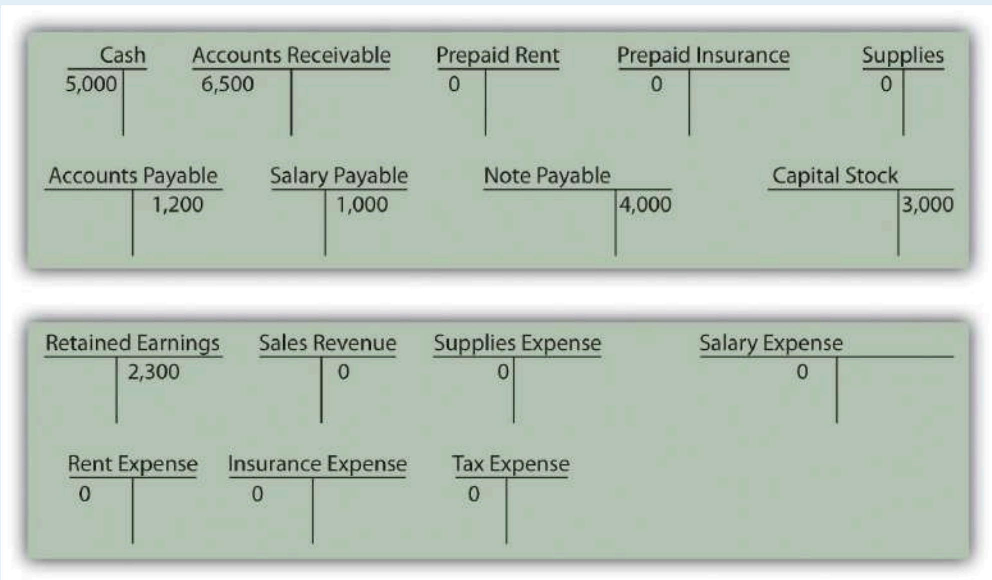
i. Haley paid tax of $750 in cash.

Required:

A. Prepare the journal entry for each transaction.

B. Prepare all necessary T-accounts. Numbers already under the accounts represent the prior balance in that account.

Figure 5.13 Opening T-Account Balances



C. Prepare a trial balance dated 12/31/XX.

D. Make the following adjusting entries for the month of December and post them to the T-accounts:

j. Rent expense.

k. Insurance expense.

l. Haley owes her assistant $1,000 for work done during the last two weeks of December.

m. An inventory of supplies shows $400 in supplies remaining on December 31.

E. Prepare an adjusted trial balance dated 12/31/XX.

F. Prepare an income statement, statement of retained earnings, and balance sheet for the month ending December 31, 20XX.

6. On January 1, Kevin Reynolds, a student at State U, decides to start a business. Kevin has noticed that various student organizations around campus are having more and more need for mass produced copies of programs on CDs. While a lot of students have a CD drive on their computers that can write to CDs, it is a slow process when a high volume of CDs is needed.

   Kevin believes that with a beginning investment in specialty equipment, he can provide a valuable product to the college community. So on 1/1, Kevin officially begins "Kevin's Kool CD Kopies." Of course, Kevin is very careful to ensure that his customers have full ownership rights to the material on their CDs.

   Part 1:

   The following occur during January.

   1. Kevin deposits $500 of his own money into the company's checking account.

   2. Kevin signs a note payable in the amount of $1,000 from Neighborhood Bank. The note is due in one year.

   3. KKCDK (Kevin's Kool CD Kopies) purchases a CD duplicator (a piece of equipment), which can copy seven CDs at one time. The cost is $1,300 and he pays cash.

   4. KKCDK purchases 500 blank CDs for $150 on account.

   5. KKCDK pays $20 cash for flyers to advertise.

   6. KKCDK quickly catches on with the student groups on campus. KKCDK sells 400 CDs to various groups for $0.80 per CD. KKCDK receives cash payment for 300 of the CDs and the student groups owe for the other 100 CDs.

   7. KKCDK pays $100 on its accounts payable.

   8. KKCDK receives $40 in advance to copy 50 CDs for a student group. He will not begin work on the project until February.

   9. KKCDK incurs $40 in tax expense. The taxes will be paid in February.

   Required:

   A. Prepare journal entries for the above events if needed.

   B. Post the journal entries to T-accounts.

   C. Prepare an unadjusted trial balance for KKCDK for January.

   D. Prepare adjusting entries for the following and post them to your T-accounts.

   10. Kevin's roommate, Mark, helps with the CD copying and delivering. KKCDK pays Mark a salary of $50 per month. Mark will get his first check on February 1.

11. KKCDK incurs $10 in interest expense. The interest will be paid with the note.

E. Prepare an adjusted trial balance for KKCDK for January.

F. Prepare financial statements for KKCDK for January.

Part II: The following occur in February:

12. Kevin decides to expand outside the college. On the first day of the month, KKCDK pays $20 in advance for advertising in the local paper. The advertisements will run during February and March.

13. The student groups paid for the 100 CDs not paid for in January.

14. KKCDK paid off its remaining accounts payable, salaries payable, taxes payable and interest payable.

15. KKCDK purchases 450 CDs for $135 on account.

16. KKCDK sells 500 CDs during the month for $0.80 each. KKCDK receives cash for 450 of them and is owed for the other 50.

17. KKCDK completes and delivers the advanced order of 50 CDs described in number 8 above.

18. KKCDK incurs $80 in tax expense. The taxes will be paid in March.

Required:

G. Prepare journal entries for the above events if needed.

H. Post the journal entries to the T-accounts.

I. Prepare an unadjusted trial balance for KKCDK for February.

J. Prepare adjusting entries for the following and post them to your T-accounts.

19. Mark continues to earn his salary of $50 and will be paid on March 1.

20. An adjustment is made for advertising in number 12 above.

21. KKCDK incurs $10 in interest expense. The interest will be paid with the note.

K. Prepare an adjusted trial balance for KKCDK for February.

L. Prepare the financial statements for February.

Chapter 6: Why Should Decision Makers Trust Financial Statements?

Video Clip

(click to see video)

Joe introduces Chapter 6 “Why Should Decision Makers Trust Financial Statements?” and speaks about the course in general.

6.1 The Need for the Securities and Exchange Commission

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Understand the reasons that financial statements might not be fairly presented.
2. Describe the mission of the Securities and Exchange Commission (SEC).
3. Explain the purpose of the EDGAR (Electronic Data Gathering and Retrieval) system.
4. Discuss the times when state laws apply to corporate securities rather than the rules and regulations of the SEC.
5. Explain the relationship of the SEC and the Financial Accounting Standards Board (FASB).

Question: The potential importance of financial statements to any person making an analysis of a business or other organization appears rather obvious. The wide range of available information provides a portrait that reflects the company's financial health and potential for future success. However, a degree of skepticism seems only natural when studying such statements because they are prepared by the company's own management.

Decision makers are not naïve. They must harbor some concern about the validity of data that are self-reported. Company officials operate under pressure to present good results consistently, period after period. What prevents less scrupulous members of management from producing fictitious numbers just to appear profitable and financially strong?
Why should anyone be willing to risk money based on financial statements that the reporting entity itself has created?

Answer: The possible presence of material misstatements (either accidentally or intentionally) is a fundamental concern that should occur to every individual who studies a set of financial statements. Throughout history, too many instances have arisen where information prepared by a company's management has proven to be fraudulent causing decision makers to lose fortunes. In fact, the colorful term "cooking the books"[1] reflects the very real possibility of that practice. Enron, WorldCom, and Madoff Investment Securities are just recent and wide-ranging examples of such scandals.

The potential for creating misleading financial statements that eventually cause damage to both investors and creditors is not limited to current times and devious individuals. Greed and human weakness have always rendered the likelihood of a perfect reporting environment virtually impossible. In addition, fraud is not the only cause for concern. Often a company's management is simply overly (or occasionally irrationally) optimistic about future possibilities. That is also human nature. Therefore, financial information should never be accepted blindly.

Over the decades, numerous laws have been passed in hopes of creating a system to ensure that distributed financial statements are a fair representation of the underlying organization they profess to report. This is an objective that governments take seriously. Under capitalism, the financial health of the economy depends on the ability of worthy businesses to gain external financing for both operations and expansion. Without trust in the financial reporting process, raising large monetary amounts becomes difficult, if not impossible. As has been seen in recent times, hesitancy on the part of investors and creditors restricts the growth of companies and undermines the strength of the entire economy.

In the United States, ultimate responsibility for the availability of complete and reliable information about every organization that issues publicly traded securities[2] lies with the **Securities and Exchange Commission (SEC)**. The SEC is an independent agency within the federal government established by the Securities Exchange Act of 1934. Its mission "is to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation."[3]

Virtually all U.S. companies of any significant size—as well as many foreign companies—fall under the jurisdiction of the SEC because their securities are traded publicly within the United States. Financial statements and other formal filings have to be submitted regularly to the SEC by these companies so that they can then be made available to the public through a system known as **EDGAR (Electronic Data Gathering and Retrieval)**. All such statements and other released information must conform to the rules and regulations of the SEC.

Companies that do not issue even a minimum amount of securities to the public normally are required to comply with state laws rather than with the SEC and federal laws. Financial statements for such companies, although not as likely to be public information, are often required by financial institutions and other interested parties. For example, a bank might insist that a local convenience store include financial statements as part of a loan application. The form and distribution of that financial information must conform to state laws (often referred to as "blue sky laws").

Question: Companies such as General Electric or Starbucks that issue securities to the public are required to satisfy all applicable federal laws and regulations. The SEC has authority over the amount and nature of the information that must be provided and the actions that can be taken by both the buyer and the seller of the securities. Does the SEC develop the specific accounting principles to be followed in the production of financial statements that are issued by public companies?

Answer: Legally, the SEC has the ability to establish accounting rules for all companies under its jurisdiction simply by stating that certain information must be presented in a particular manner in the public filings that it requires. However, the SEC has opted to leave the development of authoritative accounting principles to FASB, which is a private (nongovernment) organization[5]. This decision has, at times, been controversial. Some view it as an abdication of an important responsibility by the federal government. The assumption underlying this decision by the SEC is that the members of FASB can be trusted to study each issue meticulously before arriving at a reasoned resolution.

Thus, FASB produces accounting rules to be applied by all for-profit and not-for-profit organizations in the United

States. State and local governments follow accounting standards produced by the **Governmental Accounting Standards Board (GASB)**. In July, 2009, *FASB Accounting Standards Codification* was released to serve as the single source of authoritative nongovernmental U.S. generally accepted accounting principles (U.S. GAAP). As a result, all the previous individual rules that had been created over the decades were reclassified into a more logical framework. According to a FASB news release, "The Codification reorganizes the thousands of U.S. GAAP pronouncements into roughly 90 accounting topics and displays all topics using a consistent structure. It also includes relevant Securities and Exchange Commission (SEC) guidance that follows the same topical structure in separate sections in the Codification."[7]

Groups other than FASB also contribute to accounting standards but in a much less significant fashion. The most important of these is the **Emerging Issues Task Force (EITF)**, which was created in 1984 to assist FASB[8]. The EITF examines new problems when they initially arise in hopes of coming to quick agreement as to an appropriate method of reporting based on existing U.S. GAAP. Thus, the EITF is not forming U.S. GAAP as much as helping to apply it to newly created situations. If consensus is achieved (that is, no more than three members object), the conclusions rendered by the EITF are considered to be authoritative until such time—if ever—as FASB provides its own formal guidance. In this way, FASB does not have to issue hasty pronouncements to resolve every unique reporting concern when it first appears.

The SEC itself is not totally absent from the formation of U.S. GAAP. It occasionally issues guidelines to ensure that adequate information is being disclosed to the public through its own rules and interpretive releases. That is especially true in situations where reporting concerns have emerged and adequate official guidance does not exist. The SEC tends to restrict its own power over financial reporting to those areas where U.S. GAAP—for whatever reason—has not yet been well constructed. Assume, for example, that a new type of transaction arises and the EITF is unable to arrive at a consensus resolution. The SEC might specify relevant data to be included in the notes to financial statements or could prohibit certain methods of reporting until FASB had the opportunity to provide a studied ruling.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092647.html

Key Takeaway

The U.S. economy depends on the willingness of investors and creditors to risk their hard-earned financial resources by conveying it to organizations. Financial statements play an important role in providing the information that allows such decisions to be made. However, accounting scandals periodically remind all parties that fraud is possible in the financial reporting process. In the United States, the Securities and Exchange Commission (SEC) is responsible for the fair distribution of information by companies with publicly traded securities. The EDGAR system makes this information readily available. State laws apply to all other organizations. In hopes of creating a well-developed system of considered accounting principles, the SEC has chosen to allow FASB to set U.S. GAAP. The SEC typically only becomes involved with the creation of accounting rules (usually limited to disclosure of information) when current standards are found to be unclear or incomplete.

[1]Although often viewed as a relatively recent linguistic creation, variations of the term "cooking the books" had already been in use for over one hundred years when Tobias Smollett included the following phrase in his book *The Adventures of Peregrine Pickle*, first published in 1751: "Some falsified printed accounts, artfully cooked up, on purpose to mislead and deceive." Even over 250 years later, those words aptly describe accounting fraud.

[2]For this introductory textbook, a security will include ownership shares of a company as well as debt instruments that can be sold from one party to another. A debt instrument is a promise to pay a stated amount plus a specified rate of interest at a particular point in time.

[3]See http://www.sec.gov.

[4]Considerable information on accessing the financial data filed with the SEC can be found at http://www.sec.gov/edgar.shtml. Any student considering a career in financial analysis or the like should visit this site to become familiar with its contents, especially the tutorial, so that the EDGAR system can be used to gain information provided by publicly traded companies.

[5]As mentioned in Chapter 2 "What Should Decision-makers Know So That Good Decisions Can Be Made about an Organization?", the process of switching authority from U.S. GAAP to International Financial Reporting Standards (IFRS) appears to be at its inception. The SEC has played a major role in this ongoing development and will certainly continue to do so over the next several years.

[6]State and local governments follow accounting standards produced by the Governmental Accounting Standards Board (GASB). Information can be found at http://www.gasb.org.

[7]News release by FASB, July 1, 2009.

[8]In Chapter 2 "What Should Decision-makers Know So That Good Decisions Can Be Made about an Organization?", http://www.fasb.org was mentioned as an excellent source of information about FASB. Another tab available at this Web site discusses the role of the EITF.

6.2 The Role of the Independent Auditor in Financial Reporting

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Understand the purpose of an independent audit.
2. List the two primary components of an independent audit.
3. Explain the function of an independent audit firm.
4. Describe the steps required to become a Certified Public Accountant (CPA).
5. List the various services provided by many public accounting firms.
6. Discuss the necessity for the creation of the Public Company Accounting Oversight Board (PCAOB) and describe its function.

Question: The SEC allows FASB to set U.S. GAAP. Does the SEC physically visit each company that issues securities to the public to ensure that periodic financial statements properly follow the rules and guidelines of U.S. GAAP?

Answer: A detailed examination of the financial statements produced by thousands of publicly traded companies around the world would require a massive work force with an enormous cost. Therefore, this very essential role in the financial reporting process has been left by the SEC to auditing (also known as public accounting) firms that operate both inside and outside the United States. Before submitting their statements to the SEC and then to the public, reporting companies such as IBM and Wells Fargo must hire one of these independent auditing organizations to

- perform an **audit** (examination) of the financial statements,
- report on whether sufficient supporting evidence was gathered to enable the auditor to provide reasonable assurance that the statements are presented fairly because they contain no material misstatements according to U.S. GAAP.

This written report by the company's independent auditor is then attached to the financial statements for all to see. The report is essential to the integrity of the reporting process. It provides the auditor's expert opinion as to whether decision makers should feel safe in relying on the financial information to make their decisions. The report is a legal requirement for statements provided to the SEC. Even many companies that are not affected by the rules of the SEC have their statements audited by an independent firm to enhance credibility. For example, a convenience store seeking a bank loan could pay for an audit in hopes of increasing the chances that the application will be approved (or because bank officials have required the audit for the bank's own protection).

Not surprisingly, companies that have audits are able to get loans at lower interest rates than comparable organizations that do not have their financial statements subjected to examination (Blackwell, et. al., 1998). The audit serves to reduce the lender's risk of loss. Thus, a lower interest rate is needed to convince banks and other institutions to provide financial resources.

In the United States, **independent auditing firms** can only be operated by individuals who have been formally recognized by a state government as **Certified Public Accountants (CPAs)**. Such firms range in size from massive (KPMG employs over 135,000 individuals working in 140 countries and generated annual revenues of approximately $22.7 billion for the year ended September 30, 2008[2]) to organizations comprised of just one or two people.

Obviously, for the financial statements of the biggest clients (the ExxonMobils and Wal-Marts of the world), only a public accounting firm of significant size could effectively perform an audit engagement. Consequently, four firms (known collectively as the **Big Four**) are truly huge global organizations:

- Deloitte Touche Tohmatsu
- Ernst & Young
- KPMG
- PricewaterhouseCoopers

However, thousands of smaller independent CPA firms exist providing numerous services, such as audit, **tax planning and preparation**, and **advisory work** for a wide range of clients. Ernst & Young indicates on its Web site (http://www.ey.com) that the following services are provided to its clients with each explained in detail: advisory, assurance, tax, transactions, strategic growth markets, and specialty services.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092675.html

Question: FASB creates U.S. GAAP, the official standards for the preparation of financial statements. What group sets the examination and reporting rules to be followed by independent auditors? Their work is not in accordance with accounting principles. Instead, they are seeking to determine whether U.S. GAAP was applied properly. These auditing firms clearly provide a vital service by adding credibility to reported financial information. How do independent auditors know what actions should be taken in assessing the data reported by a company such as Xerox or Bank of America?

Answer: When an audit is performed on the financial statements of any organization that issues securities to the U.S. public, the examination and subsequent reporting is regulated by the **Public Company Accounting Oversight Board (PCAOB)**. The PCAOB was brought into existence by the U.S. Congress through the **Sarbanes-Oxley Act of 2002**, a measure passed in response to a number of massive accounting scandals, including Enron and WorldCom. Members of Congress apparently felt that the auditing profession had failed to provide adequate protection for the decision makers who were relying on published financial information. Consequently, the federal government became more involved. The PCAOB was established under the oversight and enforcement authority of the SEC. It holds wide-ranging powers that include the creation of official guidelines for the performance of a proper audit. Its mission is stated as follows: “The PCAOB is a private-sector, nonprofit corporation, created by the Sarbanes-Oxley Act of 2002, to oversee the auditors of public companies in order to protect the interests of investors and further the public interest in the preparation of informative, fair, and independent audit reports.”[3]

If an audit is performed on financial statements that are produced by an organization that does not issue securities to the public, the PCAOB holds no authority. For such smaller engagements, the **Auditing Standards Board (ASB)** officially sets the rules for an appropriate audit. The ASB is a technical committee within the **American Institute of Certified Public Accountants (AICPA)**, a national professional organization of CPAs.

A local convenience store, as mentioned previously, or a medical practice or law firm might choose to have an audit on its financial statements. These audits fall under the guidelines provided by the ASB rather than the PCAOB because the organizations do not issue publicly traded securities. Thus, the rules for performing an audit on a large public company can differ somewhat from those applied to a smaller private one.

Question: If FASB sets U.S. GAAP and the PCAOB (and the ASB) establishes rules for performing an audit, what function does the SEC actually serve?

Answer: The goal of the work done by the SEC is summed up in the following statement from its Web site: “The laws and rules that govern the securities industry in the United States derive from a simple and straightforward concept: all investors, whether large institutions or private individuals, should have access to certain basic facts about an investment prior to buying it, and so long as they hold it.”[4]

Thus, the SEC strives to make certain that the organizations that fall under its jurisdiction are in total compliance with all laws so that decision makers have ready access to information viewed as relevant. It reviews the required filings submitted by each organization to ensure that the rules and regulations are followed. The SEC also has the power to enforce securities laws and punish companies and individuals who break them. For example, if a company fails to disclose a significant transaction or other event that the SEC believes is necessary, trading of that company’s securities can be halted until the matter is resolved. Such regulatory actions can cause a huge financial loss for a business; thus, compliance is viewed as vital.

In addition, if corporate officials provide false or misleading data, fines and jail time are also possible: “L. Dennis Kozlowski, the former CEO of Tyco International, acquired hundreds of companies between 1996 and 2002 and created a conglomerate that made everything from fire suppression systems to health-care products, with worldwide sales of $40 billion. Now, while serving up to 25 years in jail for misleading investors and stealing money from Tyco, he’s watching the breakup of all he built” (Kostrzewa, 2007).

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092653.html

Key Takeaway

Independent auditing firms provide credibility to financial statements by examining the evidence that underlies the information provided and then reporting on those findings. Official oversight of the rules for this process is in the hands of the Public Company Accounting Oversight Board (PCAOB) if the audited company issues securities to the public and the Auditing Standards Board (ASB) if not. The role of the Securities and Exchange Commission (SEC) is to ensure that this reporting process is working as intended by the government. The SEC examines the filings of the various companies and can take disciplinarian action if either the company or its officials fail to act appropriately.

[1]The rules for becoming a CPA vary by state but usually include a specific amount and level of education as well as a passing grade on each of the four parts of the uniform CPA Exam. Some states also require a defined length of practical experience such as one or two years. Information about the CPA Exam and state requirements for applying are available at http://www.cpa-exam.org.

[2]See http://www.kpmg.com as of July 20, 2009.

[3]See http://www.pcaob.com.

[4]See http://www.sec.gov.

References

Blackwell, D. W., Thomas R. Noland, and Drew B. Winters, “The Value of Auditor Assurance: Evidence from Loan Pricing,” *Journal of Accounting Research*, Spring 1998, 57–70.

Kostrzewa, J., “After the Scandal, a New Tyco,” *The Providence Journal*, July 15, 2007, F-1.

6.3 Performing an Audit

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Describe the goal of an auditor in examining an account balance.
2. List audit tests that might be performed on an account receivable total.
3. Understand the reason that an independent auditor only provides reasonable assurance and not absolute assurance.

Question: A company is preparing a set of financial statements for the most recent year. It has hired an independent firm of CPAs to audit those statements and provide a report that will be attached to them. Perhaps this action is required of the company by the SEC or maybe by a local bank or other lender. What work does an independent auditor perform in examining a set of financial statements? The audit firm seeks to provide reasonable assurance to decision makers that these statements are presented fairly and, thus, contain no material misstatements according to U.S. GAAP. How is the auditor able to gain the evidence needed to make that assertion?

Answer: An independent audit is an elaborate and complicated activity that often requires scores of experienced CPAs many months to complete. A basic understanding of the audit process is best achieved through one or more upper-level college courses as well as years of practical experience. Thus, coverage here must, by necessity, be rather superficial.

The numbers found on a set of financial statements do not appear by magic. For example, if receivables are disclosed on a balance sheet as $12.7 million, a legitimate reason has to exist for reporting that particular figure. In preparing statements, company accountants should document how each balance was derived and why it is considered appropriate according to U.S. GAAP. The statements are the representation of the company; thus, the burden of proof is on that organization and its officials. The independent auditors then examine the available evidence to determine whether reliance on the reported information is advised.

As a simple illustration, assume that a business presents a list of one thousand customers and claims that the total amount due from them is $12.7 million. This figure is reported for “accounts receivable” under the asset section of the company’s year-end balance sheet. The independent audit firm seeks to accumulate sufficient, competent evidence to substantiate that this balance is not materially misstated in accordance with U.S. GAAP.

For these receivables, the auditor could carry out several testing procedures to gain the assurance needed. Such techniques might include the following:

- Add the individual account balances to ascertain that the total really is $12.7 million.
- Examine sales documents for a sample of individual customers to determine that the amounts sold are equal to the figures listed within the receivable. For example, if the sales document indicates that Mr. A bought goods at a price of $1,544 is that same dollar amount found in the company's receivable balance?
- Examine cash receipts documents for a sample of customers to ensure that no unrecorded payments were collected prior to the end of the year. If Mr. A paid cash of $1, 544 on December 30, was the corresponding receivable balance reduced by that amount prior to the end of the year?
- Contact a sample of the customers directly to confirm that the balance shown is, indeed, appropriate. "Mr. A: Company records show that you owe $1,544. Is that amount correct?"

Through these and other testing procedures, the auditor hopes to ascertain that $12.7 million is a fairly presented amount for this asset account. All other reported balances are also examined during the independent audit. The quantity and type of audit testing varies considerably based on the nature of the account. Looking at $12.7 million in receivables requires different steps than investigating a building bought for that same amount. Not surprisingly, large balances often require especially extensive testing. In addition, certain accounts (such as cash or inventory) where the risk of misstatement is particularly high draw particular attention from the independent auditors.

If the auditor eventually concludes that sufficient evidence has been obtained to reduce the risk of a material misstatement in the financial statements to an acceptably low level, an audit report can be issued with that opinion. Assuming no problems were encountered, reasonable assurance is provided by the independent auditor to decision makers that the statements are presented fairly and, thus, contain no material misstatements according to U.S. GAAP.

As mentioned, the independent auditor's report is then attached to the financial statements. Upon reading this report, investors and creditors should feel confident relying on the information provided by those statements to make financial decisions about the organization.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092676.html

Question: One aspect of the audit process seems particularly puzzling. The independent auditor merely provides reasonable assurance. The risk that a material misstatement is included in the accompanying financial statements is only reduced to a low level and not to zero. Why do decision makers who may be risking significant amounts of money not insist on absolute and complete assurance? Because of the potential for financial loss, decision makers surely must want every possibility of incorrect reporting to be eliminated by the work of the independent auditor. Is reasonable assurance that no material misstatements are present truly adequate for decision makers who must rely on a set of financial statements for information?

Answer: Independent auditors provide reasonable assurance but not absolute assurance that financial statements are presented fairly because they contain no material misstatements according to U.S. GAAP. A number of practical reasons exist as to why the assurance level is limited in this manner.

First, many of the figures found on any set of financial statements are no more than estimations. Auditors do not possess reliable crystal balls that allow them to predict the future. The uncertainty inherent in these estimations immediately eliminates the possibility for absolute assurance. For example, reporting the amount of cash that will be collected from a large group of accounts receivable is simply a carefully considered guess. It is presented according to U.S. GAAP but it is still an estimate.

Second, organizations often take part in so many transactions during a period that uncovering every potential problem or issue is impossible. Usually, in analyzing most account balances, the auditor only has time to test a sample of the entries and adjustments. Without examining every individual event, absolute assurance is not possible. Material misstatements can always be missed if less than 100 percent of the transactions are tested.

Third, an independent auditor visits a company for a few weeks or months each year to carry out testing procedures. Company officials who want to hide financial problems are sometimes successful at concealment. Auditors can never be completely certain that they have not been victimized by an elaborate camouflage scheme perpetrated by management. Thus, they are not comfortable providing absolute assurance.

Fourth, informed decision makers should understand that independent auditors can only provide reasonable assurance. Through appropriate testing procedures, risk of a material misstatement is reduced to an acceptably low level but not eliminated entirely. Investors and creditors need to take that limitation into consideration when assessing the financial health and future well being of an organization presented through a set of financial statements. Although the risk is small, their decisions should factor in the level of uncertainty that is always present.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092654.html

Key Takeaway

Financial statements are the product of company management. An independent auditing firm performs extensive testing of the balances and disclosure reported. Auditors seek to obtain sufficient evidence that the statements are presented fairly because no material misstatements are present according to U.S. GAAP. When the risk of a material misstatement has been reduced to an acceptably low level, reasonable assurance can be provided. Thus, decision makers can feel safe using the information. Absolute assurance is not humanly possible because all statements contain many estimations and the auditors do not have time (or the need) to examine every transaction. Management can, in some cases, also conceal problems from the auditors. Thus, decision makers need to understand that only reasonable assurance of no material misstatements is possible when examining a set of financial statements.

6.4 The Need for Internal Control

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Define "internal control."
2. Explain a company's need for internal control policies and procedures.
3. Describe the effect that a company's internal control has on the work of the independent auditor.

Question: In the previous discussions, the role of the independent auditor is described as adding credibility to financial statements. The reported figures, though, are still the responsibility of management. How do a company and its officials make certain that the information displayed in a set of financial statements is fairly presented?

Companies like Barnes & Noble and RadioShack participate in millions of transactions in geographically distant store locations as well as internationally through their Web sites. Working with that amount of data, gathered from around the world, can be a daunting technological challenge. Some organizations are able to accumulate massive quantities of information with few—if any—problems; others seem to be overwhelmed by the task. The reliability of the numbers gathered for reporting purposes impacts the amount and type of testing that the independent auditor considers necessary. How do companies make certain that their own information is free of material misstatements?

Answer: The human body is made up of numerous systems that perform specific tasks, such as the breathing of air, the circulation of blood, and the digestion of food. Organizations operate in much the same manner. Systems are designed and set in place by management to carry out essential functions, such as paying employees, collecting cash from customers, managing inventory levels, and monitoring receivable balances. Within each system, individuals are charged with performing specific tasks, often in a preordained sequence. For example, a cash payment received in the mail from a customer should be handled in a set way every time that it occurs to ensure that it is properly recorded and protected from theft.

To be efficient and effective, these systems must be carefully designed and maintained. They need to keep company assets secure at a minimum cost. In addition, appropriate record keeping is a required aspect of virtually every system. Thus, employees are properly paid when their salary comes due, but also adequate documentation is maintained of the amounts distributed. The entire function is performed according to company guidelines and a record is maintained.

Well-designed systems generate information that poses a reduced threat of material misstatements. However, simply having systems in place—even if they are properly engineered and constructed—is not sufficient to guarantee both the effectiveness of the required actions and the reliability of the collected data. Thus, extra procedures are built into every system by management to help ensure that every operation is performed as intended and the resulting financial data are reliable. All the redundancies added to a system to make certain that it functions properly are known collectively as **internal control**. For example, a rule requiring two designated employees to sign any check for over $5,000 (or some other predetermined amount) is part of a company's internal control. There is no inherent necessity for having a second signature; it is an added safeguard included solely to minimize the chance of theft or error. All actions like this comprise a company's internal control.

Internal control policies and procedures can be found throughout the various systems of every company.

- One person counts cash and a second verifies the figure.
- One person requests the purchase of an asset and a second authorizes the request.

Internal control is made up of all the procedures that are performed purely to help make certain that each system operates as intended. Systems cannot be considered well designed without the inclusion of adequate internal control. Management is responsible for the development of effective systems but also for all the internal control rules and requirements to ensure that these systems accomplish their stated objectives.

Question: If a company creates and then maintains good operating systems with appropriate internal control, the financial information that is produced is less likely to contain material misstatements. In performing an audit, is the work of the independent CPA affected by the company's internal control? Does the quality of internal control policies and procedures impact the amount and type of audit testing?

Answer: As a preliminary step in an audit examination, the CPA gains an understanding of the internal control procedures included within each of these systems that relate to reported financial accounts and balances[1]. The auditor then makes an evaluation of the effectiveness of those policies and procedures. In cases where internal control is both well designed and appears to be functioning as intended, a reduction is possible in the amount of audit testing that is needed. The likelihood of a material misstatement is reduced by the company's own internal control.

To illustrate, assume that a company claims to hold accounts receivable totaling $12.7 million. The auditor plans to confirm one hundred of the individual balances directly with the customers to substantiate the separate amounts listed in the accounting records. A letter will be written to each of these individuals asking them whether the specified balance is correct. A stamped return envelope will be included.

Although effective, this confirmation process is slow and expensive. During the year, the reporting company applied several internal control procedures within those systems that maintain the receivables balances. These controls are evaluated by the independent CPA and judged to be excellent. As a result, the auditor might opt to confirm only thirty or forty individual accounts rather than the one hundred that had originally been determined. Because of the quality of internal control in the receivable area, the risk of a material misstatement is already low. Less audit testing is necessary.

Thus, at the beginning of an independent audit, the design of the reporting company's internal control and the effectiveness of its procedures are assessed. Only then does the auditor start to seek sufficient evidence to substantiate that each account balance is presented fairly because no material misstatements are included according to U.S. GAAP.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092650.html

Key Takeaway

All companies operate by means of numerous systems that carry out designated tasks, such as the collection of cash and the payment of purchases. These systems need to be well designed and operating as intended to reduce the chance of material misstatements. Additional policies and procedures are included at important junctures in the construction of these systems to ensure that they function appropriately. All such safeguards make up the company's internal control system. The independent auditor evaluates the quality of the internal control found in the various systems. If the risk of material misstatement has been reduced as a result of the internal control in a particular system, less audit testing is required.

[1]Some internal controls have nothing to do with a company's financial statement accounts and are not of importance to the work of the independent auditor. For example, a company might establish a review procedure to ensure that only deserving employees receive promotions. This guideline is an important internal control for the operating effectiveness of the company. However, it does not relate to a reported account balance and is not evaluated by the independent auditor.

6.5 The Purpose and Content of an Independent Auditor's Report

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Describe the purpose of the independent auditor's report.
2. Identify the intended beneficiaries of an independent auditor's report.
3. Discuss the contents of the introductory, scope, and opinion paragraphs in an independent auditor's report.
4. List problems that might impact the contents of an independent auditor's report.
5. Indicate the method used by decision makers to determine whether an independent auditor has been unable to issue an unqualified opinion.

Question: At the conclusion of an audit, a report is issued that will be attached to the financial statements for all to read. Much of this report is boilerplate: the words are virtually identical from one company to the next. What information is conveyed by an independent auditor and what should a reader look for when studying an audit report?

Answer: The **audit report** accompanying the 2007 and 2008 financial statements for the Procter & Gamble Company is found below.

To the Board of Directors and Shareholders of the Procter & Gamble Company:

We have audited the accompanying Consolidated Balance Sheets of The Procter & Gamble Company and subsidiaries (the "Company") as of June 30, 2008 and 2007, and the related Consolidated Statements of Earnings, Shareholders' Equity, and Cash Flows for each of the three years in the period ended June 30, 2008. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in the 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 misstatements. 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, such Consolidated Financial Statements present fairly, in all material respects, the financial position of the Company at June 30, 2008 and 2007, and the results of its operations and cash flows for each of the three years in the period ended June 30, 2008, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 1 to the Consolidated Financial Statements, the Company adopted the provisions of FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes—an interpretation of FASB Statement No. 109," effective July 1, 2007. Also, as discussed in Note 1 to the Consolidated Financial Statements, the Company adopted the provisions of SFAS No. 158, "Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans, an amendment of FASB Statements No. 87, 88, 106, and 132 (R)," effective June 30, 2007.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of June 30, 2008, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated August 12, 2008 expressed an unqualified opinion on the Company's internal control over financial reporting.

Deloitte & Touche LLP
Cincinnati, Ohio
August 12, 2008

To understand the role of the independent audit within the financial reporting process, a considerable amount of information should be noted in the report found above.

1. The report is addressed to the board of directors (elected by the shareholders) and the shareholders. An audit is not performed for the direct benefit of the reporting company or its management but rather for any person or group studying the financial statements for decision-making purposes. The salutation stresses that those external users (rather than the company itself) are the primary beneficiaries of the work carried out by the independent auditor.

   Interestingly, independent auditors are paid by the reporting company. The concern is raised periodically as to whether an auditor can remain properly independent of the organization that is providing payment for the services rendered. However, audit examinations are quite expensive and no better method of remuneration has yet been devised.
2. To avoid any potential misunderstanding, the first (introductory) paragraph identifies the specific financial statements to which the report relates. In addition, both the responsibility of the management for those financial statements and the responsibility of the independent auditor for providing an opinion on those statements are clearly delineated. The statements are examined by the auditor. The statements are not created by the auditor; that is a job for management.

3. The second (scope) paragraph provides considerable information about the audit work. One key sentence is the second. It explains the purpose of the audit by referring to the standards created by the PCAOB: "Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements." This sentence clearly sets out the purpose of an audit engagement and the level of assurance given by the auditor. No reader should expect absolute assurance.

The remainder of the second paragraph describes in general terms the steps taken by the auditor:

- Examine evidence on a test basis to support reported amounts
- Assess the accounting principles that were applied
- Assess significant estimations used in creating the statements
- Evaluate overall presentation

4. The third (opinion) paragraph provides the auditor's opinion of the financial statements. In this illustration, an **unqualified opinion** is being issued meaning that no problems worthy of note were discovered. The auditor provides the reader with reasonable assurance: "In our opinion, such consolidated financial statements present fairly, in all material respects…in conformity with accounting principles generally accepted in the United States of America." Through this sentence, the independent auditor is adding credibility to the financial statements. The auditor believes readers can rely on these statements in making their financial decisions.
5. The fourth (explanatory) paragraph is included whenever the auditor wants to draw the reader's attention to some aspect of the financial statements. The presence of this paragraph does not mean that the information is unreliable, only that the auditor feels some additional explanation is warranted. In this case, the method by which certain accounting events and transactions were handled has been changed because of the creation of new accounting rules (FASB Interpretation No. 48 and FASB SFAS No. 158). Material misstatements are not present; the auditor simply wants to emphasize that changes have taken place because U.S. GAAP has been officially modified.
6. The fifth (control) paragraph provides an additional opinion, this time in connection with the company's internal control. Such an assessment is now required when an audit is performed on a company that is subject to the rules of the PCAOB. Not only is the auditor asserting that the financial statements are presented fairly in conformity with U.S. GAAP (paragraph 3) but also gives an unqualified opinion on the company's internal control over financial reporting. This additional assurance provides the reader with another reason to place reliance on the accompanying financial statements.

Question: The audit report presented here for Procter & Gamble is an unqualified opinion. The independent auditor is providing reasonable assurance to decision makers that the company's financial statements are presented fairly, in all material respects, in conformity with U.S. GAAP. What can cause an independent auditor to issue an audit report with less than an unqualified opinion and how is that report physically different?

Answer: An independent auditor renders an opinion that is not unqualified in two general situations:

- The auditor was not able to obtain sufficient evidence during the audit to justify an unqualified opinion. Perhaps the amount reported for a building or a liability could simply not be substantiated to the auditor's satisfaction. The balance might well be fairly presented according to U.S. GAAP but evidence was not available to allow the auditor to make that assertion with reasonable assurance.

- The auditor discovers the existence of a material misstatement in the financial statements, a balance or disclosure that does not conform to U.S. GAAP. Because of the potential damage to the credibility of the financial statements, a reporting company will usually make any adjustments necessary to eliminate such misstatements. If not, though, the auditor must clearly warn readers of such problems.

The physical changes made in the report depend on the type of problem that is involved and its magnitude. The key, though, is that a new paragraph is added between the scope and the opinion paragraphs to describe the auditor's concern. Decision makers often scan the audit report solely to see if such a paragraph is contained. If present, a careful reading of its contents (as well as related changes found in the wording of the opinion paragraph) should be made to determine the possible ramifications. Whether evidence was lacking or a material misstatement was uncovered, the auditor is providing a warning for the reader. The presence of an added paragraph—prior to the opinion paragraph—always draws attention.

Key Takeaway

Upon completion of an audit, the independent auditor's report is attached to the financial statements. It is provided for the benefit of external decision makers. The financial statements are identified and the second (scope) paragraph provides an explanation of the audit process. If no problems are encountered, the report is said to be unqualified and the opinion paragraph provides reasonable assurance to readers that the financial statements are presented fairly because no material misstatements are present according to U.S. GAAP. A qualification arises if the auditor is not able to obtain a satisfactory amount of evidence or if a material misstatement is found. Information about any such problem is then inserted into the audit report between the second (scope) paragraph and the third (opinion) paragraph.

Talking with a Real Investing Pro (Continued)

Following is a continuation of our interview with Kevin G. Burns.

Question: An independent audit is extremely expensive for any reporting company. As an investor, is the benefit gained from seeing the independent auditor's report attached to a set of financial statements actually worth the cost that must be incurred by the company?

Kevin Burns: I think the answer to this question is fairly obvious given the recent scandals, especially in the hedge fund world. An independent audit is absolutely critical for a corporation no matter what the expense. It is an exciting time to be in the accounting profession as investors are demanding additional transparency and independent oversight. Market confidence will be even more critical than usual for any business that wants to obtain money by issuing its equity shares and debt instruments. An internal audit would be perceived as self serving and untrustworthy and perception is 90 percent of reality, especially in today's cynical environment. Given the recent meltdown of financial institutions and stock prices, investors have a right to feel cynical and demand even more assurance before risking their money.

Video Clip

" href="http://app.wistia.com/embed/medias/84944f1f3d" class="replaced-iframe">(click to see video)

Unnamed Author talks about the five most important points in Chapter 6 “Why Should Decision Makers Trust Financial Statements?”.

6.6 End-of-Chapter Exercises

Questions

1. Why is it important that people and organizations have trust in the financial reporting process?
2. What is the Securities and Exchange Commission?
3. What types of companies fall under the jurisdiction of the SEC?
4. Who has the SEC given responsibility to for setting generally accepted accounting principles (GAAP) in the United States?
5. Who is the Emerging Issues Task Force?
6. Why doesn't the SEC examine all the financial statements submitted to it to ensure their accuracy?
7. For what must public companies hire an auditing firm before they submit their financial statements to the SEC?
8. Why would a nonpublic company have its statements audited?
9. What is a CPA?
10. Which organization sets standards for and regulates firms who audit public companies?
11. Which act established the Public Company Accounting Oversight Board?
12. Which organization sets standards for and regulates firms who do not audit public companies?
13. What type of assurance does an audit provide?
14. Why do audits not provide absolute assurance that financial statements are presented fairly according to GAAP?
15. What are internal controls?
16. How is an auditor's work affected by a company's internal controls?
17. To whom is the audit report addressed?
18. What is an unqualified opinion?
19. Why would an auditor include an explanatory paragraph in an audit report?
20. Why would an auditor not give an unqualified opinion?

True or False

1. ____ The quality of a company's internal controls has no effect on the work of an auditor.
2. ____ Acquiring the CPA designation requires a candidate to pass an exam, meet education requirements, and meet experience requirements.
3. ____ The SEC is the current accounting standard setting body in the United States.
4. ____ The inclusion of an explanatory paragraph in an audit report is an indication that the financial

statements should not be relied on.

5. ____ The PCAOB oversees auditors of public companies.
6. ____ Nonpublic companies have no reason to have an audit of their financial statements performed.
7. ____ Audits are paid for by the creditors and investors of a company.
8. ____ CPAs can work for large, multinational firms, or for small, local firms.
9. ____ Auditors provide reasonable assurance that financial statements are fairly presented in accordance with U.S. GAAP.
10. ____ The Financial Accounting Standards Board is a governmental agency.

Multiple Choice

1. Whittington and Company is a CPA firm that audits publicly traded companies. Which of the following is true concerning Whittington and Company?
    1. Whittington and Company are regulated by FASB.
    2. Whittington and Company are hired by the companies they audit.
    3. Whittington and Company should follow the auditing standards set forth by the Auditing Standards Board.
    4. Whittington and Company prepares the financial statements for the companies they audit.
2. Which of the following is **not** true about an audit report?
    1. An explanatory paragraph may be included to draw the reader’s attention to some aspect of the financial statements.
    2. If a material misstatement exists in the financial statements, the auditor should not issue an unqualified opinion.
    3. The report is addressed to the company’s board of directors and shareholders.
    4. If anything other than unqualified opinion is issued, the financial statements must contain a material misstatement.
3. Which of the following is true about the Financial Accounting Standards Board (FASB)?
    1. FASB sets standards that apply to companies throughout the world.
    2. FASB was created by the EITF to handle smaller issues in a timely manner.
    3. FASB produces standards that apply to almost all companies in the United States.
    4. FASB was created by the Securities Exchange Act of 1934.
4. Which organization is a governmental entity?
    1. SEC
    2. FASB
    3. EITF
    4. ASB

5. Which of the following is true about the Securities and Exchange Commission (SEC)?
    1. The SEC has the power to set accounting standards in the United States.
    2. The SEC does not have any enforcement powers.
    3. The SEC determines auditing standards for those who audit public companies.
    4. The SEC relies on fees collected from publicly traded companies to operate.

Problem

Match the following organizations to their descriptions.

- ____ FASB
- ____ PCAOB
- ____ SEC
- ____ EITF
- ____ ASB

1. Sets auditing standards for auditors of publicly traded companies
2. Sets U.S. generally accepted accounting principles
3. Helps apply U.S. generally accepted accounting principles to new situations
4. Sets auditing standards for auditors of private companies
5. Created by the Securities Exchange Act of 1934 to protect investors

Research

1. The chapter mentions the Big Four public accounting firms: Deloitte, Ernst & Young, KPMG, and PricewaterhouseCoopers. We will visit the Web site for one of these—PricewaterhouseCoopers. Go to http://www.pwc.com and answer the following questions:
    1. Name three countries/territories in which PricewaterhouseCoopers (PWC) operates.
    2. Select the United States. Name four services that the firm offers in the United States.
    3. Select the Audit and Assurance function. How does the firm define assurance?

       PricewaterhouseCoopers is currently the auditor of Dell. Go to http://www.dell.com and click on “investor relations” at the bottom of the page. Choose “financials” in the upper left corner. Click on “10-K filings” in the upper right corner. Choose the most recent 10-K. Find the Auditor’s Report and read through it.
    4. Is the opinion unqualified?
    5. Are there any explanatory paragraphs?

6. Is the auditor’s opinion on internal control included as part of the audit report?

2. In the United States, audits must be conducted by Certified Public Accountants (CPAs). Each state has different requirements that individuals must meet to become licensed as a CPA. This exercise will give you a chance to discover the rules in your state. Begin by going to the Web site for the National Association of State Boards of Accountancy (NASBA) at http://www.nasba.org.

   Click on the box that says “State Board Listing.” A map of the United States will appear. Click on your state. The information for your state board of accountancy will appear in a box. Click on the Web site given. By navigating around the Web site for your state board of accountancy, you should be able to find out what the exam, education, and experience requirements are in your state. Write these down.

Chapter 7: In a Set of Financial Statements, What Information Is Conveyed about Receivables?

Video Clip

(click to see video)

Joe introduces Chapter 7 “In a Set of Financial Statements, What Information Is Conveyed about Receivables?” and speaks about the course in general.

7.7 End-of-Chapter Exercises

Questions

1. Define "accounts receivable."
2. How is the "net realizable value" of accounts receivable determined?
3. Name three factors a company might consider when trying to determine the amount of accounts receivable that will be ultimately collected.
4. What does the account "allowance for doubtful accounts" represent?
5. Define "contra account."
6. When is bad debt expense recorded?
7. Why do companies set up the allowance for doubtful accounts instead of just decreasing accounts receivable for any expected uncollectible balances?
8. What entry does a company make to write off a specific account that has proven to be uncollectible?
9. Give two reasons why accountants do not restate prior year statements when estimations are not exact.
10. Name the two most popular approaches to estimating uncollectible accounts and briefly explain each.
11. What is the purpose of a company having an accounts receivable subsidiary ledger?
12. Why does reporting balances in foreign currencies create accounting challenges?
13. At what exchange rate are monetary asset and liabilities reported?
14. Define "current assets."
15. Define "current liabilities."
16. How is the current ratio calculated and what does it indicate about a company's financial health?
17. Why do financial statement users calculate a company's age of receivables?

True or False

1. ____ Companies use two separate accounts in order to report accounts receivable at its net realizable value.
2. ____ Bad debt expense is reported on the balance sheet as a contra account to accounts receivable.
3. ____ The matching principle says that expenses should be recorded the same period as the revenues they help generate.
4. ____ Once an account has been written off, it can never be reinstated on the books, even if it is later collected.
5. ____ The net accounts receivable number on the balance sheet represents the exact amount the company will collect in cash.
6. ____ All companies perform their estimation of uncollectible accounts in the same manner.

7. ____ Frequently, bad debt expense and the ending balance in the allowance for doubtful accounts will differ.
8. ____ The older a receivable, the less likely it is to be collected.
9. ____ The higher that receivables turnover is, the slower the receivables are being collected.
10. ____ To make statements more accurate, bad debt expense is recorded when a specific account is deemed uncollectible and written off.

Multiple Choice

1. Which of the following would **not** be used to help a company determine the net realizable value of its accounts receivable?

    1. Industry averages and trends
    2. The company’s ability to pay its own debts
    3. Current economic conditions
    4. Efficiency of the company’s collection procedures

2. Which principle states that expenses should be recorded in the period in which they help generate revenues?

    1. Matching principle
    2. Going concern principle
    3. Cost/benefit analysis
    4. Measurement principle

3. SunFun Company manufactures lawn furniture that is sold to retailers like big box home improvement stores. During October 20X1, SunFun sold furniture to Home Place on account in the amount of $40,000. At the end of 20X1, the balance was still outstanding. In January 20X2, SunFun decided to write off this particular account as it did not appear the balance would ever be collected. Choose the correct journal entry for this transaction below.

    1. Figure 7.16

Allowance for Doubtful Accounts	40,000	
Accounts Receivable		40,000

    2. Figure 7.17

Bad Debt Expense	40,000	
Allowance for Doubtful Accounts		40,000

    3. Figure 7.18

Bad Debt Expense	40,000	
Accounts Receivable		40,000

4. Figure 7.19

Cash	40,000	
Accounts Receivable		40,000

4. Ornate Inc. ended 20X3 with $400 in allowance for bad debts. In 20X4, Ornate wrote off $360 in accounts receivable that appear to be uncollectible. At the end of 20X4, Ornate recorded bad debt expense of $330. What is the balance in the allowance for doubtful accounts at the end of 20X4?

    1. $370
    2. $730
    3. $60
    4. $690

5. Gladson Corporation accrues bad debt expense using the percentage of sales method. At the end of the year, Gladson has $450,000 in accounts receivable and $4,000 in its allowance for doubtful accounts before any entry is made for bad debts. Sales for the year were $1,900,000. The percentage that Gladson has historically used to calculate bad debts is 1 percent of sales. Which of the following is true?

    1. Gladson's bad debt expense for the year is $500.
    2. The percentage of sales method is designed to achieve an accurate balance sheet presentation of the net realizable value of accounts receivable.
    3. Gladson would report an allowance for doubtful accounts of $23,000.
    4. Gladson would need to make an adjustment because the $4,000 remaining balance in the allowance for doubtful accounts indicates they estimated wrong last year.

6. Darlene Corporation has $300,000 in assets, 30 percent of which are current, and $100,000 in liabilities, 40 percent of which are current. Which of the following is true?

    1. Darlene's current ratio is 3 to 1.
    2. Darlene's working capital is $200,000.
    3. Darlene's working capital is $50,000.
    4. The current ratio and working capital are measures of a company's profitability.

7. Fifer Inc. began the year with $450,000 in accounts receivable, ended the year with $590,000 in accounts receivable, and $4,000,000 in sales. Last year Fifer's age of receivables was forty-six days and its receivables turnover was six times. Which of the following is **not** true?

    1. Fifer's age of receivables is fifty-four days.
    2. Fifer's receivables turnover is 7.92 times.
    3. Fifer's age of receivables improved this year over last year.
    4. Analysts monitor the time it takes a company to collect its receivables.

Problems

1. Nuance Company had net credit sales for the year of $500,000. Nuance estimates that 2 percent of its net credit sales will never be collected.
    1. Prepare the entry to record Nuance's bad debt expense for the year.
    2. Nuance had accounts receivable of $100,000 at the end of the year. Show how the net accounts receivable balance would be reported on the balance sheet. Assume that the allowance for doubtful accounts had a beginning balance of zero.
    3. Why is A/R shown at net rather than just showing the full amount?
2. Assume that Nuance in number 1 above used the percentage of receivables method to estimate uncollectible accounts instead of the percentage of sales method. Nuance assumes that 5 percent of accounts receivable will never be collected.
    1. Prepare the entry to record Nuance's bad debt expense for the year.
    2. Show how the net accounts receivable balance would be reported on the balance sheet.
    3. Why are companies allowed to choose between methods of estimating bad debts instead of being required to use one method?
3. Ray's GamePlace sells all the hottest gear and video games. On January 1, 20X7, Ray's had the following account balances:

    Figure 7.20

Accounts Receivable	$27,000
Less Allowance for Doubtful Accounts	(4,000)
Net Accounts Receivable	$23,000

    1. During 20X7, Ray's wrote off $6,000 in uncollectible accounts. Make this journal entry.
    2. One account in the amount of $500 that had been written off in (a) above was collected. Make the journal entries to reinstate the account and show its collection.
    3. During 20X7, Ray's made credit sales of $145,000 and collected $115,000 of accounts receivable. Record these journal entries.
    4. At the end of the year, Ray's determines that approximately 7 percent of its ending accounts receivable balance will not be collected. Ray's uses the percentage of receivables method of calculating bad debts. Make the necessary journal entry.
4. Medwear Corporation is a multinational dealer of uniforms for medical personnel. Medwear is headquartered in a country where dollars are the currency. On March 17, Medwear enters into a transaction to sell uniforms to a hospital in Brussels, Belgium in the amount of 267,000 euros. On this date, the exchange rate was $1.32 for every euro.
    1. Record this transaction for Medwear on March 17 assuming that the uniforms are purchased on account.
    2. On March 31, Medwear prepares financial statements. On this date, the exchange rate is $1.27 per euro. Record the necessary journal entry for Medwear on this date.

5. In Chapter 4 "How Does an Organization Accumulate and Organize the Information Necessary to Prepare Financial Statements? ", Heather Miller started her own business, Sew Cool. The financial statements for December are shown below.

Figure 7.21

Sew Cool Income Statement As of December 31, 20X8	
Revenue	$4,000
Cost of Goods	(2,000)
Gross Profit	2,000
Other Expenses	(1,695)
Earnings before Tax	305
Tax Expense	(107)
Net Income	$198

Figure 7.22

Sew Cool Stmt. of Retained Earnings As of December 31, 20X8	
Retained Earnings, December 1, 20X8	$500
Net Income	198
Dividends	(158)
Retained Earnings, December 31, 20X8	$540

Figure 7.23

Sew Cool
Balance Sheet
December 31, 20X8

Assets		**Liabilities**	
Current		**Current**	
Cash	$940	Accounts Payable	$900
Accounts Receivable	500	Income Tax Payable	120
Less Allowance for Doubtful Accounts	(20)	Total Current Liabilities	$1,020
Net Accounts Receivable	480		
Inventory	700		
Total Current Assets	$2,120		
Noncurrent		**Noncurrent**	
Equipment	$1,000	Notes Payable	$1,060
		Owners' Equity	
		Capital Stock	$500
		Retained Earnings	540
		Total Owners' Equity	$1,040
Total Assets	$3,120	Total Liabilities & Owners' Equity	$3,120

Based on the financial statements, determine the following:

1. Current ratio
2. Working capital
3. Age of receivables
4. Receivables turnover—assume that accounts receivable on 1/1/20X8 were $460.

Comprehensive Problem

This problem will carry through several chapters, building in difficulty. It allows students to continuously practice skills and knowledge learned in previous chapters.

Recall in Chapter 5 "Why Must Financial Information Be Adjusted Prior to the Production of Financial Statements?" that Leon Jackson started Webworks, a Web site design and maintenance firm. You helped him prepare his adjusted trial balance for June. We are going to continue with this problem, preparing Webworks financial statements for July.

Here are Webworks financial statements as of June 30.

Figure 7.24

Webworks
Income Statement
As of June 30

Revenue	$1,050
Expenses	(380)
Earning before Tax	670
Tax Expense	(200)
Net Income	$ 470

Figure 7.25

Webworks
Stmt. of Retained Earnings
As of June 30

Retained Earnings, June 1	$0
Net Income	470
Retained Earnings, June 30	$470

Figure 7.26

Webworks
Balance Sheet
June 30

Assets		**Liabilities**	
Current		**Current**	
Cash	$9,800	Accounts Payable	$280
Accounts Receivable	450	Salaries Payable	100
Supplies Inventory	100	Unearned Revenue	500
Total Current Assets	$10,350	Total Current Liabilities	$880
Noncurrent		**Noncurrent**	
Equipment	$3,000	Notes Payable	$10,000
		Owners' Equity	
		Capital Stock	$2,000
		Retained Earnings	470
		Total Owners' Equity	$2,470
Total Assets	$13,350	Total Liabilities & Owners' Equity	$13,350

The following events occur during July:

a. Webworks purchases additional equipment for $4,000 cash.

b. Webworks purchases supplies worth $90 on account.

c. Webworks pays off its accounts payable and salaries payable from June.

d. Webworks starts and completes four more Web sites and bills clients for $1,800.

e. Recall that in June, Webworks received $500 in advance to design a restaurant Web site. Webworks completes this site during July.

f. Webworks collects $1,200 in accounts receivable.

g. Webworks pays Nancy $500 for her work during the first three weeks of July.

h. Webworks receives $200 in advance to work on a Web site for a local dry cleaner and $300 in advance to work on a Web site for a local vet. Work will not begin on the Web sites until August.

i. Leon's parents have decided to charge rent after seeing how successful his business is and how much space it is taking up in their house. They all agree that rent will be $200 per month. Webworks pays $600 for July, August, and September.

j. Webworks pays taxes of $300 in cash.

Required:

A. Prepare journal entries for the above events.

B. Post the journal entries to T-accounts.

C. Prepare an unadjusted trial balance for Webworks for July.

D. Prepare adjusting entries for the following and post them to your T-accounts.

k. Webworks owes Nancy $200 for her work during the last week of July.

l. Leon's parents let him know that Webworks owes $150 toward the electricity bill. Webworks will pay them in August.

m. Webworks determines that it has $50 worth of supplies remaining at the end of July.

n. Prepaid rent should be adjusted for July's portion.

o. In June, Webworks designed a site for Pauline Smith, but has not yet been fully paid. Leon believes the company may not be able to collect all of its accounts receivable. A local CPA helps Leon determine that similar businesses report an allowance for bad debt at an average of 10 percent of their accounts receivable. Webworks will use this method. Make the bad debt accrual for Webworks.

E. Prepare an adjusted trial balance.

F. Prepare financial statements for July.

7.1 Accounts Receivable and Net Realizable Value

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Understand that accounts receivable are reported at net realizable value.
2. Know that net realizable value is an estimation of the amount of cash to be collected from a particular asset.
3. Appreciate the challenge that uncertainty poses in the reporting of accounts receivable.
4. List the factors to be considered by company officials when estimating the net realizable value of accounts receivable.

Question: The goal of financial accounting is to paint a fairly presented portrait of an organization that enables decision makers to make a reasonable assessment of its financial health and future prospects. This likeness should be communicated based on United States generally accepted accounting principles[1](U.S. GAAP) with no material misstatements included. The success of the conveyance is dependent on the ability of an organization's accountants to prepare financial statements that meet this rigorous standard.

Equally as important, every party analyzing the resulting statements must possess the knowledge necessary to understand the multitude of reported figures and explanations. If appropriate decisions are to result based on this information, both the preparer and the reader need an in-depth knowledge of U.S. GAAP.

For example, the asset section of the balance sheet produced by Dell Inc. as of January 30, 2009, indicates that the company held "accounts receivable, net" amounting to $4.731 billion. What does this figure reflect according to U.S. GAAP?
What information is communicated to decision makers about a company and its accounts receivable when a single number such as $4.731 billion is reported?

Answer: One of the most satisfying results of mastering the terminology, rules, and principles of financial accounting is the ability to understand the meaning of amounts and balances disclosed about an organization. In magazines, newspapers, radio, television, and the Internet, such information is presented and analyzed daily. As with any language, failure to comprehend elements of the discussion leaves the listener lost and feeling vulnerable. However, following a reasonable amount of study, the informational content begins to make sense and quickly becomes useful in arriving at logical financial decisions.

In previous chapters, the term "**accounts receivable**" was introduced to report amounts owed to a company by its customers. Individual balances are generated by sales made on credit. According to U.S. GAAP, the figure that is presented on a balance sheet for accounts receivable is its **net realizable value**—the amount of cash the company estimates will be collected over time from these accounts.

Consequently, officials for Dell Inc. analyzed the company's accounts receivable as of January 30, 2009, and determined that $4.731 billion was the best guess as to the cash that would be collected. The actual total of receivables was higher than that figure but an estimated amount of doubtful accounts had been subtracted in recognition that a portion of these debts could never be collected. For this reason, the asset is identified on the balance sheet as "accounts receivable, net" or, sometimes, "accounts receivable, net of allowance for doubtful accounts" to explain that future losses have already been anticipated and removed.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092914.html

Question: As discussed in previous chapters, many of the figures reported in financial accounting cannot be absolutely correct. Although $4.731 billion is the asset balance shown by Dell, the cash eventually collected might be somewhat higher or lower. Should the lack of exactness in reporting receivables cause concern for decision makers?

Answer: No one will ever be able to predict the exact amount of cash to be received from nearly $5 billion in accounts receivable. In fact, Note One to Dell's financial statements specifically states, "The preparation of financial statements in accordance with GAAP requires the use of management's estimates. These estimates are subjective in nature and involve judgments that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at fiscal year-end, and the reported amounts of revenues and expenses during the fiscal year. Actual results could differ from those estimates."

Knowledgeable decision makers understand that some degree of uncertainty exists with all such balances. However, a very specific figure does appear on Dell's balance sheet. By including this amount, company officials are asserting that they have obtained sufficient evidence to provide reasonable assurance that the amount collected will not be a materially different figure[2].

This is the meaning of an accounts receivable balance presented according to U.S. GAAP. Actual receipts are expected to be close enough to $4.731 billion so that an interested party can rely on this number in arriving at considered decisions about the reporting company's financial health and future prospects. Officials believe they have evidence that any eventual difference with the cash collected will be so small that the same decisions would have been made even if the exact outcome had been known at the time of reporting. The difference between reported and actual figures is most likely to be inconsequential. Once again, though, absolute assurance is not given for such reported balances but merely reasonable assurance.

Clearly, the reporting of receivables moves the coverage of financial accounting into more complicated territory. In the transactions and events analyzed previously, uncertainty was rarely mentioned. The financial impact of signing a bank loan or the payment of a salary can be described to the penny except in unusual situations. Here, the normal reporting of accounts receivable introduces the problem of preparing statements where the ultimate outcome is literally unknown. The very nature of such uncertainty forces the accounting process to address such challenges in some logical fashion.

Questions: Inherent uncertainty is associated with the reporting of receivables. No one can know exactly how much cash will be collected. How do company officials obtain sufficient evidence to provide reasonable assurance that the balance is not materially misstated?
How does any business ever anticipate the amount of cash that will be collected from what can be a massive number of accounts receivable?

Answer: In accounting, reported balances never represent random guesses. Considerable investigation and analysis goes into arriving at financial statement figures. To determine the net realizable value appropriate for accounts receivable, company officials consider many relevant factors such as the following:

- Historical experience of the company in collecting its receivables
- Efficiency of the company's credit verification policy
- Current economic conditions
- Industry averages and trends
- Current percentage of overdue accounts
- Efficiency of company's collection procedures

Dell Inc. explains this process within the notes to its financial statements by indicating that its estimation "is based on an analysis of historical bad debt experience, current receivables aging, expected future write-offs, as well as an assessment of specific identifiable customer accounts considered at risk or uncollectible."

Additional information disclosed by Dell indicates that the company actually held $4.843 billion in accounts receivable but—at the date of the balance sheet—$112 million of these accounts were anticipated to be uncollectible. Thus, the amount of cash that is estimated to be received is the reported $4.731 billion balance ($4.843 billion total less $112 million expected to be uncollectible). Quite obviously, decision makers studying the company will be interested in comparing these data to the figures disclosed by Dell in previous years as well as the information disseminated by competing organizations such as Hewlett-Packard and Apple. Just determining whether the $112 million in uncollectible accounts is a relatively high or low figure is quite significant in evaluating the efficiency of Dell's current operations.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092898.html

Key Takeaways

Because of various uncertainties, many of the figures reported in a set of financial statements represent estimations. Accounts receivable is shown at its net realizable value, the amount of cash expected to be collected. Losses from bad accounts are anticipated and removed based on historical trends and other relevant information. Thus, the figure reported in the asset section of the balance sheet is lower than the total amount of receivables held by the company.

[1]As indicated previously, other versions of generally accepted accounting principles do exist. Unless otherwise noted, in this textbook, the presentation of U.S. GAAP is assumed.

[2]The independent auditors also analyze the available evidence and must believe that it is sufficient to provide the same reasonable assurance in order to render an unqualified opinion on the financial statements.

7.2 Accounting for Uncollectible Accounts

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Understand the reason for reporting a separate allowance account in connection with accounts receivable.
2. Know that bad debt expenses must be anticipated and recorded in the same period as the related sales revenue to conform to the matching principle.
3. Prepare the adjusting entry necessary to reduce accounts receivable to net realizable value and recognize the resulting bad debt expense.

Question: Based on the information provided by Dell Inc., companies seem to maintain two separate ledger accounts in order to report accounts receivables on their balance sheet at net realizable value. One is the sum of all accounts outstanding and the other is an estimation of the amount within that total which will never be collected. Interestingly, the first is a fact and the second is an opinion. The two are then combined to arrive at the net realizable value figure that is shown within the financial statements. Is the amount reported for accounts receivable actually the net of the total due from customers less the anticipated amount of doubtful accounts?

Answer: Yes, companies maintain two separate T-accounts for accounts receivables but that is solely because of the uncertainty involved. If the balance to be collected was known, one account would suffice for reporting purposes. However, that level of certainty is rarely possible.

- An accounts receivable T-account monitors the total due from all of a company's customers.
- A second account (often called the **allowance for doubtful accounts** or the allowance for uncollectible accounts) reflects the estimated amount that will eventually have to be written off as uncollectible.

Whenever a balance sheet is to be produced, these two accounts are netted to arrive at net realizable value, the figure to be reported for this asset.

The allowance for doubtful accounts is an example of a "**contra account**," one that always appears with another account but as a direct reduction to lower the reported value. Here, the allowance serves to decrease the receivable balance to its estimated net realizable value. As a contra asset account, debit and credit rules are applied that are the opposite of the normal asset rules. Thus, the allowance increases with a credit (creating a decrease in the net receivable balance) and decreases with a debit. The more accounts receivable a company expects to be bad, the larger the allowance. This increase, in turn, reduces the net realizable value shown on the balance sheet.

By establishing two T-accounts, a company such as Dell can manage a total of $4.843 billion in accounts receivables while setting up a separate allowance balance of $112 million. As a result, the reported figure—as required by U.S. GAAP—is the estimated net realizable value of $4.731 billion.

Question: Accounts receivable and the offsetting allowance for doubtful accounts are netted with the resulting figure reported on the balance sheet[1]*.How does the existence of doubtful accounts affect the income statement? Sales are made but a portion of the resulting receivables must be reduced because collection is rarely expected to be 100 percent. Does an increase in this allowance create an expense for the reporting company?*

Answer: Previously, an expense was defined as a measure of the outflow or reduction of net assets caused by the reporting company's attempt to generate revenues. If receivables are recorded that will eventually have to be removed because they cannot be collected, an expense occurs. In financial reporting, terms such as "**bad debt expense**," "doubtful accounts expense," or "the provision for uncollectible accounts" are often encountered.

The inherent uncertainty as to the amount of cash that will actually be received affects the physical recording process. To illustrate, assume that a company makes sales on account to one hundred different customers late in Year One for $1,000 each. The earning process is substantially complete at the time of sale and the amount of cash to be received can be reasonably estimated. According to the revenue realization principle found within accrual accounting, the company should immediately recognize the $100,000 revenue generated by these transactions[2].

Figure 7.1 Journal Entry—Year One—Sales Made on Credit

Accounts Receivable	100,000		(increase an asset—debit)
Sales		100,000	(increase a revenue—credit)

Assume further that the company's past history and other relevant information indicate to officials that approximately 7 percent of all credit sales will prove to be uncollectible. An expense of $7,000 (7 percent of $100,000) is anticipated because only $93,000 in cash is expected from these receivables rather than the full $100,000.

The specific identity and the actual amount of these bad accounts will probably not be known for several months. No physical evidence exists at the time of sale to indicate which will become worthless (buyers rarely make a purchase and then immediately declare bankruptcy or leave town). For convenience, accountants wait until financial statements are to be produced before making their estimation of net realizable value. The necessary reduction is then recorded by means of an adjusting entry.

Question: This company holds $100,000 in accounts receivable but only expects to collect $93,000 based on the available evidence. The $7,000 reduction in the asset is an expense. When should the expense be recognized? These sales were made in Year One but the identity of the specific customers who fail to pay and the exact amounts *to be removed will not be determined until Year Two. Should bad debt expense be recognized in the same year as the sales by relying on an estimate or delayed until the actual results are eventually finalized?*

Answer: This situation illustrates how accrual accounting plays such a key role within U.S. GAAP. As discussed previously, the timing of expense recognition according to accrual accounting is based on the matching principle. Where possible, expenses are recorded in the same period as the revenues they helped generate. That guidance is clear. Thus, every company should handle uncollectible accounts in the same manner. The expected expense is the result of making sales to customers who ultimately will never pay. Because the revenue was reported at the time of sale in Year One, the related expense must also be recognized in that year. This handling is appropriate according to accrual accounting even though the $7,000 is only an estimated figure.

Based on U.S. GAAP, when the company produces financial statements at the end of Year One, an adjusting entry is made to (1) reduce the receivables balance to its net realizable value and (2) recognize an expense in the same period as the related revenue.

Figure 7.2 Adjusting Entry—End of Year One—Recognition of Bad Debt Expense for the Period

Bad Debt Expense	7,000		(increase an expense—debit)
Allowance for Doubtful Accounts		7,000	(increase a contra asset—credit)

After this entry is made and posted to the ledger, the Year One financial statements contain the following information based on the adjusted T-account balances (assuming for convenience that no other sales were made on credit during the year):

Figure 7.3 Year One—Financial Statements

Income Statement (Partial) for Year One	
Revenue	
Sales	$100,000
Operating Expenses	
Bad Debt Expense	7,000
Balance Sheet (Partial) at End of Year One	
Current Assets	
Accounts Receivable	$100,000
Allowance for Doubtful Accounts	7,000
Accounts Receivable, Net	$93,000

From this information, anyone studying these financial statements for Year One should understand that an expense estimated at $7,000 was incurred this year because the company made sales that will never be collected. In addition, year-end accounts receivable total $100,000 but have an anticipated net realizable value of only $93,000. Neither the $7,000 nor the $93,000 figure is expected to be exact but the eventual amounts should not be materially different. This basic portrait provides decision makers with fairly presented information about the accounts receivables held by the reporting company.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092899.html

Question: When financial statements are prepared, an expense must be recognized and the receivable balance reduced to net realizable value. However, in the above adjusting entry, why was the accounts receivable account not directly decreased by $7,000 to the anticipated balance of $93,000? This approach is simpler as well as easier to understand. Why was the $7,000 added to an allowance account?
In reporting receivables, why go to the trouble of setting up a separate allowance?

Answer: When the company prepares this adjustment at the end of Year One, it does not yet know which accounts will fail to be collected. Officials are only guessing that $7,000 will prove worthless. Plus, on the date of the balance sheet, the company actually does hold $100,000 in accounts receivable. That figure cannot be reduced directly until the specific identity of the accounts to be written off has been determined. Utilizing a separate allowance allows the company to communicate the expected amount of cash while still maintaining a record of all balances in the accounts receivable T-account.

Key Takeaways

Sales and the ultimate decision that specific accounts receivable will never be collected can happen months apart. During the interim, bad debts are estimated and recorded on the income statement as an expense and on the balance sheet through an allowance account, a contra asset. In that way, the receivable balance is shown at net realizable value while expenses are recognized in the same period as the sale to correspond with the matching principle. When financial statements are prepared, an estimation of the uncollectible amounts is made and an adjusting entry recorded. Thus, the expense, the allowance account, and the accounts receivable are all presented properly according to U.S. GAAP.

[1]Some companies include both accounts on the balance sheet to explain the origin of the reported balance. Others show only the single net figure with additional information provided in the notes to the financial statements.

[2]Because the focus of the discussion here is on accounts receivable and their collectability, the recognition of cost of goods sold as well as the possible return of any merchandise will be omitted. Those topics are discussed in detail in later chapters.

7.3 The Problem with Estimations

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Record the impact of discovering that a specific receivable is uncollectible.
2. Understand the reason that an expense is not recognized when a receivable is deemed to be uncollectible.
3. Record the collection of a receivable that has previously been written off as uncollectible.
4. Recognize that estimated figures often prove to be erroneous but changes in previous year figures are not made if a reasonable estimate was made.

Question: The company in this illustration expects to collect an amount from its receivables that will not materially differ from $93,000. The related $7,000 expense is recorded in the same period as the revenue through an adjusting entry. What happens when an actual account is determined to be uncollectible? For example, assume that on March 13, Year Two, a $1,000 balance proves to be worthless. The customer dies, declares bankruptcy, disappears, or just refuses to make payment. This is not a new expense; $7,000 was already anticipated and recognized in Year One. It is merely the first discovery. How does the subsequent write-off of a receivable as being uncollectible affect the various T-account balances?

Answer: When an account proves to be uncollectible, the receivable T-account is decreased. The $1,000 balance is simply removed. It is no longer viewed as an asset because it does not have future economic benefit. Furthermore, the anticipated amount of bad accounts is no longer $7,000. Because this first worthless receivable has been identified and eliminated, only $6,000 remains in the allowance.

The following journal entry is made to write off this account. This entry is repeated whenever a balance is found to be worthless. No additional expense is recognized. The expense was estimated and recorded in the previous period based on applying accrual accounting and the matching principle.

Figure 7.4 Journal Entry during Year Two—Write-Off of Specific Account as Uncollectible

Allowance for Doubtful Accounts	1,000		(decrease a contra asset—debit)
Accounts Receivable		1,000	(decrease an asset—credit)

The two basic steps in the recording of doubtful accounts are:

1. The amount of bad accounts is estimated whenever financial statements are to be produced. An

adjusting entry then recognizes the expense in the same period as the sales revenue. It also increases the allowance for doubtful accounts (to reduce the reported receivable balance to its anticipated net realizable value).

2. Subsequently, whenever a specific account is deemed to be worthless, the balance is removed from both the accounts receivable and the allowance for doubtful accounts T-accounts. The related expense has been recognized previously and is not affected by the removal of the uncollectible account.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092916.html

Question: After an account receivable has been written off as uncollectible, does the company cease in its attempts to collect the amount due from that customer?

Answer: Organizations always make every possible effort to recover any money that they are owed. Writing off an account simply means that the chances of collection are judged to be slim. However, efforts to force payment will continue, often with increasingly aggressive techniques. If money is ever received from a written off account, the company first reinstates the account by reversing the earlier entry. Then, the cash received is recorded in the normal fashion. To illustrate, assume that the above account is eventually collected from this customer.

Figure 7.5 Journal Entry—Reinstate Account Previously Thought to Be Worthless

Accounts Receivable	1,000		(increase an asset—debit)
Allowance for Doubtful Accounts		1,000	(increase a contra asset—credit)

Figure 7.6 Journal Entry—Collection of Reinstated Account[1]

Cash	1,000		(increase an asset—debit)
Accounts Receivable		1,000	(decrease an asset—credit)

Question: In this illustration, at the end of Year One, the company estimated that $7,000 of its accounts receivable will ultimately prove to be uncollectible. However, in Year Two, that figure is likely to be proven wrong. The actual amount might well be $6,000 or $8,000 or many other numbers. When the precise figure is known, does a company return to its Year One financial statements and adjust them to this correct balance?
Should a company continue reporting an estimated figure once it has been shown to be incorrect?

Answer: According to U.S. GAAP, if a number is reported based on a reasonable estimation, any subsequent differences with actual amounts are not handled retroactively (by changing the previously released figures). For example, if uncollectible accounts here prove to be $8,000, the company does not adjust the balance reported as the Year One bad debt expense from $7,000 to $8,000. It continues to report $7,000 for that period even though that number is now known to be wrong[2].

There are several practical reasons for the accountant's unwillingness to adjust previously reported estimations unless they were clearly unreasonable or fraudulent:

1. Most decision makers are well aware that many reported figures only present estimates. Discrepancies are expected and should be taken into consideration when making decisions based on numbers presented in a set of financial statements. In analyzing this company and its financial health, astute investors and creditors anticipate that the total of bad accounts will ultimately turn out to be an amount around $7,000 rather than exactly $7,000.
2. Because an extended period of time often exists between issuing statements and determining actual balances, most parties will have already used the original information to make their decisions. Knowing the exact number now does not allow them to undo those prior actions. There is no discernable benefit from having updated figures as long as the original estimate was reasonable.
3. Financial statements contain numerous estimations and nearly all will prove to be inaccurate to some degree. If exactness were required, correcting each of these previously reported figures would become virtually a never-ending task for a company and its accountants. Scores of updated statements might have to be issued before a "final" set of financial figures became available after several years. For example, the exact life of a building might not be known for fifty years. Decision makers want information that is usable as soon as possible. Speed in reporting is more important than absolute precision.
4. At least theoretically, half of the differences between actual and anticipated results should make the reporting company look better and half make it look worse. If so, the corrections needed to rectify all previous estimation errors will tend to offset and have little overall impact on a company's reported income and financial condition.

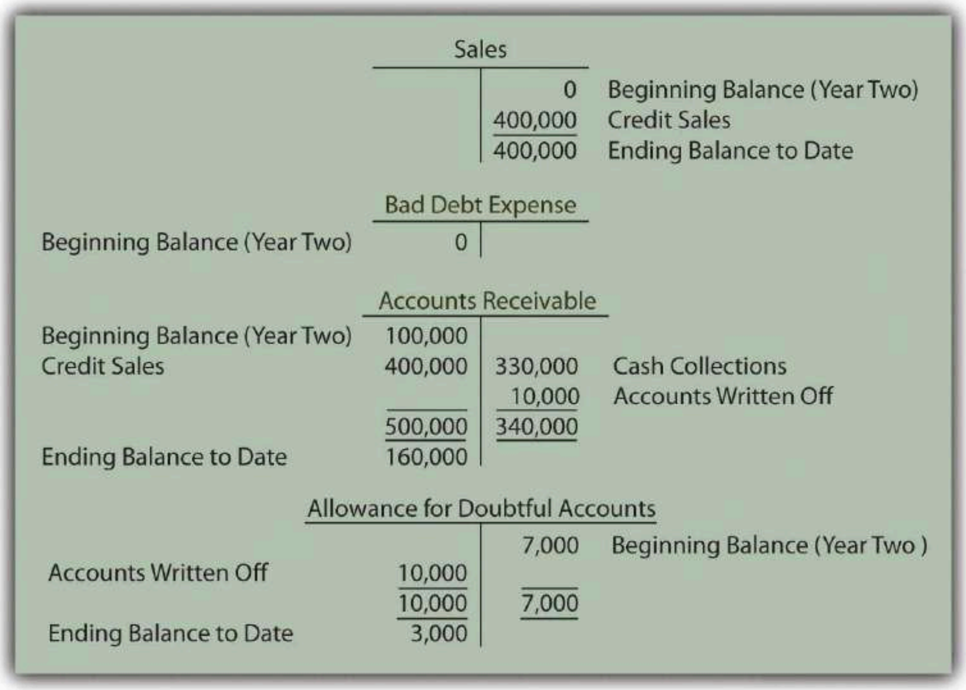
Thus, no change is made in financial figures that have already been released whenever a reasonable estimation proves to be wrong. However, differences that arise should be taken into consideration in creating current and subsequent statements. For example, if the Year One bad debts were expected to be 7 percent, but 8 percent actually proved to be uncollectible, the accountant might well choose to use a higher percentage at the end of Year Two to reflect this new knowledge.

Question: To carry this illustration one step further, assume that $400,000 in new credit sales are made during Year Two while cash of $330,000 is collected. Uncollectible receivables totaling $10,000 are written off in that year. What balances appear in the various T-accounts at the end of the subsequent year to reflect sales, collections, and the write-offs of receivables?

Answer: Sales and bad debt expense were reported previously for Year One. However, as income statement accounts, both were closed out so as to begin Year Two with zero balances. They are temporary accounts. In contrast, accounts receivable and the allowance for doubtful accounts appear on the balance sheet and retain their ending figures going into each subsequent period. They are permanent accounts. These two T-accounts will still show $100,000 and $7,000 respectively at the beginning of Year Two.

Assuming that no adjustments have yet been made, these four accounts hold the following balances at the end of Year Two based on appropriate journal entries. Notice that the expense account remains at zero until the end-of-year estimation is made and recorded.

Figure 7.7 End of Year Two—Sales, Receivables, and Bad Debt Balances



Question: In the above T-accounts, the balances represent the account totals for Year Two prior to year-end adjusting entries. Why does a debit balance of $3,000 appear in the allowance for doubtful accounts prior to the recording of the necessary adjustment?
When a debit balance is found in the allowance for doubtful accounts, what does this figure signify?

Answer: When the Year One financial statements were produced, $7,000 was estimated as the amount of the receivables that would eventually be identified as uncollectible. In Year Two, the actual total written off turned out to be $10,000. The original figure was too low by $3,000. The difference is now reflected by the debit remaining in the allowance account. Until the estimation for the new year is determined and recorded, the balance residing in the allowance account indicates a previous underestimation (an ending debit balance) or overestimation (a credit) of the amount of worthless accounts[3].

Key Takeaways

Bad debt expense is estimated and recorded in the period of sale to correspond with the matching principle. Subsequent write-offs of specific accounts do not affect the expense further. Rather, both the asset and the allowance for doubtful accounts are decreased at that time. If a written off account is subsequently collected, the allowance account is increased to reverse the previous impact. Estimation errors are to be anticipated; perfect predictions are rarely possible. When the amount of uncollectible accounts differs from the original figure recognized, no retroactive adjustment is made if a reasonable estimation was made. Decisions have already been made by investors and creditors based on the original data and cannot be reversed. These readers of the statements should have understood that the information could not possibly reflect exact amounts.

[1]Many companies combine these two entries for convenience. The debit to accounts receivable in the first entry exactly offsets the credit in the second. Thus, the same recording impact is achieved by simply debiting cash and crediting the allowance for doubtful accounts. However, the rationale for that single entry is not always as evident to a beginning student.

[2]As will be discussed in subsequent chapters, previously issued financial statements are restated if found to contain material misstatements or in a few other specific circumstances. However, a difference between an actual figure and a reasonable estimation is not handled in this manner. In real life, determining whether a previously reported amount was a reasonable estimation can be the subject of intense debate.

[3]The $3,000 debit figure is assumed here for convenience to be solely the result of underestimating uncollectible accounts in Year One. Several other factors may also be present. For example, the balance in the allowance for doubtful accounts will be impacted by credit sales made in the current year that are discovered to be worthless before the end of the period. Such accounts reduce the allowance T-account prior to the recognition of an expense. The residual allowance balance is also affected by the collection of accounts that were written off as worthless in an earlier year. As described earlier, the allowance is actually increased by that event. However, the financial reporting is not altered by the actual cause of the final allowance figure.

7.4 Estimating the Amount of Uncollectible Accounts

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Estimate and record bad debts when the percentage of sales method is applied.
2. Estimate and record bad debts when the percentage of receivables method is applied.
3. Explain the reason that bad debt expense and the allowance for doubtful accounts will normally report different figures.
4. Understand the purpose and maintenance of a subsidiary ledger.

Question: The final step in reporting receivables at the end of Year Two is the estimation of the bad accounts incurred during this second year and the preparation of the related adjusting entry. According to the ledger balances, sales on credit for the year were $400,000, remaining accounts receivable amount to $160,000, and a $3,000 debit sits in the allowance for doubtful accounts. No entry has yet been made for the Year Two bad debt expense. How is the estimation of uncollectible accounts derived each year?

Answer: Much of financial accounting is quite standardized. However, estimations can be made by any method that is considered logical. After all, it is an estimate. Over the decades, two different approaches have come to predominate when predicting the amount of uncollectible accounts. As long as company officials obtain sufficient evidence to support the reported numbers, either way can be applied.

Percentage of sales method. This alternative computes doubtful accounts expense by anticipating the percentage of sales (or credit sales) that will eventually fail to be collected. The percentage of sales method is sometimes referred to as an income statement approach because the only number being estimated (bad debt expense) appears on the income statement.

Percentage of receivables method. Here, the proper balance for the allowance for doubtful accounts is determined based on the percentage of ending accounts receivable that are presumed to be uncollectible. This method is labeled a balance sheet approach because the one figure being estimated (the allowance for doubtful accounts) is found on the balance sheet. A common variation used by many companies is the "**aging method**," which first categorizes all receivable balances by age and then multiplies each of the individual totals by a different percentage. Normally, a higher rate is used for accounts that are older because they are considered more likely to become uncollectible.

Question: Assume that this company chooses to use the percentage of sales method. All available evidence is studied by officials who come to believe that 8 percent of credit sales made during Year Two will prove to be worthless. In applying the percentage of sales method, what adjusting entry is made at the end of the year so that financial statements can be prepared?

Answer: According to the general ledger, the company generated $400,000 in credit sales during Year Two. If uncollectible accounts are expected to be 8 percent of that amount, the expense is reported as $32,000 ($400,000 × 8 percent). Bad debt expense (the figure estimated) must be raised from its present zero balance to $32,000.

Figure 7.8 Adjusting Entry for Year Two—Bad Accounts Estimated as a Percentage of Sales

Bad Debt Expense	32,000		(increase an expense—debit)
Allowance for Doubtful Accounts		32,000	(increase a contra asset—credit)

This adjustment increases the expense to the appropriate $32,000 figure, the proper percentage of the sales figure. However, the allowance account already held a $3,000 debit balance ($7,000 Year One estimation less $10,000 accounts written off). As can be seen in the T-accounts, the $32,000 recorded expense results in only a $29,000 balance for the allowance for doubtful accounts.

Figure 7.9 Resulting T-Accounts, Based on Percentage of Sales Method

Bad Debt Expense

	Debit	Credit	
Beginning Balance	0		
Expense Adjustment	32,000		
Ending Balance	32,000		

Allowance for Doubtful Accounts

	Debit	Credit	
		7,000	Beginning Balance
Accounts Written Off	10,000	32,000	Expense Adjustment
	10,000	39,000	
		29,000	Ending Balance

After this adjustment, the figures appearing in the financial statements for Year Two are as follows:

Figure 7.10 Bad Accounts Estimated Based on 8 Percent of Sales

Income Statement (Partial) for Year Two	
Revenue	
Sales	$400,000
Operating Expenses	
Bad Debt Expense	32,000
Balance Sheet (Partial) at End of Year Two	
Current Assets	
Accounts Receivable	$160,000
Allowance for Doubtful Accounts	29,000
Accounts Receivable, Net	$131,000

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092879.html

Question: How can bad debt expense be reported as $32,000 while the allowance for doubtful accounts shows a balance of only $29,000?
Should those two numbers not always be identical in every set of financial statements?

Answer: In this introductory coverage, the difference in these accounts is assumed to be caused solely by the failure of previous estimations to be accurate[1]. Last year, the doubtful accounts expense for this company was reported as $7,000 but accounts with balances totaling $10,000 proved to be uncollectible. Because companies do not go back to the statements of previous years to fix numbers when a reasonable estimate was made, the expense is $3,000 higher in the current period to compensate.

Mechanically, the underestimation still exists in the accounting records in Year Two. It creates the $3,000 debit in the allowance for doubtful accounts before the expense adjustment. Thus, although the current expense is $32,000 (8 percent of sales), the allowance is reported as only $29,000 (the $32,000 expense offset by the $3,000 debit balance remaining from the prior year).

Students are often concerned because these two reported numbers differ. However, both are merely estimates. The actual amount of worthless accounts is likely to be a number somewhat different from either $29,000 or $32,000. Therefore, the disagreement caused by the lingering impact of the $3,000 Year One underestimation should not be an issue as long as company officials believe that neither of the reported balances is materially misstated.

Question: The percentage of receivables method handles this process a bit differently. Assume that the Year Two adjusting entry has not yet been made so that bad debt expense remains at zero and the allowance for doubtful accounts still holds a $3,000 debit balance. However, the company has chosen to use the percentage of receivables method rather than the percentage of sales method. Officials have looked at all available evidence and come to the conclusion that 15 percent of ending accounts receivable ($160,000 × 15 percent or $24,000) is most likely to prove to be uncollectible. How does application of the percentage of receivables method affect the recording of doubtful accounts?

Answer: The percentage of receivables method (or the aging method if that variation is used) views the estimated figure of $24,000 as the proper total for the allowance for doubtful accounts. Thus, the accountant must turn the $3,000 debit balance residing in that contra asset account into the proper $24,000 credit. That change can only be accomplished by recognizing an expense of $27,000. Under the percentage of receivables method, after the adjustment has been recorded, the allowance balance will equal the estimate ($24,000). The expense is the amount needed to arrive at this allowance figure.

Figure 7.11 Adjusting Entry for Year Two—Bad Accounts Estimated as a Percentage of Receivables

Bad Debt Expense	27,000		(increase an expense—debit)
Allowance for Doubtful Accounts		27,000	(increase a contra asset—credit)

As shown in the T-accounts below, this entry successfully changes the allowance from a $3,000 debit balance to the desired $24,000 credit. Because bad debt expense had a zero balance prior to this entry, it is now based solely on the $27,000 amount needed to establish the proper allowance.

Figure 7.12 Resulting T-Accounts, Based on Percentage of Receivables Method

Allowance for Doubtful Accounts

		7,000	Beginning Balance
Accounts Written Off	10,000	27,000	Expense Adjustment
	10,000	34,000	
		24,000	Ending Balance

Bad Debt Expense

Beginning Balance	0	
Expense Adjustment	27,000	
Ending Balance	27,000	

After this adjusting entry, the figures appearing in the financial statements for Year Two are as follows:

Figure 7.13 Bad Accounts Estimated Based on 15 Percent of Receivables

Income Statement (Partial) for Year Two	
Revenue	
Sales	$400,000
Operating Expenses	
Bad Debt Expense	27,000
Balance Sheet (Partial) at End of Year Two	
Current Assets	
Accounts Receivable	$160,000
Allowance for Doubtful Accounts	24,000
Accounts Receivable, Net	$136,000

Once again, the difference between the expense ($27,000) and the allowance ($24,000) is $3,000 as a result of the estimation being too low in the prior year. The current year expense must be higher.

Either approach can be used as long as adequate support is generated for the numbers reported. They are just two ways to estimate the effect of bad debts. However, financial accounting does stress the importance of consistency to help make the numbers comparable from year to year. Once a method is selected, it normally must continue to be used in all subsequent periods.

Under the percentage of sales method, the expense account is aligned with the volume of sales. In applying the percentage of receivables method, determining the uncollectible portion of ending receivables is the central focus. Regardless of the approach, both bad debt expense and the allowance for doubtful accounts are simply the result of estimating the final outcome of an uncertain event—the collection of accounts receivable.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092880.html

Question: A company such as Dell Inc. must have thousands or even hundreds of thousands of separate receivables. The accounts receivable T-account maintains the total dollar amount owed to the company but does not indicate the balance due from each individual customer. How does an accounting system monitor all the specific receivable amounts? That has to be essential information for any organization for billing and collection purposes.

Answer: As indicated, a general ledger account only reflects the total at the present time. In many cases, as with accounts receivable, the composition of that balance is also important information. For those T-accounts, the accounting system can be expanded to include a **subsidiary ledger** to maintain data about the various individual components making up the account total.

In the previous illustration, the company reports $160,000 as the total of its accounts receivable at the end of Year Two. A separate subsidiary ledger should be in place to monitor the amounts owed by each customer (Mr. A, Ms. B, and so on). The general ledger figure is used whenever financial statements are to be produced. The subsidiary ledger allows the company to access individual account balances so that appropriate action can be taken if specific receivables grow too large or become overdue.

When a subsidiary ledger is maintained, the accounting system can be programmed so that each entry into the designated general ledger T-account requires an immediate parallel increase or decrease to the appropriate individual account. Thus, a $75 sale on credit to Mr. A raises the overall accounts receivable total in the general ledger by that amount while also increasing the balance listed for Mr. A in the subsidiary ledger.

Subsidiary ledgers can be utilized in connection with any general ledger account where the availability of component information is helpful. Other than accounts receivable, they are commonly set up for inventory, equipment, and accounts payable. As might be imagined, big companies maintain subsidiary ledgers for virtually every T-account, whereas small companies are likely to limit use to accounts receivable and—possibly—a few other large balances.

Before computer systems became common, keeping the total of thousands of individual accounts in a subsidiary ledger in agreement with the corresponding general ledger T-account balance was an arduous task. Mechanical errors (mathematical problems as well as debit and credit mistakes) tended to abound. However, current electronic systems are typically designed so that the totals reconcile automatically.

Key Takeaways

Each year, an estimation of uncollectible accounts must be made as a preliminary step in the preparation of financial statements. Some companies use the percentage of sales method, which calculates the expense to be recognized, an amount which is then added to the allowance for doubtful accounts. Other companies use the percentage of receivable method (or a variation known as the aging method). It determines the ending balance for the allowance. The reported expense is the amount needed to adjust the allowance to this ending total. Both methods provide no more than an approximation of net realizable value based on the validity of the percentages that are applied.

[1]See immediately preceding endnote for other reasons as to why these balances can differ.

7.5 Remeasuring Foreign Currency Balances

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Recognize that transactions denominated in a foreign currency are now quite common.
2. Understand the necessity of remeasuring foreign currency balances into a company's functional currency prior to the preparation of financial statements.
3. Appreciate the problem that fluctuations in exchange rates cause when foreign currency balances are reported in a set of financial statements.
4. Know which foreign currency balances are reported using a historical exchange rate and which balances are reported using the exchange rate in effect on the date of the balance sheet.
5. Understand that gains and losses are reported on a company's income statement when certain foreign currency balances are remeasured using new currency exchange rates.

Question: In today's global economy, many U.S. companies make a sizable amount of their sales internationally. The Coca-Cola Company, for example, generated approximately 74 percent of its revenues in 2008 outside North America. In such cases, U.S. dollars might still be the currency received. However, occasionally and sometimes often, U.S. companies make sales that will be settled in a foreign currency such as the Mexican peso or the Japanese yen. What reporting problems are created when a credit sale is denominated in a foreign currency?

Answer: This situation is a perfect example of why having an authoritative standard for financial accounting, such as U.S. GAAP, is so important for communication purposes. Foreign currency balances are extremely common in today's world. For many companies, sales, purchases, expenses and the like can be denominated in dozens of different currencies. Mechanically, many methods of reporting such figures are available. Without standardization, decision makers would likely be faced with analyzing similar companies possibly reporting foreign balances in a variety of ways. Assessing the comparative financial health and future prospects of organizations using different types of accounting will always pose an extremely difficult challenge.

The basic problem with reporting foreign currency balances is that exchange rates are constantly in flux. The price of one euro in terms of U.S. dollars changes many times each day. If these rates remained constant, a single conversion value could be determined at the time of the initial transaction and then used consistently for reporting purposes. However, exchange rates are rarely fixed; they often change moment by moment. For example, if a sale is made on account with the money to be received in a foreign currency in sixty days, the relative worth of that balance will probably move up and down many times before collection. When such values float, the reporting of foreign currency amounts poses a challenge for financial accounting with no easy resolution.

Question: Exchange rates that vary over time create a reporting problem for companies working in international markets. To illustrate, assume a U.S. company makes a sale of a service to a Mexican company on December 9, Year One, for 100,000 Mexican pesos that will be paid at a later date. The exchange rate when the sale was made is assumed to be 1 peso equal to $0.08. However, by the end of Year One when financial statements are produced, the exchange rate has changed to 1 peso being equal to $0.09. What reporting does a U.S. company make of transactions that are denominated in a foreign currency if the exchange rate changes as time passes?[1]

Answer: At the time of the sale, reporting is easy. The 100,000 pesos has the equivalent value of $8,000 (100,000 pesos × $0.08) so that the following journal entry can be produced. Even though 100,000 pesos will be physically received, $8,000 is reported so that all balances on the seller's financial statements are stated in terms of U.S. dollars.

Figure 7.14 Journal Entry—December 9, Year One—Sale of Services Made for 100,000 Pesos

Accounts Receivable	8,000		(increase an asset—debit)
Sale of Services		8,000	(increase a revenue—credit)

By the end of the year, the exchange rate is 1 peso equal to $0.09. The Mexican peso is worth a penny more relative to the U.S. dollar. Thus, 100,000 pesos can now be changed into $9,000 (100,000 × $0.09). When adjusting entries are prepared in connection with the production of financial statements, one or both of the above account balances could remain at $8,000 or be updated to $9,000. The sale took place when the exchange rate was $0.08 but, now, before the money is collected, the peso has risen in value to $0.09. FASB had to set a standard rule as to whether the current rate or the historical rate was appropriate for reporting foreign currency balances.

For over twenty-five years, U.S. GAAP has required that **monetary assets and liabilities** denominated in a foreign currency be reported at the current exchange rate as of the balance sheet date. All other balances continue to be shown at the exchange rate in effect on the date of the original transaction. That is the approach that all organizations adhering to U.S. GAAP must follow. Both the individuals who produce financial statements as well as the outside decision makers who use them should understand that this rule is applied.

Monetary assets and liabilities are amounts currently held as cash or that will require a future transfer of a specified amount of cash. In the coverage here, for convenience, such monetary accounts will be limited to cash, receivables, and payables. Because these balances reflect current or future cash amounts, the current exchange rate is always viewed as the most relevant. In this illustration, the actual value of the receivable (a monetary asset) has changed in terms of U.S. dollars. The 100,000 pesos that will be collected now have an equivalent value of $0.09 each rather than $0.08. The reported receivable is updated to $9,000 (100,000 pesos × $0.09).

Cash, receivables, and payables denominated in a foreign currency must be adjusted for reporting purposes whenever exchange rates fluctuate. All other account balances (equipment, sales, rent expense, dividends, and the like) reflect historical events and not future cash flows. Thus, they retain the rate that was appropriate at the time of the original transaction and no further changes are ever needed. The sales figure is not a monetary asset or liability, so the $8,000 balance continues to be reported regardless of the relative value of the peso.

Question: Changes in exchange rates affect the reporting of monetary assets and liabilities. Those amounts are literally worth more or less U.S. dollars as the relative value of the currency fluctuates over time. For the two balances above, the account receivable has to be remeasured on the date of the balance sheet because it is a monetary asset while the sales balance remains $8,000 permanently. How is this change in the receivable accomplished?
When monetary assets and liabilities denominated in a foreign currency are remeasured for reporting purposes, how is the increase or decrease in value reflected?

Answer: In this example, the value of the 100,000-peso receivable is raised from $8,000 to $9,000. When the amount reported for monetary assets and liabilities increases or decreases because of changes in currency exchange rates, a gain or loss is recognized on the income statement. Here, the receivable is now reported $1,000 higher. The company's financial condition has improved and a gain is recognized. If the opposite occurs and the reported value of monetary assets declines (or the value of monetary liabilities increases), a loss is recognized. The following adjusting entry is appropriate.

Figure 7.15 Adjusting Entry at December 31, Year One—Remeasurement of 100,000 Pesos Receivable

Accounts Receivable	1,000		(increase an asset—debit)
Gain in Value of Foreign Currency Receivable		1,000	(increase a revenue—credit)

On its balance sheet, this company now reports a receivable as of December 31, Year One, of $9,000 while its income statement for that year shows sales revenue of $8,000 as well as the above gain of $1,000. Although the transaction was actually for 100,000 Mexican pesos, the U.S. company records these events in terms of U.S. dollars according to the provisions of U.S. GAAP.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092881.html

Key Takeaways

Foreign currency balances are common because many companies buy and sell products and services internationally. Although many of these transactions are denominated in foreign currencies, they are reported in U.S. dollars when financial statements are produced for distribution in this country. Because exchange rates often change rapidly, many equivalent values could be used to report these balances. According to U.S. GAAP, monetary assets and liabilities (cash as well as receivables and payables to be settled in cash) are updated for reporting purposes using the exchange rate at the date of the balance sheet. Any change in one of these accounts creates a gain or loss to be recognized on the income statement. All other foreign currency balances (land, buildings, sales, and the like) continue to be shown at the historical exchange rate in effect at the time of the original transaction.

[1]As has been stated previously, this is an introductory textbook. Thus, a more in-depth examination of many important topics, such as foreign currency balances, can be found in upper-level accounting texts. The coverage here of foreign currency balances is only designed to introduce students to basic reporting problems and their resolutions.

7.6 A Company's Vital Signs—Accounts Receivable

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Compute the current ratio, the amount of working capital, and other amounts pertinent to the reporting of accounts receivable.
2. Describe the meaning of the current ratio.
3. Describe the meaning of the working capital balance.
4. Calculate the amount of time that passes before the average accounts receivable is collected and explain the importance of this information.
5. List techniques that an organization can implement to speed up the collection of accounts receivable.

Question: Many individuals analyze financial statements to make logical and appropriate decisions about a company's financial health and well being. This process is somewhat similar to a medical doctor performing a physical examination on a patient. The doctor often begins by checking various vital signs, such as heart rate, blood pressure, weight, cholesterol level, and body temperature, looking for any signs of a serious change or problem. For example, if a person's heart rate is higher than expected or if blood pressure has increased significantly since the last visit, the doctor will investigate with special care.

In examining the financial statements of a business or other organization, are there vital signs that should be studied as a routine matter?

Answer: Financial statements are extremely complex and most analysts have certain preferred figures or ratios that they believe to be especially significant when investigating a company. For example, previously, the **current ratio** and the amount of **working capital** were computed based on the amount of current assets (those that will be used or consumed within one year) and current liabilities (those that will be paid within one year):

current ratio = current assets/current liabilities
working capital = current assets – current liabilities.

Both of these figures reflect a company's ability to pay its debts and have enough monetary resources still available to generate profits in the near future. Both investors and creditors frequently calculate, study, and analyze these two amounts. They are vital signs that help indicate the financial health of a business or other organization.

For example, on December 31, 2008, Avon Products reported a current ratio of 1.22 to 1.00 (current assets of \$3.557 billion divided by current liabilities of \$2.912 billion) while Caterpillar disclosed working capital of \$4.590 billion (current assets of \$31.953 billion less current liabilities of \$27.363 billion).

Whether these numbers are impressive or worrisome usually depends on a careful comparison with (a) other similar companies and (b) results from prior years.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092882.html

Question: Because this chapter deals with accounts receivable, what other vital signs might be studied specifically in connection with a company's receivable balance?

Answer: One indication of a company's financial health is its ability to collect receivables in a timely fashion. Money cannot be put to productive use until it is received. For that reason, companies work to encourage payments being made as quickly as possible. Furthermore, as stated previously, the older a receivable becomes, the more likely it is to prove worthless.

Thus, interested parties (both inside a company as well as external) frequently monitor the time taken to collect receivables. Quick collection is normally viewed as good whereas a slower rate can be a warning sign of possible problems. However, as with most generalizations, exceptions do exist so further investigation is always advised.

The age of a company's receivables is determined by dividing its average sales per day into the receivable balance. Credit sales are used in this computation if known but the total sales figure often has to serve as a substitute because of availability. The sales balance is divided by 365 to derive the amount sold per day. This daily balance is then divided into the reported receivable to arrive at the average number of days that the company waits to collect its accounts. A significant change in the age of receivables will be quickly noted by almost any interested party.

age of receivables = receivables/sales per day

If a company reports sales for the current year of \$7,665,000 and currently holds \$609,000 in receivables, it requires twenty-nine days on the average to collect a receivable.

sales per day = \$7,665,000/365 or \$21,000
age of receivables = \$609,000/\$21,000 or 29 days

As a practical illustration, for the year ended January 30, 2009, Dell Inc. reported net revenue of \$61.101 billion. The January 30, 2009, net accounts receivable balance for the company was \$4.731 billion, which was down from \$5.961 billion as of February 1, 2008. The daily sales figure is calculated as \$167.4 million (\$61.101 billion/365 days). Thus, the average age of Dell's ending receivable balance at this time was 28.3 days (\$4.731 billion/\$167.4 million).

A similar figure is referred to as the **receivables turnover** and is computed by the following formula:

receivables turnover = sales/average receivables.

For Dell Inc., the average receivable balance for this year was $5.346 billion ([$4.731 billion + $5.961]/2). The receivables turnover can be determined for this company as 11.4 times:

receivables turnover = $61.101 billion/$5.346 billion = 11.4.

The higher the receivable turnover, the faster collections are being received.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092900.html

Question: If company officials notice that the
average age of accounts receivable
is getting older, what type of remedial actions can be taken?
How does a company reduce the average number of days that are required to collect receivables so that cash is available more quickly?

Answer: A number of strategies can be used by astute officials to shorten the time between sales being made and cash collected. Below are a few examples. Unfortunately, all such actions have a cost and can cause a negative impact on the volume of sales or create expenses that might outweigh the benefits of quicker cash inflows. Management should make such decisions with extreme care.

- Require a tighter review of credit worthiness before selling to a customer on credit. If sales on account are only made to individuals and companies with significant financial strength, the quantity of delayed payments should decline.
- Work to make the company's own accounting system more efficient so that bills (sales invoices) are sent to customers in a timely manner. Payments are rarely made—even by the best customers—before initial notification is received. If the billing system is not well designed and effectively operated, that process can be unnecessarily slow.
- Offer a discount if a customer pays quickly. Such reductions reward the customer for fast action.
- Send out second bills more quickly. Customers often need reminding that a debt is due. An invoice marked "late" or "overdue" will often push the recipient into action. A company might send out this notice after thirty days—as an example—rather than wait for forty-five days.
- Instigate a more aggressive collection policy for accounts that are not paid on time. Companies can use numerous strategies to "encourage" payment and begin applying these steps at an earlier point in time.

Most companies monitor the age of receivables very carefully and use some combination of these types of efforts whenever any sign of problem is noted.

Key Takeaways

Decision makers analyzing a particular company often look beyond reported balances in search of clues as to its financial strength or weakness. Both the current ratio and the amount of working capital provide an indication of short-term liquidity and profitability. The age of receivables and the receivables turnover are measures of the speed or slowness of cash collections. Any change in the time needed to obtain payments from customers should be carefully considered when studying a company. Management can work to shorten the number of days it takes to receive cash by altering credit, billing, and collection policies or possibly by offering discounts or other incentives for quick payment.

Talking with a Real Investing Pro (Continued)

Following is a continuation of our interview with Kevin G. Burns.

Question: Let's say that you are analyzing a particular company and are presently looking at its current assets. When you are studying a company's accounts receivable, what types of information tend to catch your attention?

Kevin Burns: I look at three areas specifically. First, how long does it take for the company to collect its accounts receivable especially compared to previous periods? I don't like to see radical changes in the age of receivables without some logical explanation. Second, how lenient is the company in offering credit? Are they owed money by weak customers or a small concentration of customers? Third, does the company depend on interest income and late charges on their accounts receivable for a significant part of their revenue? Some companies claim to be in business to sell products but they are really finance companies because they make their actual profits from finance charges that are added to the accounts receivable. It is always important to know how a company earns money.

Video Clip

" href="http://app.wistia.com/embed/medias/0ef7c04ad3" class="replaced-iframe">(click to see video)

Unnamed Author talks about the five most important points in Chapter 7 "In a Set of Financial Statements, What Information Is Conveyed about Receivables?".

Chapter 8: How Does a Company Gather Information about Its Inventory?

Video Clip

(click to see video)

Joe introduces Chapter 8 “How Does a Company Gather Information about Its Inventory?” and speaks about the course in general.

8.1 Determining and Reporting the Cost of Inventory

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Understand that inventory is recorded initially at its historical cost.
2. Provide the guiding rule for identifying expenditures and other costs that must be capitalized in the reporting of inventory.
3. Explain the rationale for offering a cash discount for payments made within a specified period of time as well as the accounting for such cost reductions.

Question: The asset section of the February 28, 2009, balance sheet produced by Best Buy Co. Inc. reports net accounts receivable of $1.868 billion. Based on discussions in the previous chapter, a decision maker should know that this figure reflects net realizable value—the estimation by officials of the amount of cash that will be collected from the receivables owed to the company by its customers. Knowledge of financial accounting rules allows an individual to understand the information being conveyed in a set of financial statements.

As is common, the next account that appears on Best Buy's balance sheet is inventory, all the items held on that date that were acquired for sales purposes—televisions, cameras, computers, and the like. The figure disclosed by the company for this asset is $4.753 billion. Does this balance also indicate net realizable value—the cash expected to be generated from the company's merchandise—or is different information reflected?
On a balance sheet, what does the amount reported for inventory represent?

Answer: The challenge of analyzing the various assets reported by an organization would be reduced substantially if every monetary number disclosed the same basic information, such as net realizable value. However, over the decades, virtually every asset has come to have its own individualized method of reporting, one created to address the special peculiarities of that account. Thus, the term "presented fairly" often has a totally different meaning for each asset. Reporting accounts receivables, for example, at net realizable value has no impact on the approach that has come to be accepted for **inventory**.

The reporting of inventory is especially unique because the reported balance is not as standardized as with accounts receivable. For example, under certain circumstances, the balance sheet amount shown for inventory actually can reflect net realizable value. Several other meanings for the reported balance, though, are more likely. The range of accounting alternatives encountered in analyzing this asset emphasizes the importance of reading the notes included with financial statements rather than fixating on a few reported numbers alone. Without careful study of the additional disclosures, a decision maker simply cannot know what Best Buy means by the $4.753

billion figure reported for "merchandise inventories." Another company could show the identical number for its inventory and still be reporting considerably different information.

Question: Accounting for inventory seems particularly complicated. A logical approach to the coverage here is needed. In coming to understand the reporting methodology that is utilized with this asset, where should the discussion begin?
What is the first issue that an accountant faces in establishing an appropriate balance for inventory so that it is reported in conformity with U.S. GAAP?

Answer: The study of inventory and its financial reporting should begin by defining "cost." In acquiring each item, officials make the decision to allocate a certain amount of scarce resources. What did the company expend to obtain its inventory? That is a reasonable question to address.

To illustrate, assume that a sporting goods company (Rider Inc.) acquires a new bicycle (Model XY-7) to sell. Rider's accounting system should be designed to determine the cost of this piece of inventory, the sacrifice that the company chose to make to obtain the asset. Assume that a price of $250 was charged by the manufacturer (Builder Company) for the bicycle and the purchase was made by Rider on credit. Rider spends another $9 to transport the item from the factory to one of its retail stores and $6 to have the pieces assembled so that the bicycle can be displayed in the salesroom for customers to examine.

In accounting for the acquisition of inventory, cost includes all normal and necessary amounts incurred to get the item into the condition and position to be sold. Hence, by the time this bicycle has reached Rider's retail location and been readied for sale, its cost to the sporting goods company is $265.

Figure 8.1 Maintaining a Cost for Inventory Item

Rider, Inc.
Subsidiary Ledger
Bicycle—Model XY-7

Invoice Price—Charged by Manufacturer	$250	
Transportation-in—Delivery to Company's Store	9	
Assembly	6	
Cost of Inventory (Bicycle)	$265	Quantity—1

The charges for delivering this merchandise and assembling the parts were included in the cost of the asset (the traditional term for adding a cost to an asset account, **capitalization**, was introduced previously). Both of these expenditures were properly viewed as normal and necessary to get the bicycle into the condition and position to be resold. Interestingly, any amount later expended to transport the merchandise from the store to a buying customer is recorded as an expense rather than as an asset because that cost is incurred after the sale takes place. At that point, no further future value exists since the merchandise has already been sold.

Occasionally, costs arise where the “normal and necessary” standard may be difficult to apply. To illustrate, assume that the president of a store that sells antiques buys a 120-year-old table for resell purposes. When the table arrives at the store, another $300 must be spent to fix a scratch cut across its surface. Should this added cost be capitalized (added to the reported balance for inventory) or expensed? The answer to this question is not readily apparent and depends on ascertaining all relevant facts. Here are two possibilities.

Scenario one: The table was acquired by the president with the knowledge that the scratch already existed and needed to be fixed prior to offering the merchandise for sale. In that case, repair is a normal and necessary activity to put the table into condition necessary to be sold. The $300 is capitalized, recorded as an addition to the cost of the inventory.

Scenario two: The table was bought without the scratch but was damaged when first moved into the store through an act of employee carelessness. The table must be repaired but the scratch was neither normal nor necessary. This cost could have been avoided. The $300 is not capitalized but rather reported as a repair expense by the store.

As discussed in an earlier chapter, if the accountant cannot make a reasonable determination as to whether a particular cost qualifies as normal and necessary, the conservatism principle that underlies financial accounting requires the $300 to be reported as an expense. When in doubt, the alternative that makes reported figures look best is avoided so that decision makers are not encouraged to be overly optimistic about the company’s financial health and future prospects.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092919.html

Question: When inventory is acquired, some sellers are willing to accept a reduced amount to encourage fast payment—an offer that is called a cash discount (or a sales discount or purchases discount depending on whether the seller or the buyer is making the entry). Cash becomes available sooner so that the seller can quickly put it back into circulation to make more profits. In addition, the possibility that a receivable will become uncollectible is reduced if the balance due is not allowed to get too old. Tempting buyers to make quick payments to reduce their cost is viewed as a smart business practice by many sellers.

To illustrate, assume the invoice received by the sporting goods company (Rider) for the above bicycle indicates the proper $250 balance due but also includes the notation: 2/10, n/45. What message is being conveyed by the seller?
How do cash discounts impact the reporting of inventory?

Answer: Sellers—such as Builder Company in this example—can offer a wide variety of discount terms to encourage speedy payment. One such as 2/10, n/45 is generally read “two ten, net 45.” It informs the buyer that a

2 percent discount can be taken if the invoice is paid by the tenth day. Any net amount that remains unpaid (after merchandise returns or partial cash payments) is due on the forty-fifth day. Rider has the option to pay $245 for the bicycle within ten days of receiving the invoice by taking advantage of the $5 discount ($250 × 0.02). Or the sporting goods company can wait until the forty-fifth day but then is responsible for the entire $250.

Many companies automatically take advantage of these discounts as a matter of policy because of the high rate of interest earned. If Rider does not submit the money in ten days, it must pay an extra $5 in order to hold onto $245 for an additional thirty-five days. This delay equates to a 2.04 percent interest rate over just that short period of time ($5/$245 = 2.04 percent [rounded]). There are over ten thirty-five-day periods in a year. Paying the extra $5 is the equivalent of an annual interest rate in excess of 21 percent.

365 days per year/35 days holding the money = 10.43 time periods per year
2.04% (for 35 days) × 10.43 time periods equals a 21.28% rate for a year

That substantial rate of interest is avoided by making the early payment, a decision chosen by most companies unless they are experiencing serious cash flow difficulties.

Assuming that Rider avails itself of the discount offer, the capitalized cost of the inventory is reduced to $260.

Figure 8.2 Cost of Inventory Reduced by Cash Discount

Rider, Inc.
Subsidiary Ledger
Bicycle—Model XY-7

Invoice Price—Charged by Manufacturer	$250	
Discount Taken—2/10, n/45	(5)	
Transportation-in from Seller to Store	9	
Assembly	6	
Cost of Inventory (Bicycle)	$260	Quantity—1

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092883.html

Key Takeaways

Any discussion of the reporting of inventory begins with the calculation of cost, the amount spent to obtain the merchandise. Cost encompasses all payments that are considered normal and necessary to get the merchandise into the condition and possession to be sold. Any other expenditures are expensed as incurred. Cash discounts are often offered to buyers to encourage quick payment. Taking advantage of such discounts is usually a wise decision because they effectively save interest at a relatively high rate.

8.2 Perpetual and Periodic Inventory Systems

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Identify the attributes as well as both the advantages and disadvantages of a perpetual inventory system.
2. Identify the attributes as well as both the advantages and disadvantages of a periodic inventory system.
3. Provide journal entries for a variety of transactions involved in the purchase of inventory using both a perpetual and a periodic inventory system.

Question: In an earlier chapter, differences between a perpetual inventory system and a periodic inventory system were discussed briefly. A perpetual system—which frequently relies on bar coding and computer scanning—maintains an ongoing record of all items present. How is the recording of an inventory purchase carried out in a perpetual system?

Answer: When a **perpetual inventory system** is in use, all additions and reductions are monitored in the inventory T-account. Thus, theoretically, the balance found in that general ledger account at any point in time will be identical to the merchandise physically on hand. In actual practice, recording mistakes as well as losses such as theft and breakage create some (hopefully small) discrepancies. Consequently, even with a perpetual system, the inventory records must be reconciled occasionally with the items actually present to reestablish accuracy.

In a perpetual inventory system, the maintenance of a separate subsidiary ledger showing data about the individual items on hand is essential. On February 28, 2009, Best Buy reported inventory totaling $4.753 billion. However, the company also needs specific information as to the quantity, type, and location of all televisions, cameras, computers, and the like that make up this sum. That is the significance of a perpetual system; it provides the ability to keep track of the various types of merchandise. The total cost is available in the inventory T-account but detailed data about the composition (the quantity and frequently the cost) of merchandise physically held is maintained in a subsidiary ledger where an individual file can be available for each item.

Below are the journal entries that Rider Inc. (the sporting goods company) makes for its purchase of a bicycle to sell (Model XY-7) if a perpetual inventory system is utilized. A separate subsidiary ledger file (such as shown previously) is also established to record the quantity and cost of the specific items on hand.

The assumption is made here that the transportation and assembly charges are paid in cash. Furthermore, the actual purchase is initially on credit with payment made during the ten-day discount period. The bicycle is recorded at $250 and then reduced by $5 at the time the discount is taken. This approach is known as the "gross method of reporting discounts." As an alternative, companies can choose to anticipate taking the discount and simply make the initial entry for the $245 expected payment. This option is referred to as the “net method of reporting discounts.”

Figure 8.3 Rider Inc.—Journal Entries—Perpetual Inventory System[1]

Purchased Bicycle (Model XY-7)—Recorded Using Gross Method			
Inventory	250		(increase an asset—debit)
Accounts Payable		250	(increase a liability—credit)
Paid for Bicycle after Taking 2 Percent Discount			
Accounts Payable	250		(decrease a liability—debit)
Cash		245	(decrease an asset—credit)
Inventory		5	(decrease an asset—credit)
Payment Made to Transport Bicycle to Retail Store			
Inventory	9		(increase an asset—debit)
Cash		9	(decrease an asset—credit)
Payment Made to Assemble Bicycle for Display Purposes			
Inventory	6		(increase an asset—debit)
Cash		6	(decrease an asset—credit)

After posting these entries, the inventory T-account in the general ledger reports a net cost of $260 ($250 – $5 + $9 + $6) and the separate subsidiary ledger shown previously indicates that one Model XY-7 bicycle is on hand with a cost of $260.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092884.html

Question: In a periodic system, no attempt is made to keep an ongoing record of a company’s inventory. Instead, the quantity and cost of merchandise is only determined periodically as a preliminary step in preparing financial statements.
How is the actual recording of an inventory purchase carried out in a periodic system?

Answer: If a company uses a **periodic inventory system**, neither the cost nor the quantity of the specific inventory items on hand is monitored. These data are not viewed by company officials as worth the cost and effort required to gather it. However, transactions still take place and a record must be maintained of the costs incurred. This information is eventually used for financial reporting but also—more immediately—for control purposes.

Regardless of the recording system, companies want to avoid spending unnecessary amounts on inventory as well as tangential expenditures, such as transportation and assembly. If the accounting system indicates that a particular cost is growing too rapidly, alternatives can be investigated before the problem becomes serious. Periodic systems are designed to provide such information through the use of separate general ledger T-accounts for each cost incurred.

Assume that Rider uses a periodic inventory system. Its journal entries for the acquisition of the Model XY-7 bicycle are as follows. No subsidiary ledger is maintained. The overall cost of the inventory item is not readily available and the quantity (except by visual inspection) is unknown. At any point in time, company officials do have access to the amounts spent for each of the individual costs (such as transportation and assembly) for monitoring purposes.

Because these costs result from the acquisition of an asset that eventually becomes an expense when sold, they follow the same debit and credit rules as those accounts.

Figure 8.4 Rider Inc.—Journal Entries—Periodic Inventory System

Purchased Bicycle (Model XY-7)—Recorded Using Gross Method			
Purchases of Inventory	250		(increase an asset—debit)
Accounts Payable		250	(increase a liability—credit)
Paid for Bicycle after Taking 2 Percent Discount			
Accounts Payable	250		(decrease a liability—debit)
Cash		245	(decrease an asset—credit)
Purchases Discount		5	(decrease an asset—credit)
Payment Made to Transport Bicycle to Retail Stort			
Transportation-in	9		(increase an asset—debit)
Cash		9	(decrease an asset—credit)
Payment Made to Assemble Bicycle for Display Purposes			
Assembly of Inventory	6		(increase an asset—debit)
Cash		6	(decrease an asset—credit)

Note that the choice between using a perpetual and periodic system impacts the following:

- The information available to company officials on a daily basis
- The journal entries to be made
- The cost necessary to operate the accounting system (the technology required by a perpetual system is more expensive)

Regardless of the system, Rider holds one piece of inventory with a cost of $260. The decision as to whether to utilize a perpetual or periodic system is based on the added cost of the perpetual system and the difference in the information generated for use by company officials. The company's inventory is not physically affected by the method selected.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092920.html

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092921.html

Question: *Given the availability of sophisticated computers, do any companies still use periodic inventory systems? With bar coding and the advanced state of technology, is periodic inventory simply an antiquated system that is no longer found in actual practice?*

Answer: Obviously, in this computer age, perpetual inventory systems have come to dominate because they provide valuable information to company officials. However, some types of businesses will simply never change from the simplicity of a periodic system.

A beauty salon or barber shop, for example, where services are rendered but a small amount of inventory is kept on hand for occasional sales, would certainly not need to absorb the cost of a perpetual system. Visual inspection can alert the employees as to the quantity of inventory on hand.

Restaurants, sandwich shops, ice cream stores, and the like might well choose to use a periodic system because purchasing usually takes place at the establishment where quantities are easy to observe and manage. The information provided by a perpetual system does not necessarily provide additional benefit.

"Dollar stores," which have become particularly prevalent in recent years, sell large quantities of low-priced merchandise. Goods tend to be added to a store's inventory as they become available rather than based on any type of managed inventory strategy. Again, officials must decide whether keeping up with the inventory on hand will impact their decision making. If not, the cost of a perpetual system is unnecessary.

Perhaps, most importantly, some companies often use a hybrid system where the units on hand and sold are monitored with a perpetual system. However, to reduce cost, the dollar amounts are only determined using a periodic system at the end of the year to prepare financial statements. In that way, the company gains valuable information (the number of units on hand) at a reduced amount.

Key Takeaways

Perpetual inventory systems are designed to maintain updated figures for inventory as a whole as well as for individual items. Separate subsidiary ledger accounts show the balance for each type of inventory so that company officials can know the size, cost, and composition of the merchandise. A periodic system is cheaper to operate because no attempt is made to monitor inventory balances (in total or individually) until financial statements are to be prepared. A periodic system does allow a company to control costs by keeping track of the individual inventory costs as they are incurred.

[1]If the net method is applied by Rider Inc. the initial purchase entry is recorded as $245. Later, if the discount is not taken, the additional cost of $5 is recorded as a loss or an expense rather than as a capitalized cost of the inventory because it is not normal and necessary to pay the extra amount.

8.3 The Calculation of Cost of Goods Sold

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Explain the meaning of the FOB point in connection with an inventory purchase and its impact on the recording of the transaction.
2. Identify the time at which cost of goods sold is computed in a perpetual inventory system as well as the recording made at the time of sale.
3. Identify the time at which cost of goods sold is computed in a periodic inventory system as well as the recording made at the time of sale.
4. Provide the computation used in a periodic inventory system to derive cost of goods sold along with the adjusting entry necessary to enter the appropriate balances into the accounting system for each period.
5. Understand the necessity of taking a physical inventory count.

Question: Rider Inc. (the sporting goods company) buys a bicycle for resell purposes and records the transaction using either a perpetual or periodic system. When should an inventory purchase be recorded? Assume, for example, that Builder Company (the manufacturer of this bicycle) is located in Wisconsin, whereas the retail store operated by Rider is in Kentucky. Delivery takes several days at a minimum. The precise moment for recording the transaction is probably not critical except near the end of the year when the timing of journal entries can impact the balances to be included on the financial statements.

To illustrate, assume this bicycle is ordered by Rider Inc. on December 27 of Year One. It is shipped by Builder Company from Wisconsin on December 29 of Year One and arrives at the retail store on January 4 of Year Two. When Rider produces its financial statements for Year One, should the inventory cost and related payable be included even though the bicycle was not physically received until Year Two?

Answer: Documents prepared in connection with shipments made from a seller to a buyer are normally marked with an "FOB" point. FOB stands for "Free On Board" (a traditional maritime term that has gained a wider use over the years) and indicates when legal title to property is transferred. That is the moment that the bicycle is assumed to be conveyed from one party to the other. It signifies the appropriate date for recording.

In this illustration, if Builder Company specifies that the sale of this bicycle is made "**FOB shipping point**" and Rider Inc. agrees to this condition, the transaction occurs on December 29, Year One, when the bicycle leaves the seller. Consequently, both the asset and the liability appear on the December 31, Year One, balance sheet prepared by the buyer while Builder records sale revenue in Year One. However, if the contract states that the transaction is made "**FOB destination**," the seller maintains legal ownership until the bicycle arrives at the store on January

4, Year Two. Neither party records the transaction until that time. Near the end of a reporting period, account balances can clearly be altered by the FOB designation.

The FOB point is often important for two other reasons.

- The company that holds legal title to merchandise during the trip from seller to buyer normally incurs all transportation costs. If no other arrangements are negotiated, "FOB shipping point" means that Rider Inc. as the buyer pays shipping. "FOB destination" assigns this same cost to Builder, as the seller.
- Any losses or damages that occur in route affect the party holding legal title (again, unless other arrangements are specified in a contract). If shipment from Wisconsin to Kentucky was noted as FOB shipping point and the bicycle breaks as the result of an accident in Illinois, it is the buyer's inventory that was hurt. It is the seller's problem, though, if the shipment is marked as FOB destination. The legal owner bears the cost of damages that occur during the physical conveyance of property.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092922.html

Question: When a sale is made so that inventory is surrendered, the seller reports an expense that has previously been identified as "cost of goods sold" or "cost of sales." For example, Best Buy reported "cost of goods sold," for the year ended February 28, 2009, as $34.017 billion. When should cost of goods sold be determined?

To illustrate, assume that Rider Inc. begins the current year holding three Model XY-7 bicycles costing $260 each—$780 in total. During the period, another five units of this same model are acquired, again for $260 apiece or $1,300 in total[1]*.Eventually, a customer buys seven of these bicycles for her family and friends paying cash of $440 each or $3,080 in total. No further sales are made of this model. At the end of the period, a single bicycle remains (3 + 5 – 7). One is still in stock while seven have been sold. What is the proper method of recording the company's cost of goods sold?*

Answer: *Perpetual inventory system*. The acquisition and subsequent sale of inventory when a perpetual system is in use was demonstrated briefly in an earlier chapter. The accounting records maintain current balances so that officials are cognizant of (a) the amount of merchandise being held and (b) the cost of goods sold for the year to date. These figures are readily available in general ledger T-accounts. In addition, separate subsidiary ledger balances are usually established for the individual items in stock, showing the quantity on hand and its cost. When each sale is made, the applicable cost is reclassified from the inventory account on the balance sheet to cost of goods sold on the income statement. Simultaneously, the corresponding balance in the subsidiary ledger is lowered.

In this example, bicycles had been acquired by Rider Inc. and seven of them, costing $260 each (a total of $1,820), are sold to a customer for $440 apiece or $3,080. When a perpetual system is in use, two journal entries are prepared at the time of this transaction: one for the sale and a second to shift the cost of the inventory from asset to expense.

Figure 8.5 Journal Entries for Sale of Seven Model XY-7 Bicycles—Perpetual Inventory System

Cash	3,080		(increase an asset—debit)
Sales Revenue—Merchandise		3,080	(increase a revenue—credit)
Cost of Goods Sold	1,820		(increase an expense—debit)
Inventory		1,820	(decrease an asset—credit)

Removing $1,820 leaves an inventory balance of $260 ($780 + $1,300 – $1,820) representing the cost of the one remaining unit. The $1,260 difference between revenue and cost of goods sold for this sale ($3,080 minus $1,820) is the markup (also known as "**gross profit**" or "gross margin").

Periodic inventory system. In contrast, a periodic system monitors the various inventory expenditures but makes no attempt to keep up with the merchandise on hand or the cost of goods sold during the year. Although cheap to create and operate, the information available to company officials is extremely limited.

At the time the sale of seven bicycles takes place, the first journal entry shown above is still made to recognize the revenue. However, the second entry is omitted if a periodic system is in use. Cost of goods sold is neither calculated nor recorded when a sale occurs. Thus, the inventory balance remains unadjusted throughout the year. Eventually, whenever financial statements are prepared, the amount to be reported for the asset (inventory) must be determined along with the expense (cost of goods sold) for the entire period.

Because updated totals are not maintained, the only accounts found in the general ledger relating to inventory show balances of $780 (beginning balance) and $1,300 (purchases).

General Ledger Balances—Periodic Inventory System	
Inventory (beginning balance remains unadjusted during the period):	3 units at $260 each or $780
Purchases (total inventory costs incurred during the period; for this example, the balance here includes the invoice price, sales discount, transportation-in, assembly, and the like although they would have been recorded separately):	5 units at $260 each or $1,300

Based on this information, total inventory available for to be sold by Rider Inc. during this period is eight units costing $2,080 ($780 plus $1,300).

When using a periodic system, cost of goods sold is computed as a prerequisite to preparing financial statements. Inventory on hand is counted (a process known as a "**physical inventory**") and all units that are no longer present are assumed to have been sold. The amount of missing inventory is determined in this process. The figure is then reported as the company's cost of goods sold for the period. Because complete inventory records are not available, any units that are lost, stolen, or broken cannot be separately derived. All merchandise that is no longer on hand is included within cost of goods sold.

In this example, a physical inventory count will be taken by the employees of Rider Inc. on or near the last day of the year so that financial statements can be produced. Because eight bicycles (Model XY-7) were available during the year but seven have now been sold, one unit—costing $260—remains (if no accident or theft has occurred). This amount is the inventory figure that appears in the asset section of the balance sheet.

Cost of goods sold is then computed by the following formula.

Figure 8.6 Computation of Cost of Goods Sold in a Periodic System[2]

Beginning Inventory	$780
Purchases for the Period	1,300
Goods Available for Sale	2,080
Ending Inventory (one unit at a cost of $260)	(260)
Cost of Goods Sold	$1,820

In a periodic system, three costs are used to arrive at the amount reported as a company's cost of goods sold. It is important to understand how each of these figures is derived.

- *Beginning inventory* was determined by a physical inventory taken at the end of the previous year. The count was followed by a calculation of the cost of those units still present. This balance was recorded in the inventory account at that time and has remained unchanged until the end of the current year. A periodic system only updates the general ledger when financial statements are prepared.
- The *purchases* figure has been maintained throughout the year in the general ledger to provide a record of the amounts expended for all normal and necessary costs (invoice price, discounts, transportation-in, assembly costs, and the like) needed to get the inventory items into position and condition to be sold.
- *Ending inventory* is found by making a new physical count at the end of the current period. The number of units on hand is determined (one, in this case) and then the cost of those items ($260) is used to arrive at the proper inventory total.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092885.html

Question: In a perpetual inventory system, cost of goods sold is determined at the time of each sale. Figures retained in a subsidiary ledger provide the cost of the specific item being surrendered so that an immediate reclassification from asset to expense can be made.

With a periodic system, cost of goods sold is not calculated until financial statements are prepared. The beginning inventory balance (the ending amount from the previous year) is combined with the total acquisition costs incurred this period. Merchandise still on hand is counted and its cost is determined. All missing inventory is assumed to reflect the cost of goods sold. When a periodic inventory system is in use, how are both the ending inventory *and cost of goods sold for the year physically entered into the accounting records? These figures have not been recorded on an ongoing basis so the general ledger must be updated to agree with the reported balances.*

Answer: In the bicycle example, opening inventory for the period was comprised of three items costing $780. Another five were then bought for $1,300. The total cost of these eight units is $2,080. Because the financial impact of lost or broken units cannot be ascertained in a periodic system, the entire $2,080 is assigned to either ending inventory (one unit at a cost of $260) or cost of goods sold ($780 + $1,300 – $260 or $1,820). There is no other account in which to record inventory costs in a periodic system. The goods are assumed to either be on hand or have been sold.

For a periodic inventory system, a year-end adjusting entry is set up so that these computed amounts are reflected as the final account balances.

Figure 8.7 Adjusting Entry—Recording Inventory and Cost of Goods Sold as Determined in Periodic Inventory System[3]

Inventory (ending—one unit at $260)	260		(increase an asset—debit)
Cost of Goods Sold (seven units missing at $260 each)	1,820		(increase an expense—debit)
Purchases of Inventory (four units at $260 each)		1,300	(decrease an asset type account—credit)
Inventory (beginning—three units at $260 each)		780	(decrease an asset—credit)

Note that the reported costs on the financial statements ($260 for ending inventory and $1,820 for cost of goods sold) are identical under both perpetual and periodic systems. However, as will be demonstrated in the next chapter, this agreement does not always exist when inventory items are acquired during the year at differing costs.

Key Takeaways

The legal conveyance of inventory from seller to buyer establishes the timing for recording and is based on the FOB point specified. This designation also identifies the party responsible for transportation costs and items damaged while in transit. In contrast, the recording of cost of goods sold depends on the inventory system used. For a perpetual system, the reclassification of an item from inventory to expense occurs at the time of each sale. A periodic system makes no attempt to monitor inventory totals; thus, cost of goods sold is unknown until the preparation of financial statements. The expense is found by adding the beginning inventory to the purchase costs for the period and then subtracting ending inventory. A year-end adjusting entry then updates the various general ledger accounts.

[1]In this illustration, each bicycle in the company's inventory has the same cost: $260. At this introductory stage, utilizing a single cost for all items eliminates a significant theoretical problem concerning the flow of costs, one that will be discussed in detail in a subsequent chapter.

[2]The Purchases figure here could have also been shown by displaying the various cost components, such as

the invoice price, purchases discount, transportation-in, and assembly. That breakdown is important for internal decision making and control but probably of less interest to external parties.

[3]As mentioned previously, if separate T-account balances are established for cost components such as transportation-in, assembly costs, and the like, they must be included in this entry rather than just a single Purchases figure.

8.4 Reporting Inventory at the Lower-of-Cost-or-Market

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Explain the need for reporting inventory at the lower-of-cost-or-market.
2. Differentiate between a problem caused by a drop in the purchase value of inventory and one coming from the sales value of the merchandise.
3. Understand the difference in applying the lower-of-cost-or-market rule under U.S. GAAP and IFRS.

Question: In the example of Rider Inc., Model XY-7 bicycles have been bought and sold and one unit remains in stock at the end of the year. The cost of this model has held steady at $260. However, its market value is likely to differ from that figure.

Assume that, because of the sales made during the period, company officials believe that a buyer will eventually be found to pay $440 for this last bicycle. Is inventory always reported on a balance sheet at historical cost or is market (or fair) value ever taken into consideration? Should this bicycle be shown as an asset at $260, $440, or some other pertinent figure?

Answer: Under normal conditions, market value is rarely relevant in the reporting of inventory. For Rider Inc. this bicycle will most likely appear as an asset at its cost of $260 until sold. Value is such a subjective figure that it is usually ignored in reporting inventory. The company has no reliable proof that the bicycle will bring in $440 until a sale actually occurs. The conservative nature of accounting resists the temptation to inflate reported inventory figures based purely on the anticipation of a profitable transaction at some point in the future.

An exception to this rule becomes relevant if the value of inventory falls below cost. Once again, the conservatism inherent in financial accounting is easily seen. If market value remains greater than cost, no change is made in the reported balance until a sale occurs. In contrast, if the value drops so that inventory is worth less than cost, a loss is recognized immediately. Accountants often say that losses are anticipated but gains are not. As a note to the June 24, 2009, financial statements for Winn-Dixie Stores states, "Merchandise inventories are stated at the **lower-of-cost-or-market**" (emphasis added). Whenever inventory appears to have lost value for any reason, the accountant compares the cost of the item to its market value and the lower figure then appears on the balance sheet.

Question: *When applying the lower-of-cost-or-market approach to inventory, how does the owner of the merchandise ascertain market value?*

Answer: The practical problem in applying this rule arises from the difficulty in ascertaining an appropriate market value. There are several plausible ways to view the worth of any asset. For inventory, there is both a “purchase value” (replacement cost—the amount needed to acquire the same item again at the present time) and a “sales value” (net realizable value—the amount of cash expected from an eventual sale). When preparing financial statements, if either of these amounts is impaired, recognition of a loss is likely. Thus, the accountant must watch both values and be alert to any potential problems.

Purchase Value. In some cases, often because of bad timing, a company finds that it has paid an excessive amount for inventory. Usually as the result of an increase in supply or a decrease in demand, replacement cost drops after an item is acquired. To illustrate, assume that Builder Company—the manufacturer of bicycle Model XY-7—has trouble selling the expected quantity of this style to retail stores because the design is not viewed as attractive. Near the end of the year, Builder reduces the wholesale price offered for this model by $50 in hopes of stimulating sales. Rider Inc. bought a number of these bicycles earlier at a total cost of $260 each but now, before the last unit is sold, could obtain an identical product for only $210. The bicycle held in Rider’s inventory is literally worth less than what the company paid for it. The purchase value, as demonstrated by replacement cost, has fallen to a figure lower than its historical cost.

When replacement cost for inventory drops below the amount paid, the lower (more conservative) figure is reported on the balance sheet and the related loss is recognized on the income statement. In applying **lower-of-cost-or-market**, the remaining bicycle is now reported by Rider Inc. at its purchase value. A loss of $50 reflects the reduction in the reported inventory account from $260 to $210.

Sales value. Inventory also has a sales value that can, frequently, be independent of replacement cost. The sales value of an item can fall for any number of reasons. For example, technological innovation will almost automatically reduce the amount that can be charged for earlier models. This phenomenon can be seen whenever a new digital camera or cell phone is introduced to the market. Older items still in stock often must be discounted significantly to attract buyers. Similarly, changes in fashions and fads can hurt the sales value of certain types of inventory. Swim suits usually are offered at reduced prices in August and September as the summer season draws to a close. Damage can also impact an owner’s ability to recoup the cost of inventory. Advertised sales tempt buyers to stores by offering scratched and dented products, such as microwaves and refrigerators, at especially low prices.

For accounting purposes, the sales value of inventory is normally defined as its estimated net realizable value. As discussed in the previous chapter, this figure is the amount of cash expected to be derived from an asset. For inventory, net realizable value is the anticipated sales price less any cost required so that the sale will occur. For example, the net realizable value of an older model digital camera might be the expected amount a customer will pay after money is spent to advertise the product. The net realizable value for a scratched refrigerator is likely to be the anticipated price of the item less the cost of any repairs that must be made prior to the sale.

As with purchase value, if the sales value of an inventory item falls below its historical cost, the lower figure is reported along with a loss to mirror the impact of the asset reduction.

Question: Inventory records are maintained at the historical cost of each item. For reporting purposes, this figure is utilized unless the market value is lower. A reduction in value can result because of a drop in replacement cost (a purchase value) or in net realizable value (a sales value). How is the comparison of cost and market value actually made when inventory is reported?

Assume that Rider Inc. is currently preparing financial statements and holds two bicycles in ending inventory. Model XY-7 cost the company $260 while Model AB-9 cost $380. As mentioned, Model XY-7 now has a replacement cost of only $210. Because of market conditions, the exact sales value is uncertain. The other unit, Model AB-9, has been damaged and can only be sold for $400 after $50 is spent for necessary repairs. What should Rider report for its asset inventory?

Answer: As a preliminary step in preparing financial statements, a comparison of the cost and market value of the inventory is made. For Rider, both reported cost amounts here must be reduced and the inventory account shown as $560[1]. However, the market value used for the first item is its purchase value (replacement cost of $210) whereas the market value for the second is the item's sales value of $350 (net realizable value of $400 minus $50). A problem with either value can lead to the reduction of the reported asset causing the recognition of a loss.

Figure 8.8 Recognition of a Loss on Impaired Inventory Value

Model	Cost	Impaired Market Value	Lower of Cost or Market Value
XY-7	$260	$210 (replacement cost)	$210
AB-9	380	350 (net realizable value)	350
Totals	$640		$560

Rider Inc. reports its inventory at the conservative $560 amount on its balance sheet with an $80 loss ($640 – $560) appearing in the income statement for this period.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092886.html

Talking with an Independent Auditor about International Financial Reporting Standards (Continued)

Following is a continuation of our interview with Robert A. Vallejo, partner with the accounting firm PricewaterhouseCoopers.

Question: According to U.S. GAAP, in applying lower-of-cost-or-market to inventory, the determination of market value can be either net realizable value or replacement cost depending on whether a sales value or a purchases value is impaired. This process has been used in the United States for decades. How does International Financial Reporting Standards (IFRS) handle this issue? When a company begins to report its financial statements based on IFRS, how will the comparison of cost to market be made for inventory balances?

Rob Vallejo: International Accounting Standards 2, Inventories (IAS 2) states that inventories should be measured at the lower of cost and net realizable value. Net realizable value is defined as the anticipated sales price of the item (in the ordinary course of business) reduced by the estimated costs to complete the item and any estimated costs needed to make the sale. Replacement cost is not taken into consideration. In practice, because replacement cost is not often an issue for U.S. companies, the methodology commonly used for valuing inventory under U.S. GAAP will continue to be utilized to comply with IFRS. Therefore, I do not expect any significant differences in this area of financial reporting (with the exception of some very industry specific circumstances) when the switch to IFRS is made. However, IFRS does allow reversals of previous write-downs if appropriate.

Key Takeaways

Inventory is traditionally reported on a company's balance sheet at its historical cost. However, reductions can be made based on applying the conservative lower-of-cost-or-market approach. In some cases, purchase value is in question if the item's replacement cost has dropped since the date of acquisition. For other inventory items, net realizable value (expected sales price less any costs necessary to sale) may become less than cost because of changes in fads or technology or possibly as a result of damage. Consequently, the reported inventory figure should be reduced if either of these market values is below cost.

[1]In applying the lower-of-cost-or-market to inventory, the comparison can be made on an item-by-item basis. For example, XY-7 can be valued based on cost and market value and then, separately, a similar determination can be made for AB-9. A company can also group its inventory (all bicycles, for example, might comprise one group that is separate from all motorcycles) and report the lower amount determined for each of these groups. A third possibility is to sum the cost of all inventory and make a single comparison of that figure to the total of all market values. U.S. GAAP does not specify a mechanical approach to use in applying lower-of-cost-or-market value.

8.5 Determining Inventory on Hand

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Understand the necessity of taking a physical inventory even in a perpetual inventory system.
2. Estimate the amount of inventory on hand using historic gross profit percentages and identify the situations when this computation might be necessary.

Question: In a periodic inventory system, a physical count is always taken at or very near the end of the fiscal year. This procedure is essential. There is no alternative method for determining the final inventory figure and, hence, the cost of goods sold for the period. When a company uses a perpetual system, is a count of the goods on hand still needed since both the current inventory balance and cost of goods sold are maintained and available in the accounting records?

Answer: A physical inventory is necessary even if a company has invested the effort and cost to install a perpetual system. Goods can be lost, broken, or stolen. Errors can occur in the record keeping. Thus, a count is taken on a regular basis simply to ensure that the subsidiary and general ledger balances are kept in alignment with the actual items held. Unless differences become material, this physical inventory can take place at a convenient time rather than at the end of the year. For example, assume that a company sells snow ski apparel. If a perpetual system is in use, the merchandise could be inspected and counted by employees in May when quantities are low and damaged goods easier to spot.

An adjustment is necessary when the count does not agree with the perpetual inventory balance. To illustrate, assume that company records indicate that sixty-five ski jackets are currently in stock costing $70 apiece. The physical inventory finds that only sixty-three items are actually on hand. The inventory account must be reduced (credited) by $140 to mirror the shortfall (two missing units at $70 each).

The other half of the adjusting entry depends on the perceived cause of the shortage. For example, officials might have reason to believe that errors took place in the accounting process during the period. When merchandise is bought and sold, recording miscues do occur. Possibly two ski jackets were sold on a busy afternoon. The clerk got distracted and the cost of this merchandise was never reclassified to expense. This type of mistake means that the cost of goods sold figure is too low. The balance reported for these two jackets needs to be moved to the expense account to rectify the mistake.

Figure 8.9 Adjusting Entry—To Bring Perpetual Inventory Records in Line with Physical Count, a Recording Error Is Assumed

Cost of Goods Sold	140		(increase an expense—debit)
Inventory (to reduce inventory for two jackets costing $70 each)		140	(decrease an asset—credit)

Conversely, if differences between actual and recorded inventory amounts occur because of damage, loss, or theft, the reported balance for cost of goods sold should not bear the cost of these items. They were not sold. Instead, a loss occurred.

If the assumption is made here that the two missing jackets were not sold but have been lost or stolen, the following alternative adjustment is appropriate.

Figure 8.10 Adjusting Entry—To Bring Perpetual Inventory Records in Line with Physical Count, Theft or Loss Is Assumed

Loss on Inventory Shortage	140		(increase an expense—debit)
Inventory (to reduce inventory for two jackets costing $70 each)		140	(decrease an asset—credit)

In practice, when an inventory count is made and the results differ from the amount of recorded merchandise, the exact cause is often impossible to identify. Whether a loss is reported or a change is made in reporting cost of goods sold, the impact on net income is the same. The construction of the adjustment is often at the discretion of company officials. Normally, consistent application from year to year is the major objective.

Question: A periodic system is cheap and easy to operate. It does, though, present some practical problems. Assume that a company experiences a fire, flood, or other disaster and is attempting to gather evidence—for insurance or tax purposes—as to the amount of merchandise that was destroyed. How does the company support its claim? Or assume a company wants to produce interim financial statements for a single month or quarter (rather than a full year) without going to the cost and trouble of taking a complete physical inventory count. If the information is needed, how can a reasonable approximation of the inventory on hand be derived when a periodic system is in use?

Answer: One entire branch of accounting—known as "**forensic accounting**"—specializes in investigations where information is limited or not available (or has even been purposely altered to be misleading). For example, assume that a hurricane floods a retail clothing store in Charleston, South Carolina. Only a portion of the merchandise costing $80,000 is salvaged[1]. In trying to determine the resulting loss, the amount of inventory in the building prior to the storm needs to be calculated. A forensic accountant might be hired, by either the owner of the store or the insurance company involved, to produce a reasonable estimate of the merchandise on hand at the time. Obviously, if the company had used a perpetual rather than a periodic system, the need to hire the services of an accounting expert would be less likely unless fraud was suspected.

In some cases, arriving at a probable inventory balance is not extremely complicated even if periodic inventory procedures are utilized. When historical trends can be determined with assurance, a valid estimation of the goods on hand is possible at any point in time without the benefit of perpetual records. For the Charleston store, assume that the general ledger is located after the disaster and the T-account balances provide the following information resulting from the periodic system in use:

Figure 8.11 Estimating Inventory—General Ledger Balances

Inventory available for sale:	
Inventory, beginning of year	$165,000
Purchases of inventory for current period	378,000
Cash discounts on purchases	(6,000)
Transportation-in	34,000
Cost to date	$571,000
Sales	$480,000

If no sales had taken place, the inventory on hand would have cost $571,000 as shown by the ledger accounts. Sales did occur prior to the hurricane and a significant amount of merchandise was removed by the customers. However, the $480,000 balance shown in the sales T-account does not reflect the cost of the inventory items that were surrendered. It is a retail amount, the summation of the price charged for all the merchandise sold during the year to date.

To determine the cost of inventory held at the time of the catastrophe, cost of goods sold for the current year has to be approximated and then removed from the $571,000 total. Many companies use a fairly standard markup percentage in setting retail prices. By looking at previously reported balances, the accountant is often able to make a reasonable determination of that markup. For example, assume that in the preceding year, this company reported sales revenue of $500,000 along with cost of goods sold of $300,000 and, hence, gross profit of $200,000. In this earlier period, cost of goods sold was 60 percent of sales revenue ($300,000/$500,000) while gross profit was 40 percent ($200,000/$500,000).

If available evidence does not indicate any significant changes this year in the method used to set retail prices, the accountant can assume that cost of goods sold during the period prior to the storm was about $288,000 ($480,000 sales revenue × 60 percent). Because the cost of all available inventory was $571,000, approximately $283,000 of those goods were still in stock when the hurricane hit Charleston ($571,000 total cost less $288,000 estimated cost of goods sold). This residual figure can then serve as the basis for the insurance or tax claim. Only goods costing $80,000 were saved. Thus, the estimated loss was $203,000 ($283,000 less $80,000).

The biggest obstacle in this type calculation is the validity of the cost and markup percentages. Many companies offer an eclectic variety of products, each with its own specific gross profit. Other companies change their markups frequently based on market conditions. In such cases, determining a reliable percentage can be difficult and the accuracy of the resulting estimation is more questionable.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092901.html

Key Takeaways

Although perpetual inventory systems are designed to maintain current account balances, a physical count is still required periodically to update the records for errors, theft, and the like. In addition, knowledge of the amount of inventory on hand is sometimes needed in a periodic system even if complete records are not available. If a loss has occurred due to some type of disaster or if interim financial statements are to be prepared, the inventory balance can be estimated. This computation is based on determining the gross profit percentage using historical data. Cost of goods sold for the period is estimated and then removed from the total inventory available for sale.

Talking with a Real Investing Pro (Continued)

Following is a continuation of our interview with Kevin G. Burns.

Question: Gross profit is the sales revenue generated by a company less cost of goods sold. In other words, it is the markup that a company is able to earn from the sale of its inventory. Goods are bought for a price and then sold at a higher value. In analyzing companies, gross profit is often stated as a percentage. A company's gross profit, for example, might be 37 percent of its sales. When you study a company, how much attention do you pay to changes in gross profit from year to year or differences that exist between one company and another?

Kevin Burns: Actually year to year differences only interest me if there is a significant change. If a company's gross profit margin increases significantly from one year to the next, my radar is activated. I want to know exactly why that happened. Is it temporary or something significant? If gross profit is that volatile, it could also easily go the other direction in the future. I prefer steady as she goes. Predictability and transparency are very important to me. As for gross profit margins between one company and another, the only way that is significant to me is if they are in the same industry and then only if there are big differences. Most companies in mature industries have similar margins and large differences, again, would make me very suspicious.

Video Clip

" href="http://app.wistia.com/embed/medias/d4c715b362" class="replaced-iframe">(click to see video)

Unnamed Author talks about the five most important points in Chapter 8 "How Does a Company Gather Information about Its Inventory?".

[1]For a full description of forensic accounting, see Frank J. Grippo and J. W. (Ted) Ibex, "Introduction to Forensic Accounting," *The National Public Accountant*, June 2003.

8.6 End-of-Chapter Exercises

Questions

1. Define "cost" as it relates to determining the value of inventory.
2. What is a cash discount?
3. Explain what the term "3/10 n/30" means.
4. How do cash discounts impact the reported value of inventory?
5. What is a perpetual inventory system?
6. What is a periodic inventory system?
7. Name one advantage of a perpetual inventory system over a periodic inventory system.
8. Name one advantage of a periodic inventory system over a perpetual inventory system.
9. Explain the concept of "free on board."
10. When does ownership transfer if documents specify "FOB shipping point"?
11. When does ownership transfer if documents specify "FOB destination"?
12. What two journal entries are made when inventory is sold under a perpetual system?
13. Give the formula for computing cost of goods sold under a periodic system.
14. Explain the concept of "lower-of-cost-or-market."
15. Why would a company that uses a perpetual inventory system still perform a physical inventory count?

True or False

1. ____ If the market value of a company's inventory increases, the company should record a gain.
2. ____ A company should include costs of transporting an item to its store when determining the cost of the item.
3. ____ A company that uses a perpetual inventory system should still perform a physical inventory count.
4. ____ In a perpetual system, but not a periodic system, cost of goods sold is determined and recorded at the time of sale.
5. ____ If inventory is shipped FOB shipping point, the buyer takes title as soon as the inventory leaves the seller's warehouse.
6. ____ Companies infrequently take advantage of purchase discounts because they amount to so little savings.
7. ____ Periodic inventory systems are, in general, less expensive to operate than perpetual systems.
8. ____ In a periodic system, cost of goods sold is the difference between what a company has available for sale (beginning inventory and purchases) and what they didn't sell (ending inventory).
9. ____ Companies only follow the "lower-of-cost-or-market" guideline if they use a periodic inventory

system.

10. ____ The “purchases” account is not used in a perpetual inventory system.

Multiple Choice

1. On February 13, North Carolina Furniture purchases three sofas from a manufacturer for $300 each. The terms of the sale are 2/10 n/45. North Carolina Furniture pays the invoice on February 21. How much did they pay?
    1. $300
    2. $900
    3. $882
    4. $810
2. Crayson Inc. started the year with $490,000 in beginning inventory. During the year, Crayson purchased an additional $1,060,000 in inventory. At the end of the year, Crayson employees performed a physical count and determined that ending inventory amounted to $450,000. What was Crayson’s cost of goods sold for the year?
    1. $1,100,000
    2. $1,020,000
    3. $120,000
    4. $1,060,000
3. Raceway Corporation manufactures miniature cars and racetracks for collectors and enthusiasts. Raceway placed an order for supplies from Delta Inc. on December 1. The sales staff at Delta informed Raceway that the supplies would not be available to ship out until December 22 and Raceway accepted this arrangement. The supplies actually shipped, FOB shipping point, on December 26 and arrived at Raceway’s receiving dock on January 2. On which date should Raceway include the supplies in its inventory?
    1. December 1
    2. December 22
    3. December 26
    4. January 2
4. Which of the following concerning the “lower-of-cost-or-market” rule is **not** true?
    1. If the replacement cost of an inventory item falls below its historical cost, the value of the item should be written down.
    2. If the market value of an item exceeds its historical cost, it should be written up and a gain should be recorded.
    3. It is possible for an item’s net realizable value to fall below its historical cost.
    4. Lower-of-cost-or-market is an example of the conservatism principle.
5. Romulus Company sells maps. At the end of the year, Romulus’s inventory account indicated that it had

2,900 maps of Italy on hand that had originally cost $30 each. An inventory count showed that only 2,875 were actually in ending inventory. What journal entry should Romulus make if management believes the discrepancy is due to errors in the accounting process?

1. Figure 8.12

Cost of Goods Sold	750	
Loss on Inventory Shortage		750

2. Figure 8.13

Loss on Inventory Shortage	30	
Inventory		30

3. Figure 8.14

Loss on Inventory Shortage	750	
Inventory		750

4. Figure 8.15

Cost of Goods Sold	750	
Inventory		750

6. Real South Products has $400,000 worth of inventory on hand on January 1. Between January and March 13, Real South purchased an additional $190,000 in inventory and sales of $530,000 had been made. On March 13, Real South's warehouse flooded and all but $15,000 worth of inventory was ruined. Real South has an average gross profit percentage of 25 percent. What would be the approximate value of the inventory destroyed in the flood?

    1. $240,000
    2. $275,000
    3. $207,500
    4. $177,500

Problems

1. ConnecTech bought 400 computers in December 20X2 for $300 each. It paid $260 to have them delivered to its store. In January 20X3, ConnecTech sold 220 of the computers for $550 each. ConnecTech uses a perpetual inventory system.

1. Prepare the journal entry(ies) to record ConnecTech's purchase of the computers.
2. Determine the balance in ConnecTech's ending inventory on December 31, 20X2.
3. Prepare the journal entry(ies) to record the sale of the computers.
4. Determine the balance in ConnecTech's ending inventory on January 31, 20X3.

2. Montez Muffins and More is a bakery located in New York. Montez purchases a great deal of flour in bulk from a wholesaler. The wholesaler offers purchase discounts for fast payment. Montez purchased 600 pounds of flour for $100 on May 1, under terms 2/10 n/30. Determine the amount Montez should pay under the following scenarios:
   1. Montez pays the full balance on May 25.
   2. Montez pays the full balance on May 10.
   3. Montez pays half the balance on May 10 and half on May 25.
3. Racers ATVs sells many makes and models of all terrain vehicles. Racers uses a periodic inventory system. On January 1, Racers had a beginning inventory of AXVs costing $28,600. On January 14, Racers received a shipment of Model AXVs with a purchase price of $14,700 and transportation costs of $400. On May 19, Racers received a second shipment of AXVs with a purchase price of $16,900 and transportation costs of $450. On November 1, Racers received its before-Christmas shipment of AXVs with a purchase price of $27,800 and transportation costs of $750.
   1. Make the necessary journal entries for January 14, May 19, and November 1 to show the purchase of the inventory.
   2. Assume that a physical inventory count on December 31 showed an ending inventory of AXVs of $25,800. Determine cost of goods sold for the AXV model for the year.
   3. If sales of AXVs were $96,700, what profit did Racers make on this model?
   4. Racers is considering replacing its periodic inventory system with a perpetual one. Write a memo to Racers management giving the pros and cons of this switch.
4. Magic Carpets Inc. sells a full line of area rugs, from top quality to bargain basement. Economic conditions have hit the textile industry, and Magic Carpets accountant is concerned that its rug inventory may not worth the amount Magic paid for it. Information about three lines of rugs is found below:

   Figure 8.16

	Cost	**Replacement Cost**	**Sales Price**	**Cost to Sell**	**Number in inventory**
High Flyers	$230	$240	$350	$40	80
Midflight	150	120	220	25	125
Under the Radar	100	100	110	20	165

   1. Determine market value for each type of rug.
   2. Determine lower-of-cost-or-market for each type of rug.
   3. Determine if Magic Carpets has suffered a loss of value on its inventory, and if so, what the amount of loss is.
5. Costello Corporation uses a perpetual inventory system. At the end of the year, the inventory balance

reported by its system is $45,270. Costello performs an inventory count and determines that the actual ending inventory is $39,780.

1. Discuss why a company that uses a perpetual inventory system would perform a physical inventory count.
2. Why might the ending balance in inventory differ between the perpetual inventory system and physical inventory count?
3. Assume that Costello determines that the difference is due to a part of its inventory being damaged when a warehouse worker backed into a shelf with his forklift. What journal entry should Costello make?
4. Assume that Costello believes the difference is due to errors made by its accounting staff. The staff failed to transfer inventory to cost of goods sold when sales were made. Record the journal entry Costello should make in this case.

6. Fabulous Fay’s is a boutique clothing store in San Diego. Fay’s uses a perpetual inventory system. In March, Fay’s purchased a type of swimwear designed to be slimming to the wearer. It purchased twenty suits of varying sizes for $40 each and priced them at $120 each. They sold out almost immediately, so Fay purchased forty more suits in April for $40 each and sold thirty-eight of them for $130 each. Again in July, Fay made one more purchase of twenty suits at $40 each and sold fifteen of them for $130 each. Fay decided not to put the rest of her inventory on sale at the end of the summer, but to hold onto it until cruise season started the following winter. She believed she could sell the rest then without having to mark them down.

    1. Make the journal entries for the purchases Fay made.
    2. Make the journal entries for the sales Fay made.
    3. Determine the balance in ending inventory on December 31.
    4. Fay performed a physical count on December 31 and determined that three of the swimsuits had been severely damaged due to a leaky pipe. Make the journal entry to show the loss of this inventory.

7. Nakatobi Company has a warehouse in Fargo, ND. The company utilizes a periodic inventory system. At the beginning of the year, the warehouse contained $369,000 worth of inventory. During the first quarter, Nakatobi purchased another $218,000 worth of inventory and made sales of $450,000. On April 1, a flood hit Fargo and destroyed half of the inventory housed in the warehouse. Nakatobi needs to estimate the value of the inventory for insurance purposes. The only additional information Nakatobi has is that typically its cost of goods sold is 55 percent of sales.

    1. Determine the value of the inventory on March 31, before the flood hit.
    2. Determine Nakatobi’s loss on April 1.

Comprehensive Problem

This problem will carry through several chapters, building in difficulty. It allows students to continuously practice skills and knowledge learned in previous chapters.

In Chapter 7 “In a Set of Financial Statements, What Information Is Conveyed about Receivables?”, you prepared Webworks statements for July. They are included here as a starting point for August.

Here are Webworks financial statements as of July 31.

Figure 8.17

Webworks
Income Statement
As of July 31

Revenue	$2,300
Expenses	(1,295)
Earning before Tax	1,005
Tax Expense	(300)
Net Income	$705

Figure 8.18

Webworks
Stmt. Of Retained Earnings
As of July 31

Retained Earnings, July 1	$470
Net Income	705
Retained Earnings, July 31	$1,175

Figure 8.19

Webworks
Balance Sheet
July 31

Assets		**Liabilities**	
Current		**Current**	
Cash	$5,720	Accounts Payable	$240
Accounts Receivable	1,050	Salaries Payable	200
Less Allowance for Doubtful Accounts	(105)	Unearned Revenue	500
		Total Current Liabilities	$940
Net Accounts Receivable	945		
Supplies Inventory	50		
Prepaid Rent	400		
Total Current Assets	$7,115		
Noncurrent		**Noncurrent**	
Equipment	$7,000	Notes Payable	$10,000
		Owners' Equity	
		Capital Stock	$2,000
		Retained Earnings	1,175
		Total Owners' Equity	$3,175
Total Assets	$14,115	Total Liabilities & Owners' Equity	$14,115

The following events occur during August:

a. Webworks decides to begin selling a limited selection of inventory items related to its business. During August, Webworks purchases specialty keyboards for $4,900 on account and flash drives for $3,200 on account with the hopes of selling them to its Web site customers or others who might be interested. Due to the limited amount of inventory, Webworks will use a periodic system. Record these purchases.

b. Webworks purchases supplies worth $100 on account.

c. Webworks starts and completes six more Web sites and bills clients for $2,700.

d. Recall that in July, Webworks received $500 in advance to design two Web sites. Webworks completes these sites during August.

e. Webworks collects $2,400 in accounts receivable.

f. Webworks pays Nancy $600 for her work during the first three weeks of August.

g. In June, Webworks designed a site for Pauline Smith and billed her. Unfortunately, before she could finish paying the bill, Ms. Smith's business folded. It is unlikely Webworks will collect anything. Record the entry to write off the $100 remaining receivable from Ms. Smith.

h. Webworks sells keyboards for $4,500 and flash drives for $3,000 cash.

i. Webworks pays off its salaries payable from July.

j. Webworks pays off $6,000 of its accounts payable.

k. Webworks receives $100 in advance to work on a Web site for a local dentist. Work will not begin on the Web site until September.

l. Webworks pays Leon salary of $2,000.

m. Webworks pays taxes of $475 in cash.

Required:

A. Prepare journal entries for the above events.

B. Post the journal entries to T-accounts.

C. Prepare an unadjusted trial balance for Webworks for August.

D. Prepare adjusting entries for the following and post them to your T-accounts.

n. Webworks owes Nancy $250 for her work during the last week of August.

o. Leon’s parents let him know that Webworks owes $250 toward the electricity bill. Webworks will pay them in September.

p. Webworks determines that it has $60 worth of supplies remaining at the end of August.

q. Prepaid rent should be adjusted for August’s portion.

r. Webworks is continuing to accrue bad debts at 10 percent of accounts receivable.

s. Webworks performs a count of ending inventory and determines that $1,900 in keyboards and $1,100 in flash drives remain. Record cost of goods sold.

E. Prepare an adjusted trial balance.

F. Prepare financial statements for August.

Chapter 9: Why Does a Company Need a Cost Flow Assumption in Reporting Inventory?

Video Clip

(click to see video)

Joe introduces Chapter 9 "Why Does a Company Need a Cost Flow Assumption in Reporting Inventory?" and speaks about the course in general.

9.1 The Necessity of Adopting a Cost Flow Assumption

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Understand the reason that accounting rules are often standardized so that all companies report many events in the same manner.
2. Know that the selection of a particular cost flow assumption is necessary when inventory is sold.
3. Apply the following cost flow assumptions to determine reported balances for ending inventory and cost of goods sold: specific identification, FIFO, LIFO, and averaging.

Question: In the coverage of financial accounting to this point, general standardization has been evident. Most transactions are recorded in an identical fashion by all companies. This defined structure helps ensure understanding. It also enhances the ability of decision makers to compare results from one year to the next or from one company to another. For example, inventory—except in unusual circumstances—is always reported at historical cost unless its value is lower. Experienced decision makers should be well aware of that criterion when they are reviewing the inventory figures reported by a company.

However, an examination of the notes to financial statements for some well-known businesses shows an interesting inconsistency in the reporting of inventory (emphasis added).

Mitsui & Co. (U.S.A.) Inc.—as of March 31, 2009:
"Inventories, consisting mainly of commodities and materials for resale, are stated at the lower of cost, principally on the specific-identification basis, or market."

Johnson & Johnson and Subsidiaries—as of December 28, 2008: "Inventories are stated at the lower-of-cost-or-market determined by the first-in, first-out method."

Safeway Inc. and Subsidiaries—as of December 31, 2008: "Merchandise inventory of $1,740 million at year-end 2008 and $1,866 million at year-end 2007 is valued at the lower of cost on a last-in, first-out ('LIFO') basis or market value."

Bristol-Myers Squibb—as of December 31, 2008: "Inventories are generally stated at average cost, not in excess of market."

"Specific-identification basis," "first-in, first-out," "last-in, first-out," "average cost"—what information do these terms provide? Why are all of these companies using different methods?
In the financial reporting of inventory, what is the significance of disclosing that a company applies "first-in, first-out," "last-in, first-out," or the like?

Answer: In the previous chapter, the cost of all inventory items was kept constant over time. Although that helped simplify the initial presentation of relevant accounting issues, such stability is hardly a realistic assumption. For example, the retail price of gasoline has moved up and down like a yo-yo in recent years. The cost of some commodities, such as bread and soft drinks, has increased gradually for many decades. In other industries, prices actually tend to fall over time. New technology products often start with a high price that drops as the manufacturing process ramps up and becomes more efficient. Several years ago, personal computers cost tens of thousands of dollars and now sell for hundreds.

A key event in accounting for inventory is the transfer of cost from the inventory T-account to cost of goods sold as the result of a sale. The inventory balance is reduced and the related expense is increased. For large organizations, such transactions can take place thousands of times each day. If each item has an identical cost, no problem exists. This standard amount is always reclassified into expense to reflect the sale.

However, if inventory items are acquired at different costs, which cost is moved from asset to expense? At that point, a cost flow assumption must be selected by company officials to guide reporting. That choice can have a significant impact on both the income statement and the balance sheet. It is literally impossible to analyze the reported net income and inventory balance of a company such as ExxonMobil without knowing the cost flow assumption that has been applied.

Question: An example is probably the easiest approach by which to demonstrate cost flow assumptions. Assume a men's retail clothing store holds $120 in cash. On October 26, Year One, one blue dress shirt is bought for $50 in cash for resell purposes. Later, near the end of the year, this style of shirt becomes especially popular. On December 29, Year One, the store's manager buys a second shirt exactly like the first but this time at a cost of $70. Cash on hand has been depleted completely ($120 less $50 and $70) but the company now holds two shirts in its inventory.

Then, on December 31, Year One, a customer buys one of these two shirts by paying cash of $110. Regardless of the cost flow assumption, the company retains one blue dress shirt in inventory at the end of the year and cash of $110. It also reports sales revenue of $110. Those facts are not in doubt.

From an accounting perspective, two questions are left to be resolved (1) what is the cost of goods sold reported for the one shirt that was sold and (2) what is the cost remaining in inventory for the one item still on hand?

In simpler terms, should the $50 or $70 be reclassified to cost of goods sold; should the $50 or $70 remain in ending inventory? For financial accounting, the importance of the answers to those questions cannot be overemphasized. What are the various cost flow assumptions and how are they applied to inventory?

Answer: *SPECIFIC IDENTIFICATION*. In a literal sense, **specific identification** is not a cost flow assumption. Companies that use this approach are not making an assumption because they know which item was sold. By some technique, they are able to identify the inventory conveyed to the customer and reclassify its cost to expense.

For some types of inventory, such as automobiles held by a car dealer, specific identification is relatively easy to apply. Each vehicle tends to be somewhat unique and can be tracked through identification numbers. Unfortunately, for many other types of inventory, no practical method exists for determining the physical flow of merchandise.

Thus, if the men's retail store maintains a system where the individual shirts are marked in some way, it will be possible to know whether the $50 shirt or the $70 shirt was actually conveyed to the customer. That cost can be moved from asset to expense.

However, for identical items like shirts, cans of tuna fish, bags of coffee beans, hammers, packs of notebook paper and the like, the idea of maintaining such precise records is ludicrous. What informational benefit could be gained by knowing whether the first blue shirt was sold or the second? In most cases, the cost of creating such a meticulous record-keeping system far outweighs any potential advantages.

FIRST-IN, FIRST-OUT (FIFO). The **FIFO** cost flow assumption is based on the premise that selling the oldest item first is most likely to mirror reality. Stores do not want inventory to grow unnecessarily old and lose freshness. The oldest items are often placed on top in hopes that they will sell first before becoming stale or damaged. Therefore, although the identity of the actual item sold is rarely known, the assumption is made in applying FIFO that the first (or oldest) cost is always moved from inventory to cost of goods sold.

Note that it is not the oldest item that is necessarily sold but rather the oldest cost that is reclassified to cost of goods sold. No attempt is made to determine which shirt was purchased by the customer. Here, because the first shirt cost $50, the following entry is made to record the expense and reduce the inventory.

Figure 9.1 Journal Entry—Reclassification of the Cost of One Piece of Inventory Using FIFO

For this retail store, the following financial information is reported if FIFO is applied. Two shirts were bought for ($50 and $70) and one shirt was sold for $110.

FIFO	
Cost of Goods Sold (One Unit—the First One)	$50
Gross Profit ($110 less $50)	$60
Ending Inventory (One Unit—the Last One)	$70

In a period of rising prices, the earliest (cheapest) cost moves to cost of goods sold and the latest (more expensive) cost is retained in ending inventory. For this reason, in inflationary times, FIFO is associated with a higher reported net income as well as a higher reported inventory total on the company's balance sheet. Not surprisingly, these characteristics help make it a popular choice.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092903.html

LAST-IN, FIRST-OUT (LIFO). **LIFO** is the opposite of FIFO: the most recent costs are moved to expense as sales are made.

Theoretically, the LIFO assumption is often justified as more in line with the matching principle. Shirt One was bought on October 26 whereas Shirt Two was not acquired until December 29. Revenue was earned on December 31. Proponents of LIFO argue that matching the December 29 cost with the December 31 revenue is more appropriate than using a cost incurred months earlier. According to this reasoning, income is more properly determined with LIFO because a relatively current cost is shown as cost of goods sold rather than a figure that is out-of-date. The difference is especially apparent in periods of high inflation. “By matching current costs against current sales, LIFO produces a truer picture of income; that is, the quality of income produced by the use of LIFO is higher because it more nearly approximates disposable income” (Rumble, 1983). Note 1 to the 2008 financial statements for ConocoPhillips reiterates that point: “LIFO is used to better match current inventory costs with current revenues.”

The last cost incurred in buying two blue shirts was $70 so that amount is reclassified to expense at the time of the first sale.

Figure 9.2 Journal Entry—Reclassification of the Cost of One Piece of Inventory Using LIFO

Cost of Goods Sold	70	
Inventory		70

Although the physical results of these transaction are the same (one unit was sold, one unit was retained, and the company holds $110 in cash), the financial picture painted using the LIFO cost flow assumption is quite different from in the earlier FIFO example.

LIFO	
Cost of Goods Sold (One Unit—the Last One)	$70
Gross Profit ($110 Less $70)	$40
Ending Inventory (One Unit—the First One)	$50

Characteristics commonly associated with LIFO can be seen in this example. When prices rise, LIFO companies report lower net income (the most recent and, thus, the most costly purchases are moved to expense) and a lower inventory account on the balance sheet (because the earlier and cheaper costs remain in the inventory T-account). As will be discussed in a subsequent section, LIFO is popular in the United States because it helps reduce the amount companies pay in income taxes.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092888.html

Averaging. Because the identity of the items conveyed to buyers is unknown, this final cost flow assumption holds that using an average of all costs is the most logical solution. Why choose any individual cost if no evidence exists of its validity? The first item received might have been sold or the last. Selecting either is an arbitrary decision. If items with varying costs are held, using an average provides a very appealing logic. In the shirt example, the two units cost a total of $120 ($50 plus $70) so the average is $60 ($120/2 units).

Figure 9.3 Journal Entry—Reclassification of the Cost of One Piece of Inventory Using Averaging

Cost of Goods Sold	60	
Inventory		60

Although no shirt did cost $60, this average serves as the basis for both cost of goods sold as well as the cost of the item still on hand. All costs are included in arriving at each reported figure.

Averaging	
Cost of Goods Sold (One Unit—the Average One)	$60
Gross Profit ($110 less $60)	$50
Ending Inventory (One Unit—the Average One)	$60

Averaging has many supporters. However, it can be a more complicated system to implement especially if costs change frequently. In addition, it does not offer the benefits that make FIFO (higher reported income) and LIFO (lower taxes in the United States) so appealing. Company officials often arrive at such practical decisions based on an evaluation of advantages and disadvantages and not on theoretical merit.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092923.html

Key Takeaways

U.S. GAAP tends to apply standard reporting rules for many transactions to make financial statements more usable by decision makers. The application of an inventory cost flow assumption is one area where a significant variation is present. A company can choose to use specific identification, first-in, first-out (FIFO), last-in, first-out (LIFO), or averaging. Each of these assumptions determines the cost moved from inventory to cost of goods sold to reflect the sale of merchandise in a different manner. The reported inventory balance as well as the expense on the income statement (and, hence, net income) are dependent on the cost flow assumption that is selected.

References

Rumble, C. T., “So You Still Have Not Adopted LIFO,” *Management Accountant*, October 1983, 50.

9.2 The Selection of a Cost Flow Assumption for Reporting Purposes

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Appreciate that reported inventory and cost of goods sold numbers are not intended to be right or wrong but rather must conform to U.S. GAAP, which includes several different allowable cost flow assumptions.
2. Recognize that three cost flow assumptions (FIFO, LIFO, and averaging) are particularly popular in the United States.
3. Understand the meaning of the LIFO conformity rule and realize that use of LIFO in the U.S. largely stems from the presence of this tax rule.
4. Know that U.S. companies prepare financial statements according to U.S. GAAP and their income tax returns based on the Internal Revenue Code so that significant differences often exist.

Question: FIFO, LIFO, and averaging can present radically different portraits of identical events. Is the gross profit for this men's clothing store really $60 (FIFO), $40 (LIFO), or $50 (averaging) in connection with the sale of one blue shirt? Analyzing the numbers presented by most companies can be difficult if not impossible without understanding the implications of the assumption applied. Which of the cost flow assumptions is viewed as most appropriate in producing fairly presented financial statements?

Answer: Because specific identification reclassifies the cost of the actual unit that was sold, finding theoretical fault with that approach is difficult. Unfortunately, specific identification is nearly impossible to apply unless easily distinguishable differences exist between similar inventory items. That leaves FIFO, LIFO, and averaging. Arguments over both their merits and problems have raged for decades. Ultimately, the numbers in financial statements must be presented fairly based on the cost flow assumption that is applied.

In Chapter 6 "Why Should Decision Makers Trust Financial Statements?", an important distinction was made. The report of the independent auditor never assures decision makers that financial statements are "presented fairly." That is a hopelessly abstract concept like truth and beauty. Instead, the auditor states that the statements are "presented fairly…in conformity with accounting principles generally accepted in the United States of America." That is a substantially more objective standard. Thus, for this men's clothing store, all the following figures are presented fairly but only in conformity with the cost flow assumption used by the reporting company.

Figure 9.4 Results of Possible Cost Flows Assumptions Used by Clothing Store

	Gross Profit	Ending Inventory	
Bought Two Units and Sold One	$60	$70	based on application of FIFO
Bought Two Units and Sold One	40	50	based on application of LIFO
Bought Two Units and Sold One	50	60	based on application of averaging

Question: *Since company officials are allowed to select a cost flow assumption, which of these methods is most typically found in the reporting of companies in the United States?*

Answer: To help interested parties gauge the usage of various accounting principles, a survey is carried out annually of the financial statements of six hundred large companies in this country. The resulting information allows accountants, auditors, and decision makers to weigh the validity of a particular method or presentation. For 2007, that survey found the following frequency of application of cost flow assumptions. Some companies use multiple assumptions: one for a particular part of inventory and a different one for the remainder. Thus, the total here is well above six hundred even though over one hundred of the surveyed companies did not have inventory or mention a cost flow assumption (inventory was probably an immaterial amount). As will be discussed a bit later in this chapter, using multiple assumptions is especially common when a U.S. company has subsidiaries located internationally.

Inventory Cost Flow Assumptions—600 Companies Surveyed (Iofe & Calderisi, 2008)	
First-in, First-out (FIFO)	391
Last-in, First-out (LIFO)	213
Averaging	155
Other	24

Interestingly, individual cost flow assumptions tend to be more prevalent in certain industries. In this same survey, 86 percent of the financial statements issued by food and drug stores used LIFO whereas only 10 percent of the companies labeled as “computers, office equipment” had adopted this same approach. That difference could quite possibly be caused by the presence of inflation or deflation. Prices of food and drugs tend to escalate consistently over time while computer prices often fall as technology advances

Question: In periods of inflation, as demonstrated by the previous example, FIFO reports a higher gross profit (and, hence, net income) and a higher inventory balance than does LIFO. Averaging presents figures that normally fall between these two extremes. Such results are widely expected by those readers of financial statements who understand the impact of the various cost flow assumptions.

Any one of these methods is permitted for financial reporting. Why is FIFO not the obvious choice for every *organization that anticipates inflation in its inventory costs? Officials must prefer to report figures that make the company look stronger and more profitable. With every rise in prices, FIFO shows a higher income because the earlier (cheaper) costs are transferred to cost of goods sold. Likewise, FIFO reports a higher total inventory on the balance sheet because the later (higher) cost figures are retained in the inventory T-account. The company is no different physically by this decision but FIFO makes it look better. Why does any company voluntarily choose LIFO, an approach that reduces reported income and total assets when prices rise?*

Answer: LIFO might well have faded into oblivion because of its negative impact on key reported figures (during inflationary periods) except for a U.S. income tax requirement known as the **LIFO conformity rule**. Although this tax regulation is not part of U.S. GAAP and looks rather innocuous, it has a huge impact on the way inventory and cost of goods sold are reported to decision makers in this country.

As prices rise, companies prefer to apply LIFO for tax purposes because this assumption reduces reported income and, hence, required cash payments to the government. In the United States, LIFO has come to be universally equated with the saving of tax dollars. When LIFO was first proposed as a tax method in the 1930s, the United States Treasury Department appointed a panel of three experts to consider its validity. The members of this group were split over a final resolution. They eventually agreed to recommend that LIFO be allowed for income tax purposes but only if the company was also willing to use LIFO for financial reporting. At that point, tax rules bled over into U.S. GAAP.

The rationale behind this compromise was that companies were allowed the option but probably would not choose LIFO for their tax returns because of the potential negative effect on figures reported to investors, creditors, and others. During inflationary periods, companies that apply LIFO do not look as financially healthy as those that adopt FIFO. Eventually this recommendation was put into law and the LIFO conformity rule was born. If LIFO is used on a company's income tax return, it must also be applied on the financial statements.

However, as the previous statistics point out, this requirement did not prove to be the deterrent that was anticipated. Actual use of LIFO has become quite popular. For many companies, the savings in income tax dollars more than outweigh the problem of having to report numbers that make the company look a bit weaker. That is a choice that company officials must make.

Figure 9.5 Advantages and Disadvantages of FIFO and LIFO

	Advantages*	Disadvantages*
FIFO	Company Looks Financially Stronger	Company Pays More Taxes
LIFO	Company Pays Less Taxes	Company Looks Financially Weaker

*Assumes a rise in prices over time.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092924.html

Question: The LIFO conformity rule requires companies that apply LIFO for income tax purposes to also use that same method for their financial reporting to investors, creditors, and other decision makers. Is the information submitted to the government for income tax purposes not always the same as that presented to decision makers in a set of financial statements? Reporting different numbers seems unethical.

Answer: In jokes and in editorials, companies are often derisively accused of "keeping two sets of books." The implication is that one is skewed toward making the company look good (for reporting purposes) whereas the other makes the company look bad (for taxation purposes). However, the existence of separate records is a practical necessity. One set is kept based on applicable tax laws while the other enables the company to prepare its financial statements according to U.S. GAAP. Different rules mean that different numbers result.

In filing income taxes with the United States government, a company must follow the regulations of the Internal Revenue Code[1]. Those laws have several underlying objectives that influence their development.

First, they are designed to raise money for the operation of the federal government. Without adequate funding, the government could not provide hospitals, build roads, maintain a military and the like.

Second, income tax laws enable the government to help regulate the health of the economy. Simply by raising or lowering tax rates, the government can take money out of the economy (and slow public spending) or leave money in the economy (and increase public spending). As an illustration, recently a significant tax break was passed by Congress for first-time home buyers. This move was designed to stimulate the housing market by encouraging additional individuals to consider making a purchase.

Third, income tax laws enable the government to assist certain members of society who are viewed as deserving help. For example, taxpayers who encounter high medical costs or casualty losses are entitled to a tax break. Donations conveyed to an approved charity can also reduce a taxpayer's tax bill. The rules and regulations were designed to provide assistance for specified needs.

In contrast, financial reporting for decision makers must abide by the guidance of U.S. GAAP, which seeks to set rules for the fair presentation of accounting information. That is the reason U.S. GAAP exists. Because the goals are entirely different, there is no particular reason for the resulting financial statements to correspond to the tax figures submitted to the Internal Revenue Service (IRS). Not surprisingly, though, significant overlap is found between tax laws and U.S. GAAP. For example, both normally recognize the cash sale of merchandise as revenue at the time of sale. However, countless differences do exist between the two sets of rules. Depreciation, as just one example, is computed in an entirely different manner for tax purposes than for financial reporting.

Although separately developed, financial statements and income tax returns are tied together at one significant spot: the LIFO conformity rule. If a company chooses to use LIFO for tax purposes, it must do the same for financial reporting. Without that requirement, many companies likely would use FIFO in creating their financial statements and LIFO for their income tax returns. Much of the popularity shown earlier for LIFO is undoubtedly derived from this tax requirement rather than any theoretical merit.

Key Takeaways

Information found in financial statements is required to be presented fairly in conformity with U.S. GAAP. Because several inventory cost flow assumptions are allowed, presented numbers can vary significantly from one company to another and still be appropriate. FIFO, LIFO, and averaging are all popular. Understanding and comparing financial statements is quite difficult without knowing the implications of the method selected. LIFO, for example, tends to produce low-income figures in a period of inflation. This assumption probably would not be used extensively except for the LIFO conformity rule that prohibits its use for tax purposes unless also reported on the company's financial statements. Typically, financial reporting and the preparation of income tax returns are unrelated because two sets of rules are used with radically differing objectives. However, the LIFO conformity rule joins these two at this one key spot.

[1]Many states also charge a tax on income. These states have their own unique set of laws although they often resemble the tax laws applied by the federal government.

References

Iofe, Y., senior editor, and Matthew C. Calderisi, CPA, managing editor, *Accounting Trends & Techniques*, 62nd edition (New York: American Institute of Certified Public Accountants, 2008), 159.

9.3 Problems with Applying LIFO

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Recognize that theoretical problems with LIFO have led the creators of IFRS rules to prohibit its use.
2. Explain that the biggest problem associated with LIFO is an inventory balance that can often show costs from years (or even decades) earlier that are totally irrelevant today.
3. Identify the cause of a LIFO liquidation and the reason that it is viewed as a theoretical concern by accountants.

Question: As a result of the LIFO conformity rule in the tax laws, this cost flow assumption is widely used in the United States. LIFO, though, is not allowed in many other areas of the world. It is not simply unpopular in those locations; its application is strictly forbidden. Thus, international companies are often forced to resort to alternatives in reporting their foreign subsidiaries. For example, a footnote to the 2008 financial statements of American Biltrite Inc. explains that "Inventories are stated at the lower-of-cost-or-market. Cost is determined by the last-in, first-out (LIFO) method for most of the Company's domestic inventories. The use of LIFO results in a better matching of costs and revenues. Cost is determined by the first-in, first-out (FIFO) method for the Company's foreign inventories."

Why is LIFO not accepted in most countries outside the United States?

Answer: Although LIFO can be supported as providing a proper matching of expenses (cost of goods sold) with revenues, a number of serious theoretical problems are created by its application. The most common accusation against LIFO is that it often presents a balance sheet number that is completely out-of-date and useless. When applying this assumption, the latest costs get moved to cost of goods sold so the earlier costs remain in the inventory account—possibly for years and even decades. After some period of time, this asset balance is likely to report a number that has no relevance to today's prices.

For example, in its 2007 financial statements, ExxonMobil reported inventory on its balance sheet at slightly over $11.1 billion based on applying LIFO. In the footnotes to those financial statements, the company disclosed that the current cost to acquire this same inventory was $25.4 billion higher than the number being reported. The asset was shown as $11.1 billion but the price to buy that same inventory was actually $36.5 billion ($11.1 billion plus $25.4). What is the possible informational value of reporting an asset that is being held for sale at an amount more than $25 billion below its current value?[1] That is the essential problem attributed to LIFO.

To illustrate, assume that a gas station has a tank that holds ten thousand gallons of gasoline. On January 1, Year One, the tank is filled at a cost of $1 per gallon. Almost immediately the price of gasoline jumps to $2 per gallon.

During the remainder of Year One, the station buys and sells one million gallons of gas. Thus, ten thousand gallons remain in the tank at year's end: ten thousand gallons plus one million gallons bought minus one million gallons sold equals ten thousand gallons. LIFO and FIFO report these results as follows:

LIFO	
Ending Inventory—10,000 gallons at first cost of $1 per gallon	$10,000
Cost of Goods Sold—1,000,000 gallons at last cost of $2 per gallon	2,000,000

FIFO	
Ending Inventory—10,000 gallons at last cost of $2 per gallon	$20,000
Cost of Goods Sold—first 10,000 gallons at $1 per gallon and next 990,000 gallons at $2 per gallon	1,990,000

After just one period, the asset balance shown by LIFO ($1 per gallon) is already beginning to differ from the current cost of $2 per gallon.

If this company continues to buy and sell the same amount annually so that it finishes each year with a full tank of ten thousand gallons (certainly not an unreasonable assumption), LIFO will continue to report this inventory at $1 per gallon for the following decades regardless of current prices. New costs always get transferred to cost of goods sold leaving the first costs ($1 per gallon) in inventory. The tendency to report this asset at a cost expended many years in the past is the single biggest reason that LIFO is viewed as an illegitimate method in many countries. And that same sentiment would probably exist in the United States except for the LIFO conformity rule.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092889.html

Question: LIFO is also criticized because of the possibility of an event known as a **LIFO liquidation**. *What is a LIFO liquidation and why does it cause a theoretical problem for accountants?*

Answer: As demonstrated above, over time, costs from much earlier years often remain in the inventory T-account when LIFO is applied. A gasoline station that opens in 1972 and ends each year with a full tank of ten thousand gallons of gasoline will report its inventory balance at 1972 costs even in the year 2010 when using LIFO. However, if the quantity of the ending inventory is ever allowed to decrease (accidentally or on purpose), some or all of those 1972 costs move to cost of goods sold. Revenue earned in 2010 is then matched with costs from 1972. That is a LIFO liquidation that can artificially inflate reported earnings if those earlier costs are relatively low.

To illustrate, assume that a station starts 2010 with ten thousand gallons of gasoline. LIFO has been applied over the years so that the inventory is reported at the 1972 cost of $0.42 per gallon. In the current year, gasoline cost

$2.55 per gallon to buy and is then sold to the public for $2.70 per gallon creating a normal gross profit of $0.15 per gallon. That is the amount of income that a station is making at this time.

At the beginning of 2010, the station sells its entire stock of ten thousand gallons of gasoline and then ceases to carry this product (perhaps the owners want to focus on groceries or automobile parts). Without any replacement of the inventory, the cost of the gasoline bought in 1972 for $0.42 per gallon is shifted from inventory to cost of goods sold in 2010. Instead of the normal profit margin of $0.15 per gallon or $1,500 for ten thousand gallons, the company reports a gross profit of $2.28 per gallon ($2.70 sales price minus $0.42 cost of goods sold). That amount does not reflect the reality of current market conditions. It allows the company to look overly profitable.

In a LIFO liquidation, costs from an earlier period are matched with revenues of the present year. Revenue is measured in 2010 dollars but cost of goods sold is stated in 1972 prices. Although the reported figures are technically correct, the implication that this station can earn a gross profit of $2.28 per gallon is misleading.

To allow decision makers to properly understand the effect that a LIFO liquidation has on reported net income, disclosure in the company's footnotes is needed whenever costs are mismatched in this manner. According to the footnotes to the 2008 financial statements for Alcoa Inc., "during 2008 and 2007, LIFO inventory quantities were reduced, which resulted in a partial liquidation of the LIFO base. The impact of this liquidation increased net income by $25 (million) in 2008 and $20 (million) in 2007."

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092925.html

Talking with an Independent Auditor about International Financial Reporting Standards (Continued)

Following is a continuation of our interview with Robert A. Vallejo, partner with the accounting firm PricewaterhouseCoopers.

Question: Companies in the United States are allowed to choose FIFO, LIFO, or averaging as an inventory cost flow assumption. Over the years, many U.S. companies have adopted LIFO, in part because of the possibility of reducing income taxes during a period of inflation. However, IFRS rules do not recognize LIFO as appropriate. Why does such strong resistance to LIFO exist outside the United States? If the United States adopts IFRS will all of these companies that now use LIFO have to switch their accounting systems to FIFO or averaging? How much trouble will that be?

Rob Vallejo: The International Accounting Standards Board revised International Accounting Standard No. 2, Inventories (IAS 2), in 2003. The issue of accounting for inventories using a LIFO costing method was debated and I would encourage anyone seeking additional information to read their basis for conclusion which accompanies IAS 2. The IASB did not believe that the LIFO costing method was a reliable representation of actual inventory flows. In other words, in most industries, older inventory is sold to customers before newer inventory. The standard specifically precludes the use of LIFO, but allows for the use of the FIFO or weighted average costing methods as they view these as better representations of actual inventory flows.

Therefore, when companies have to adopt IFRS, the inventory balances and the related impact on shareholders' equity will be restated as if FIFO or average costing had been used for all periods presented. Most companies keep their books on a FIFO or weighted average cost basis and then apply a LIFO adjustment, so the switch to an alternative method should not be a big issue in a mechanical sense. However, the reason most companies apply the LIFO costing method relates to U.S. tax law. Companies that want to apply LIFO for income tax purposes are required to present their financial information under the LIFO method. The big question still being debated is whether or not U.S. tax law will change to accommodate the move to IFRS. This is very important to U.S. companies, as generally, applying LIFO has had a cumulative impact of deferring the payment of income taxes. If companies must change to FIFO or weighted average costing methods for tax purposes, that could mean substantial cash payments to the IRS. Stay tuned for more debate in this area.

Key Takeaways

LIFO is popular in the United States because of the LIFO conformity rule but serious theoretical problems do exist. Because of these concerns, LIFO is prohibited in many places in the world because of the rules established by IFRS. The most recent costs are reclassified to cost of goods sold so earlier costs remain in the inventory account. Consequently, this asset account can continue to show inventory costs from years or even decades earlier—a number that would seem to be of little use to any decision maker. In addition, if these earlier costs are ever transferred to cost of goods sold because of shrinkage in inventory, a LIFO liquidation is said to occur. Revenues are from the current year but cost of goods sold may reflect very old cost numbers. Information about LIFO liquidations appears in the footnotes to the financial statements so readers can weigh the impact.

[1]As will be seen in the next chapter, similar arguments are made in connection with property and equipment—the reported amount and the value can vary greatly. However, those assets are not normally held for resale purpose so that current worth is of much less interest to decision makers.

9.4 Merging Periodic and Perpetual Inventory Systems with a Cost Flow Assumption

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Merge a cost flow assumption (FIFO, LIFO, and averaging) with a method of monitoring inventory (periodic or perpetual) to arrive at six different systems for determining reported inventory figures.
2. Understand that a cost flow assumption is only applied in computing the cost of ending inventory units in a periodic system but is used for each reclassification from inventory to cost of goods sold in a perpetual system.
3. Calculate ending inventory and cost of goods sold under both a periodic and a perpetual FIFO system.
4. Recognize that periodic and perpetual FIFO systems will arrive at identical account balances.

Question: In the previous chapter, periodic and perpetual inventory systems were introduced. FIFO, LIFO, and averaging have now been presented. How does all of this material come together for reporting purposes? How does the application of a cost flow assumption impact the operation of a periodic or a perpetual inventory system?

Answer: Each company that holds inventory must develop a mechanism to both (a) monitor the balances and (b) allow for the creation of financial statements. If a periodic system is used, officials simply wait until financial statements are to be produced before taking a physical count. Then, a formula (beginning inventory plus all purchase costs less ending inventory) is applied to derive cost of goods sold.

In contrast, a perpetual system maintains an ongoing record of the goods that remain on hand and those that have been sold. As noted, both of these systems have advantages and disadvantages.

Companies also select a cost flow assumption to specify the cost that is transferred from inventory to cost of goods sold (and, hence, the cost that remains in the inventory T-account). For a periodic system, the cost flow assumption is only applied when the physical inventory count is taken and the cost of the ending inventory is determined. In a perpetual system, each time a sale is made the cost flow assumption identifies the cost to be reclassified to cost of goods sold. That can occur thousands of times each day.

Therefore, companies normally choose one of six systems to monitor their merchandise balances and determine the cost assignment between ending inventory and cost of goods sold:

- Periodic FIFO

- Perpetual FIFO
- Periodic LIFO
- Perpetual LIFO
- Periodic averaging (also called weighted averaging)
- Perpetual averaging (also called moving averaging)

Question: To illustrate, assume that the Mayberry Home Improvement Store starts the new year with four bathtubs (Model WET-5) in its inventory, costing $110 each ($440 in total) when bought on December 9 of the previous period. The following events then take place during the current year.

- *On February 2, three of these bathtubs are sold for $200 each. (revenue $600)*
- *On February 6, three new bathtubs of this model are bought for $120 each. (cost $360)*
- *On June 8, three of these bathtubs are sold for $250 each. (revenue $750)*
- *On June 13, three new bathtubs of this model are bought for $130 each. (cost $390)*
- *On September 9, two of these bathtubs are sold for $300 each. (revenue $600)*
- *On September 22, two new bathtub of this model are bought for $149. (cost $298)*

At the end of the year, on December 31, a physical inventory is taken that finds that four bathtubs, Model WET-5, are in stock (4 – 3 + 3 – 3 + 3 – 2 + 2). None were stolen, lost, or damaged during the period.

How does a periodic FIFO system differ from a perpetual FIFO system in maintaining accounting records and reporting inventory totals?

Answer: Regardless of the inventory system in use, several pieces of information are established in this example. These data are factual, not impacted by accounting.

Data—Purchase and Sale of WET-5 Bathtubs

- Revenue: Eight units were sold for $1,950 ($600 + $750 + $600)
- Beginning Inventory: Four units costing $110 each or $440 in total were on hand
- Purchases: Eight units were bought during the year costing a total of $1,048 ($360 + $390 + $298)
- Ending Inventory: Four units are still held

Periodic FIFO. In a periodic system, the cost of the new purchases is the focus of the record keeping. At the end of the period, the accountant must count and then determine the cost of the items held in ending inventory. When using FIFO, the first costs are transferred to cost of goods sold so the cost of the last four bathtubs remain in the inventory T-account. That is the FIFO assumption. The first costs are now in cost of goods sold while the most recent costs remain in the asset account.

In this illustration, the last four costs (starting at the end of the period and moving forward) are two units at $149 each and two units at $130 each for a total of $558. Only after that cost is assigned to ending inventory can cost of goods sold be calculated.

Figure 9.6 Periodic FIFO—Bathtub Model WET-5

Beginning Inventory (carried over from previous year)—4 Units at $110 Each	$440
Purchases—8 Units	1,048
Goods Available for Sale (12 units in total)	$1,488
Ending Inventory (physical count)—2 Units at $149 Each and 2 Units at $130 Each Based on Applying FIFO	(558)
Cost of Goods Sold	$930

The last costs for the period remain in ending inventory; the first costs have all been transferred to cost of goods sold. This handling reflects the application of the first-in, first-out cost flow assumption.

Based on the application of FIFO, Mayberry reports gross profit from the sale of bathtubs during this year of $1,020 (revenue of $1,950 minus cost of goods sold of $930).

Perpetual FIFO. Perpetual accounting systems are constructed so that costs can be moved from inventory to cost of goods sold at the time of each new sale. With modern computer processing, that is a relatively simple task. Below is one format that provides the information needed for this home improvement store and its inventory of bathtubs. At points A, B, and C, costs are moved from inventory on hand to cost of goods sold based on FIFO. The cost of the first goods in the "inventory on hand" is reclassified to cost of goods sold at each of those three spots.

Figure 9.7 Perpetual FIFO—Bathtub Model WET-5

	Inventory Acquired →	Inventory On Hand →	Cost of Goods Sold
1/1—Beginning Balance		4 Units @ $110	
2/2—3 Units Sold		1 Unit @ 110	(A) 3 Units @ $110 = $330
2/6—3 Units Bought	3 Units @ $120	1 Unit @ 110 3 Units @ 120	
6/8—3 Units Sold		1 Unit @ $120	(B) 1 Unit @ 110 2 Units @ 120 = 350
6/13—3 Units Bought	3 Units @ 130	1 Unit @ 120 3 Units @ 130	
9/9—2 Units Sold		2 Units @ 130	(C) 1 Unit @ 120 1 Unit @ $130 = 250
9/22—2 Units Bought	2 Units @ 149	2 Units @ 130 2 Units @ 149	
Totals		**$260 + $298 = $558**	**$330 + $350 + $250 = $930**

On this perpetual inventory spreadsheet, the final cell in the "inventory on hand" column ($558 or two units @ $130 and two units at $149) provides the cost of the ending inventory. Summation of the "cost of goods sold" column reflects that expense for the period ($930 or $330 + $350 + $250).

One important characteristic of FIFO should be noted here. Under both periodic and perpetual FIFO, ending inventory is $558 and cost of goods sold is $930. The reported numbers are identical. The first cost for the period is always the first cost regardless of when the assignment to expense is made. Thus, the resulting amounts will be the same using either FIFO system. For that reason, many companies that apply FIFO maintain perpetual records to track the units on hand throughout the period but ignore the costs. Then, when financial statements are prepared, they use a periodic computation to determine the cost of ending inventory in order to compute cost of goods sold. That allows the company to monitor its inventory quantities daily without the expense and effort of identifying the cost associated with each new sale.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092904.html

Key Takeaways

Companies that sell inventory choose a cost flow assumption such as FIFO, LIFO, or averaging. In addition, a method must be applied to monitor inventory balances (either periodic or perpetual). Six combinations of inventory systems can result from these two decisions. With any periodic system, the cost flow assumption is only used to determine the cost of ending inventory so that cost of goods sold can be calculated. For perpetual, the reclassification of costs is performed each time that a sale is made based on the cost flow assumption that was selected. Periodic FIFO and perpetual FIFO systems arrive at the same reported balances because the earliest cost is always the first to be transferred regardless of the method being applied.

9.5 Applying LIFO and Averaging to Determine Reported Inventory Balances

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Determine ending inventory and cost of goods sold using a periodic LIFO system.
2. Monitor inventory on an ongoing basis through a perpetual LIFO system.
3. Understand the reason that periodic LIFO and perpetual LIFO may arrive at different figures.
4. Use a weighted average system to report ending inventory and cost of goods sold.
5. Calculate inventory balances by applying a moving average inventory system.

Question: LIFO reverses the FIFO cost flow assumption so that the last costs incurred are the first reclassified to cost of goods sold. How is LIFO applied to the inventory of an actual business? If the Mayberry Home Improvement Store adopted LIFO, how would the reported figures have been affected by this decision?

Answer: *Periodic LIFO*. In a periodic system, only the computation of the ending inventory is altered by the choice of a cost flow assumption[1]. Thus, for this illustration, beginning inventory remains $440 (4 units at $110 each) and the number of units purchased is still eight with a cost of $1,048. The reported figure that changes is the cost of the ending inventory. Four bathtubs remain in stock at the end of the year. According to LIFO, the last costs are transferred to cost of goods sold; only the cost of the first four units remains in ending inventory. That is $110 per unit or $440 in total.

Figure 9.8 Periodic LIFO—Bathtub Model WET-5

Beginning Inventory (carried over from previous year)—4 Units at $110 Each	$440
Purchases—8 Units	1,048
Goods Available for Sale (12 units in total)	$1,488
Ending Inventory (physical count)—4 Units at $110 Each Based on Applying LIFO	(440)
Cost of Goods Sold	$1,048*

*If the number of units bought equals the number of units sold—as seen in this example—the quantity of inventory remains unchanged. In a periodic LIFO system, beginning inventory ($440) is then the same as ending inventory ($440) so that cost of goods sold ($1,048) equals the amount spent during the period to purchase inventory ($1,048). Therefore, during the year, company officials can keep track of gross profit by subtracting purchases from revenues.

Mayberry Home Improvement Store reports gross profit using periodic LIFO of $902 (revenue of $1,950 less cost of goods sold of $1,048).

Note here that the anticipated characteristics of LIFO are present. Ending inventory of $440 is lower than that reported by FIFO ($558). Cost of goods sold ($1,048) is higher than under FIFO ($930) so that the reported gross profit (and, hence, net income) is lower by $118 ($1,020 for FIFO versus $902 for LIFO).

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092905.html

Perpetual LIFO. The mechanical structure for a perpetual LIFO system is the same as that demonstrated for perpetual FIFO except that the most recent costs are moved into cost of goods sold at the time of each sale (points A, B, and C).

Figure 9.9 Perpetual LIFO—Bathtub Model WET-5

	Inventory Acquired →	Inventory On Hand →	Cost of Goods Sold
1/1—Beginning Balance		4 Units @ $110	
2/2—3 Units Sold		1 Unit @ 110	(A) 3 Units @ $110 = 330
2/6—3 Units Bought	3 Units @ $120	1 Unit @ 110 3 Units @ 120	
6/8—3 Units Sold		1 Unit @ 110	(B) 3 Units @ 120 = 360
6/13—3 Units Bought	3 Units @ 130	1 Unit @ 110 3 Units @ 130	
9/9—2 Units Sold		1 Unit @ 110 1 Unit @ 130	(C) 2 Units @ 130 = 260
9/22—2 Units Bought	2 Units @ 149	1 Unit @ 110 1 Unit @ 130 2 Units @ 149	
Totals		**$110 + $130 + $298 = $538**	**$330 + $360 + $260 = $950**

Once again, the last cell in the "inventory on hand" column contains the asset figure to be reported on the balance sheet (a total of $538) while the summation of the "cost of goods sold" column provides the amount to be shown on the income statement ($950).

As can be seen here, periodic and perpetual LIFO do not necessarily produce identical numbers.

periodic LIFO: ending inventory $440 and cost of goods sold $1,048
perpetual LIFO: ending inventory $538 and cost of goods sold $950

Periodic and perpetual FIFO always arrive at the same results. In contrast, balances reported by periodic and perpetual LIFO frequently differ. Although the first cost incurred in a period (the cost transferred to expense under FIFO) is the same regardless of the date of sale, this is not true for the last or most recent cost (expensed according to LIFO).

As an illustration, note that two bathtubs were sold on September 9 in this example. Perpetual LIFO immediately determines the cost of this sale and reclassifies the amount. On that date, the cost of the last two units ($130 each) came from the June 13 purchase. That amount is expensed. In contrast, a periodic LIFO system makes that same determination but not until December 31. As viewed from year's end, the last costs were $149 each. Although these items were bought on September 22, which is after the last sale, they are included in the cost of goods sold for a periodic LIFO system.

Two bathtubs were sold on September 9 but the identity of the specific costs to be transferred depends on the date on which the determination is made. A periodic system views the costs from the perspective of the end of the year, while perpetual does so immediately when a sale is made.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092891.html

Question: Not surprisingly, averaging follows a path similar to that of the previous examples. Costs are either moved to cost of goods sold at the end of the year (periodic or weighted average) or at the time of each new sale (perpetual or moving average). The only added variable to this process is the calculation of average cost. In the operation of an averaging system, when and how is the average cost of inventory determined?

Answer: *Periodic (weighted) average*. In the problem being examined here, Mayberry Home Improvement Store eventually held twelve bathtubs. Four of these units were on hand at the start of the year and the other eight were acquired during the period. The beginning inventory cost $440 and the new purchases were bought for a total of $1,048. Thus, these twelve units had a total cost of $1,488 ($440 + $1,048) or $124 per bathtub ($1,488/12 units). When applying a weighted average system, this single average is the basis for both the ending inventory and cost of goods sold to be included in the company's financial statements. No item actually cost $124 but that average is applied to all units.

Figure 9.10 Periodic (Weighted) Average—Bathtub Model WET-5

Beginning Inventory (carried over from previous year)—4 Units at $110 Each	$440
Purchases—8 Units	1,048
Goods Available for Sale (12 units in total)	$1,488
Ending Inventory (physical count)—4 Units at $124 Each	
Based on Applying Periodic Averaging	(496)
Cost of Goods Sold (can also be determined as 8 units at an average cost of $124 each)	$992

Perpetual (moving) average. In this final approach to maintaining and reporting inventory, each time that a company buys inventory at a new price, the average cost is recalculated. Therefore, a moving average system must be programmed to update the average whenever additional merchandise is acquired.

Below, a new average is computed at points D, E, and F. Each time this figure is found by dividing the number of units on hand after the purchase into the total cost of those items. For example, at point D, the company now has four bathtubs. One cost $110 while the other three were acquired for $120 each or $360 in total. Total cost was $470 ($110 + $360) for these four units for a new average of $117.50 ($470/4 units). That average is then used until the next purchase is made. The applicable average at the time of sale is transferred from inventory to cost of goods sold at points A ($110.00), B ($117.50), and C ($126.88) below.

Figure 9.11 Perpetual (Moving) Average—Bathtub Model WET-5

	Inventory Acquired →	Inventory on Hand →	Cost of Goods Sold
1/1—Beginning Balance		4 Units @ $110 = $440	
2/2—3 Units Sold		1 Unit @ 110 = 110	(A) 3 Units @ $110 = $330
2/6—3 Units Bought	3 Units @ $120	1 Unit @ 110 = 110 3 Units @ 120 = 360	
New Average		(D) 4 Units @ 117.50 = 470	
6/8—3 Units Sold		1 Unit @ 117.50	(B) 3 Units @ 117.50 = 352.50
6/13—3 Units Bought	3 Units @ 130	1 Unit @ 117.50 = 117.50 3 Units @ 130 = 390	
New Average		(E) 4 Units @ 126.88 = 507.50	
9/9—2 Units Sold		2 Units @ 126.88 = 253.76	(C) 2 Units @ 126.88 = 253.76
9/22—2 Units Bought	2 Units @ 149	2 Units @ 126.88 = 253.76 2 Units @ 149 = 298	
New Average		(F) 4 Units @ 137.94 = 551.76	
Totals		**$551.76**	**$330 + $352.50 + $253.76 = $936.26**

Summary. The six inventory systems shown here for Mayberry Home Improvement Store provide a number of distinct pictures of ending inventory and cost of goods sold. As stated earlier, these numbers are all fairly presented but only in conformity with the specified principles being applied.

Figure 9.12 Six Inventory Systems

	Periodic FIFO	Perpetual FIFO	Periodic LIFO	Perpetual LIFO	Weighted Average	Moving Average
Ending Inventory (4 Units)	$558.00	$558.00	$440.00	$538.00	$496.00	$551.76
Cost of Goods Sold (8 Units)	930.00	930.00	1,048.00	950.00	992.00	936.26
Gross Profit (Sales Revenue of $1,950 Less Cost of Goods Sold)	$1,020.00	$1,020.00	$902.00	$1,000.00	$958.00	$1,013.74

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092932.html

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092933.html

Key Takeaways

A periodic LIFO inventory system begins by computing the cost of ending inventory at the end of a period and then uses that figure to calculate cost of goods sold. Perpetual LIFO also transfers the most recent cost to cost of goods sold but makes that reclassification at the time of each sale. A weighted average inventory system determines a single average for the entire period and applies that to both ending inventory and the cost of goods sold. A moving average system computes a new average cost whenever merchandise is acquired. That figure is then reclassified to cost of goods sold at the time of each sale until the next purchase is made.

[1]Because ending inventory for one period becomes the beginning inventory for the next, application of a cost flow assumption does change that figure also. However, the impact is only indirect because the number is simply carried over from the previous period. No current computation of beginning inventory is made based on the cost flow assumption in use.

9.6 Analyzing Reported Inventory Figures

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Use information found in footnote disclosure to convert LIFO balance sheet and income statement numbers into their FIFO or current cost equivalents.
2. Compute a company's gross profit percentage and explain the relevance of this figure.
3. Calculate the average number of days that inventory is held and provide reasons why companies worry if this figure starts moving upward unexpectedly.
4. Compute the inventory turnover and explain its meaning.

Question: The point has been made several times in this chapter that LIFO provides a lower reported net income than does FIFO when prices are rising. In addition, the inventory figure shown on the balance sheet will be below current cost if LIFO is applied during inflation. Comparison between companies that are similar can become difficult, if not impossible, when one uses FIFO and the other LIFO. For example, Rite Aid, the drug store giant, applies LIFO while its rival CVS Caremark applies FIFO to the inventory held in its CVS pharmacies. How can an investor possibly compare the two companies? In that situation, the utility of the financial information seems limited.

How do experienced decision makers manage to compare companies that apply LIFO to others that do not?

Answer: Significant variations in reported balances frequently result from the application of different cost flow assumptions. Because of potential detrimental effects on these figures, companies that use LIFO often provide additional information to help interested parties understand the impact of this choice. For example, a footnote to the 2008 financial statements of Safeway Inc. and Subsidiaries discloses: "merchandise inventory of $1,740 million at year-end 2008 and $1,886 million at year-end 2007 is valued at the lower of cost on a last-in, first-out ('LIFO') basis or market value. Such LIFO inventory had a replacement or current cost of $1,838 million at year-end 2008 and $1,949 million at year-end 2007." Here, the reader is told that this portion of the company's inventory was reported as $1,740 million and $1,886 million although really worth $1,838 million and $1,949 million (the equivalent of using FIFO).

If a decision maker is comparing the 2008 year-end balance sheet of Safeway to another company that did not use LIFO, the inventory balance could be increased from $1,740 million to $1,838 million to show that this asset was worth an additional $98 million ($1,838 million less $1,740 million). Thus, the dampening impact of LIFO on reported assets can be removed easily by the reader. Restatement of financial statements in this manner is a common technique relied on by investment analysts around the world to make available information more usable.

Adjusting Safeway's balance sheet from LIFO to current cost (FIFO) is not difficult because relevant information is available in the footnotes. However, restating the company's income statement to numbers in line with FIFO is a bit more challenging. Safeway reported net income for 2008 of $965.3 million. How would that number have been different with the application of FIFO to all inventory?

As seen in the periodic inventory formula, beginning inventory is added to purchases in determining cost of goods sold while ending inventory is subtracted. With the LIFO figures reported by Safeway, $1,886 million (beginning inventory) was added in arriving at this expense and then $1,740 million (ending inventory) was subtracted. Together, the net effect is an addition of $146 million ($1,886 million less $1,740 million) in computing cost of goods sold for 2008. The expense was $146 million higher than the amount of inventory purchased.

In comparison, if the current cost of the inventory had been used by Safeway, $1,949 million (beginning inventory) would have been added while $1,838 million (ending inventory) subtracted. These two balances produce a net effect on cost of goods sold of adding $111 million.

LIFO: cost of goods sold = purchases + $146 million
FIFO: cost of goods sold = purchases + $111 million

Under LIFO, cost of goods sold is the purchases for the period plus $146 million. Using current cost, cost of goods sold is the purchases plus only $111 million. The purchase figure is the same in both equations. Thus, cost of goods sold will be $35 million higher according to LIFO ($146 million less $111 million) and net income $35 million lower. If FIFO had been used, Safeway's reported income would have been approximately $1 billion instead of $965.3 million. Knowledgeable decision makers can easily make this adjustment for themselves to help in evaluating a company. They can determine the amount of net income to be reported if LIFO had not been selected and can then use that figure for comparison purposes.

In its 2008 financial statements, Sherwin-Williams simplifies this process by disclosing that its reported net income was reduced by $49,184,000 as a result of applying LIFO. Inclusion of the data was explained by clearly stating that "This information is presented to enable the reader to make comparisons with companies using the FIFO method of inventory valuation."

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092934.html

Question: When analyzing receivables in a previous chapter, the assertion was made that companies have vital signs that can be examined as an indication of financial well-being. These are ratios or other computed amounts considered to be of particular significance. In that earlier coverage, the age of the receivables and the receivable turnover were both calculated and explained. For inventory, do similar vital signs also exist that decision makers should study? What vital signs should be determined in connection with inventory when examining the financial health and prospects of a company?

Answer: No definitive list of ratios and relevant amounts can be identified because different people tend to have their own personal preferences. However, several figures are widely computed and discussed in connection with inventory and cost of goods sold when the financial condition of a company and the likelihood of its prosperity are being evaluated.

Gross profit percentage. The first of these is the **gross profit percentage**, which is found by dividing the **gross profit** for the period by **net sales**.

sales – sales returns and discounts = net sales
net sales – cost of goods sold = gross profit
gross profit/net sales = gross profit percentage

Previously, gross profit has also been referred to as gross margin, markup, or margin of a company. In simplest terms, it is the difference between the amount paid to buy (or manufacture) inventory and the amount received from an eventual sale. Gross profit percentage is often used to compare one company to the next or one time period to the next. If a book store manages to earn a gross profit percentage of 35 percent and another only 25 percent, questions need to be raised about the difference and which percentage is better? One company is making more profit on each sale but, possibly because of higher sales prices, it might be making significantly fewer sales.

For the year ending January 31, 2009, Macy's Inc. reported a gross profit percentage of 39.7 percent but reported net loss for the year of $4.8 billion on sales of nearly $25 billion. At the same time, Wal-Mart earned a gross profit percentage of a mere 23.7 percent but managed to generate net income of over $13 billion on sales of over $401 billion. With these companies, a clear difference in pricing strategy can be seen.

The gross profit percentage is also watched closely from one year to the next. For example, if this figure falls from 37 percent to 34 percent, analysts will be quite interested in the reason. Such changes have a cause and any individual studying the company needs to consider the possibilities.

Are costs rising more quickly than the sales price of the merchandise?

Has a change occurred in the types of inventory being sold?

Was the reduction in the gross profit offset by an increase in sales?

Barnes & Noble, for example, reports that its gross margin was 30.9 percent in 2008 and 30.4 percent in 2007. That is certainly one piece of information to be included in a detailed investigation of this company.

Number of days inventory is held. A second vital sign is the **number of days inventory is held** on the average. Companies want to turn their merchandise into cash as quickly as possible. Holding inventory can lead to several unfortunate repercussions. The longer it sits in stock the more likely the goods are to get damaged, stolen, or go out of fashion. Such losses can be avoided through quick sales. Furthermore, as long as merchandise is sitting on the shelves, it is not earning any profit for the company. Money is tied up with no return until a sale is made.

Consequently, decision makers (both internal and external to the company) watch this figure closely. A change (especially any lengthening of the time required to sell merchandise) is often a warning of problems.

The number of days inventory is held is found in two steps. First, the company needs to determine the cost of inventory that is sold each day on the average[1].

cost of goods sold/365 days = cost of inventory sold per day

Then, this daily cost figure is divided into the average amount of inventory held during the period. The average can be based on beginning and ending totals, monthly balances, or other available figures.

average inventory/cost of inventory sold per day = number of days inventory is held

For example, if a company sells inventory costing $40,000 each day and holds an average inventory of $520,000 during the period, the average item takes thirteen days ($520,000/$40,000) to be sold. Again, the significance of that figure depends on the type of inventory, a comparison to similar companies, and the change seen in recent periods of time.

Inventory turnover. A third vital sign to be presented is the **inventory turnover**, which is simply another way to measure the speed by which a company sells its inventory.

cost of goods sold/average inventory = inventory turnover

The resulting turnover figure indicates the number of times during the period that an amount equal to the average inventory was sold. The larger the turnover number, the faster inventory is selling. For example, Best Buy Co. Inc. recognized cost of goods sold for the year ending February 28, 2009, as $34,017 million. The company also reported beginning inventory for that period of $4,708 million and ending inventory of $4,753 million. Hence, the inventory turnover for this retail electronics giant was 7.23 times during that year.

($4,753 + $4,708)/2 = average inventory of $4,730.5 million
$34,017/$4,703.5 = inventory turnover of 7.23 times

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092926.html

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092927.html

Key Takeaway

Companies that apply LIFO (probably for income tax reasons) often hope decision makers will convert their numbers to

FIFO for comparison purposes. Footnote disclosure of FIFO figures can be included to make this conversion possible. In addition, analysts frequently determine several computed amounts and ratios to help illuminate what is happening inside a company. The gross profit percentage simply determines the average amount of markup on each sale. It demonstrates pricing policies and fluctuations often indicate policy changes or problems in the market. The average number of days in inventory and the inventory turnover both help decision makers know the length of time a company takes to sell its merchandise. Traditionally, a slowing down of sales is bad because inventory is more likely to be damaged, lost, or stolen. Plus, inventory generates no profit for the owner until sold.

Talking with a Real Investing Pro (Continued)

Following is a continuation of our interview with Kevin G. Burns.

Question: Companies that sell inventory instead of services must select a cost flow assumption for reporting purposes. What are your thoughts when you are analyzing two similar companies and discover that one has applied FIFO while the other uses LIFO?

Kevin Burns: Truthfully, it is easy to get distracted by issues such as FIFO and LIFO that probably make no difference in the long run. I rarely like to trade stocks quickly. For example, assume a company sells a commodity of some type (jewelry, for example). The commodity fluctuates dramatically in price so when the price is falling you have paid more for the item than the market will now pay you for the finished good. When prices are rising, you reap the benefit by selling at an even greater price than you expected. So if you have two companies dealing with the same issues and one uses LIFO and the other FIFO, the reported results could be dramatically different. However, the underlying facts do not change. Over an extended period of time, the two companies probably end up in the same position regardless of whether they apply LIFO or FIFO. I am much more interested in how they are investing their cash inflows and the quality of the management. On the other hand, a person who trades stocks quickly could well be interested in reported results that might impact stock prices for a short period of time. For example, the trader may well wish to see a company use FIFO as reported profits will be higher for the short term if there is inflation and may believe that he can capitalize on that short-term phenomenon.

Video Clip

" href="http://app.wistia.com/embed/medias/1853ec6517" class="replaced-iframe">(click to see video)

Unnamed Author talks about the five most important points in Chapter 9 “Why Does a Company Need a Cost Flow Assumption in Reporting Inventory?”.

[1]Some analysts prefer to use 360 days to make this computation simpler.

9.7 End-of-Chapter Exercises

Questions

1. Why is it unrealistic to assume that inventory costs will remain constant over time?
2. What is a cost flow assumption?
3. Briefly explain the specific identification approach.
4. Briefly explain the first-in, first-out cost flow assumption.
5. Briefly explain the last-in, first-out cost flow assumption.
6. Briefly explain the averaging cost flow assumption.
7. Which cost flow assumption will give a higher net income in a period of rising prices?
8. Why don't all companies use specific identification?
9. Which cost flow assumption appears to be used by more companies than any other?
10. What are advantages of using LIFO?
11. Why must a company keep one set of books for financial reporting purposes and another for tax compliance purposes?
12. Why do many countries not permit their companies to use LIFO?
13. Explain LIFO liquidation.
14. How can users compare companies who use different cost flow assumptions?
15. How is gross profit percentage calculated and what does it tell a user about a company?
16. How is number of days in inventory calculated and why would a user want to know this number?
17. What is inventory turnover? What does it tell a user about a company?

True or False

1. ____ Using the LIFO cost assumption will always result in a lower net income than using the FIFO cost assumption.
2. ____ The United States is the only country that allows LIFO.
3. ____ LIFO tends to provide a better match of costs and expenses than FIFO and averaging.
4. ____ Companies can use LIFO for tax purposes and FIFO for financial reporting.
5. ____ The larger the inventory turnover, the better, in most cases.
6. ____ It is impossible for decision makers to compare a company who uses LIFO with one who uses FIFO.
7. ____ A jewelry store or boat dealership would normally be able to use the specific identification method.
8. ____ The underlying concept of FIFO is that the earliest inventory purchased would be sold first.

9. ____ Gross profit percentage can help users determine how long it takes companies to sell inventory after they purchase it.
10. ____ LIFO liquidation may artificially inflate net income.

Multiple Choice

1. Which of the following provides the best matching of revenues and expenses?
    1. Specific Identification
    2. FIFO
    3. LIFO
    4. Averaging
2. Milby Corporation purchased three hats to sell during the year. The first, purchased in February, cost $5. The second, purchased in April, cost $6. The third, purchased in July, cost $8. If Milby sells two hats during the year and uses the FIFO method, what would cost of goods sold be for the year?
    1. $13
    2. $19
    3. $14
    4. $11
3. Which is **not** a reason a company would choose to use LIFO for financial reporting?
    1. The company wishes to use LIFO for tax purposes.
    2. The company wants net income to be as high as possible.
    3. The company would like to match the most current costs with revenues.
    4. LIFO best matches the physical flow of its inventory.
4. During the year, Hostel Company had net sales of $4,300,000 and cost of goods sold of $2,800,000. Beginning inventory was $230,000 and ending inventory was $390,000. Which of the following would be Hostel's inventory turnover for the year?
    1. 9.03 times
    2. 7.18 times
    3. 4.84 times
    4. 13.87 times
5. Traylor Corporation began the year with three items in beginning inventory, each costing $4. During the year Traylor purchased five more items at a cost of $5 each and two more items at a cost of $6.50 each. Traylor sold eight items for $9 each. If Traylor uses LIFO, what would be Traylor's gross profit for the year?
    1. $42
    2. $30

3. $35
4. $72

Problems

1. SuperDuper Company sells top-of-the-line skateboards. SuperDuper is concerned about maintaining high earnings and has chosen to use the periodic FIFO method of inventory costing. At the beginning of the year, SuperDuper had 5,000 skateboards in inventory, each costing $20. In April, SuperDuper purchased 2,000 skateboards at a cost of $22 and in August, purchased 4,000 more at a cost of $23. During the year, SuperDuper sold 9,000 skateboards for $40 each.
    1. Record each purchase SuperDuper made.
    2. Determine SuperDuper's cost of goods sold using FIFO.
2. Assume the same facts as problem 1 above, except that SuperDuper is more concerned with minimizing taxes and uses LIFO. Determine SuperDuper's cost of goods sold using LIFO.
3. Assume the same facts as problem 1 above, except that SuperDuper has decided to use averaging. Determine SuperDuper's cost of goods sold using averaging.
4. Using your answers to problems 1–3, determine the following:
    1. Which of the methods yields the lowest cost of goods sold for SuperDuper?
    2. Which of the methods yields the highest ending inventory for SuperDuper?
5. Ulysses Company uses LIFO costing. It reported beginning inventory of $20,000,000 and ending inventory of $24,500,000. If current costs were used to value inventory, beginning inventory would have been $23,000,000 and ending inventory would have been $26,700,000. Cost of goods sold using LIFO was $34,900,000. Determine what cost of goods sold would be if Ulysses used FIFO.
6. Paula's Parkas sells NorthPlace jackets. At the beginning of the year, Paula's had twenty jackets in stock, each costing $35 and selling for $60. The following table details the purchases and sales made during January:

    Figure 9.13

Date	Number of Items	Cost per Item
January 2	Purchased 12	$36.00
January 8	Purchased 10	36.50
January 10	Sold 15	
January 17	Sold 14	
January 22	Purchased 8	37.00
January 28	Sold 10	

    Assume that Paula's Parkas uses the perpetual FIFO method.

1. Determine Paula's Parkas cost of goods sold and ending inventory for January.
2. Determine Parka's gross profit for January.

7. Assume the same facts as in problem 6 above, but that Paula's Parkas uses the perpetual LIFO method.

    1. Determine Paula's Parkas cost of goods sold and ending inventory for January.
    2. Determine Parka's gross profit for January.

8. Assume the same facts as in problem 6 above, but that Paula's Parkas uses the moving average method.

    1. Determine Paula's Parkas cost of goods sold and ending inventory for January.
    2. Determine Parka's gross profit for January.

9. The Furn Store sells home furnishings, including bean bag chairs. Furn currently uses the periodic FIFO method of inventory costing, but is considering implementing a perpetual system. It will cost a good deal of money to start and maintain, so Furn would like to see the difference, if any, between the two and is using its bean bag chair inventory to do so. Here is the first quarter information for bean bag chairs:

    Figure 9.14

Date	**Number of Items**	**Cost per Item**
Beginning Balance:		
January 1	16	$19
January 17	Purchased 5	20
January 24	Sold 7	
February 10	Purchased 8	21
February 19	Sold 15	
March 1	Purchased 11	22
March 20	Sold 16	

    Each bean bag chair sells for $40.

    1. Determine Furn's cost of goods sold and ending inventory under periodic FIFO.
    2. Determine Furn's cost of goods sold and ending inventory under perpetual FIFO.

10. Rollrbladz Inc. is trying to decide between a periodic or perpetual LIFO system. Management would like to see the effect of each on cost of goods sold and ending inventory for the year. Below is information concerning purchases and sales of its specialty line of rollerblades:

    Figure 9.15

Date	Number of Items	Cost per Item	Sales Price
Beginning Balance:			
January 1	150	$34	
January 22	Purchased 120	35	
February 21	Sold 160		$75
April 8	Purchased 180	36	
June 10	Sold 190		80
August 19	Purchased 110	37	
September 28	Sold 50		82
October	Sold 60		82

1. Determine Rollrbladz's cost of goods sold and ending inventory under periodic LIFO.
2. Determine Rollrbladz's cost of goods sold and ending inventory under perpetual LIFO.

11. Highlander Corporation sells swords for decorative purposes. It would like to know the difference in cost of goods sold and ending inventory if it uses the weighted average method or the moving average method. Please find below information to help determine these amounts for the second quarter.

Figure 9.16

Date	Number of Items	Cost per Item
Beginning Balance:		
April 1	1,700	$70
April 13	Purchased 600	72
May 5	Sold 1,000	
May 25	Purchased 800	73
June 10	Sold 1,500	

Swords retail for $120 each.

1. Determine Highlander's cost of goods sold and ending inventory under weighted average.
2. Determine Highlander's cost of goods sold and ending inventory under moving average.

12. In Chapter 4 "How Does an Organization Accumulate and Organize the Information Necessary to Prepare Financial Statements? " and Chapter 7 "In a Set of Financial Statements, What Information Is Conveyed about Receivables?", we met Heather Miller, who started her own business, Sew Cool. The financial statements for the first year of business are shown below. To make calculations easier, assume that the business began on 1/1/08 and that the balance in the inventory account on that date was -0-.

Figure 9.17

Sew Cool
Income Statement
As of December 31, 20X8

Revenue	$4,000
Cost of Goods	(2,000)
Gross Profit	2,000
Other Expenses	(1,695)
Earning before Tax	305
Tax Expense	(107)
Net Income	$198

Figure 9.18

Sew Cool
Stmt. of Retained Earnings
As of December 31, 20X8

Retained Earnings, December 1, 20X8	$500
Net Income	198
Dividends	(158)
Retained Earnings, December 31, 20X8	$540

Figure 9.19

Sew Cool
Balance Sheet
December 31, 20X8

Assets		**Liabilities**	
Current		**Current**	
Cash	$940	Accounts Payable	$900
Accounts Receivable	500	Income Tax Payable	120
Less Allowance for Doubtful Accounts	(20)	Total Current Liabilities	$1,020
Net Accounts Receivable	480		
Inventory	700		
Total Current Assets	$2,120		
Noncurrent		**Noncurrent**	
Equipment	$1,000	Notes Payable	$1,060
		Owners' Equity	
		Capital Stock	$500
		Retained Earnings	540
		Total Owners' Equity	$1,040
Total Assets	$3,120	Total Liabilities & Owners' Equity	$3,120

Based on the financial statements determine the following:

1. Gross profit percentage
2. Number of days inventory is held
3. Inventory turnover

Comprehensive Problem

This problem will carry through several chapters, building in difficulty. It allows students to continuously practice skills and knowledge learned in previous chapters.

In Chapter 8 "How Does a Company Gather Information about Its Inventory?", you prepared Webworks statements for August. They are included here as a starting point for September.

Here are Webworks financial statements as of August 31.

Figure 9.20

Webworks Stmt. of Retained Earnings As of August 31	
Retained Earnings, August 1	$1,175
Net Income	1,615
Retained Earnings, August 31	$2,790

Figure 9.21

Webworks Balance Sheet August 31			
Assets		**Liabilities**	
Current		**Current**	
Cash	$6,445	Accounts Payable	$2,690
Accounts Receivable	1,250	Salaries Payable	250
Less Allowance for Doubtful Accounts	(125)	Unearned Revenue	100
Net Accounts Receivable	1,125		
Merchandise Inventory	3,000		
Supplies Inventory	60		
Prepaid Rent	200		
Total Current Assets	$10,830	Total Current Liabilities	$3,040
Noncurrent		**Noncurrent**	
Equipment	$7,000	Notes Payable	$10,000
		Owners' Equity	
		Capital Stock	$2,000
		Retained Earnings	2,790
		Total Owners' Equity	$4,790
Total Assets	$17,830	Total Liabilities & Owners' Equity	$17,830

The following events occur during September:

a. Webworks purchases supplies worth $120 on account.

b. At the beginning of September, Webworks had 19 keyboards costing $100 each and 110 flash drives costing $10 each. Webworks has decided to use periodic FIFO to cost its inventory.

c. On account, Webworks purchases thirty keyboards for $105 each and fifty flash drives for $11 each.

d. Webworks starts and completes five more Web sites and bills clients for $3,000.

e. Webworks pays Nancy $500 for her work during the first three weeks of September.

f. Webworks sells 40 keyboards for $6,000 and 120 flash drives for $2,400 cash.

g. Webworks collects $2,500 in accounts receivable.

h. Webworks pays off its salaries payable from August.

i. Webworks pays off $5,500 of its accounts payable.

j. Webworks pays off $5,000 of its outstanding note payable.

k. Webworks pays Leon salary of $2,000.

l. Webworks pays taxes of $795 in cash.

Required:

A. Prepare journal entries for the above events.

B. Post the journal entries to T-accounts.

C. Prepare an unadjusted trial balance for Webworks for September.

D. Prepare adjusting entries for the following and post them to your T-accounts.

m. Webworks owes Nancy $300 for her work during the last week of September.

n. Leon's parents let him know that Webworks owes $275 toward the electricity bill. Webworks will pay them in October.

o. Webworks determines that it has $70 worth of supplies remaining at the end of September.

p. Prepaid rent should be adjusted for September's portion.

q. Webworks is continuing to accrue bad debts so that the allowance for doubtful accounts is 10 percent of accounts receivable.

r. Record cost of goods sold.

E. Prepare an adjusted trial balance.

F. Prepare financial statements for September.

Chapter 10: In a Set of Financial Statements, What Information Is Conveyed about Property and Equipment?

Video Clip

(click to see video)

Joe introduces Chapter 10 "In a Set of Financial Statements, What Information Is Conveyed about Property and Equipment?" and speaks about the course in general.

10.7 End-of-Chapter Exercises

Questions

1. At what value is property, plant, and equipment (PP&E) typically reported on the balance sheet?
2. What is accumulated depreciation?
3. What type of account is accumulated depreciation?
4. Define "book value."
5. Why is property and equipment not reported at its fair value?
6. Why is land not depreciated?
7. Why would land be classified as an investment rather than PP&E?
8. How does a company determine the historical cost of a property and equipment?
9. Define "useful life."
10. Define "residual value."
11. Which method of depreciation allocates an equal amount to each period the asset is used?
12. How does a company determine the gain or loss on the sale of PP&E?
13. What is the half-year convention?
14. What is accelerated depreciation and how is its use justified?
15. How does the units-of-production method differ from straight-line?
16. What is depletion?
17. What is a basket purchase?
18. How are the values attributed to the different assets determined in a basket purchase?
19. When should a subsequent expenditure associated with currently owned property and equipment be capitalized?
20. What are land improvements?
21. How is an impairment loss on PP&E determined?
22. When can a company capitalize interest?

True or False

1. ____ Almost all property, plant, and equipment (PP&E) is depreciated, which means that its cost is spread over its useful life.
2. ____ PP&E is a long-term asset.
3. ____ If PP&E is found to be permanently impaired, a loss must be recorded.

4. ____ If an expenditure increases the useful life of an asset, it should be capitalized, not expensed.
5. ____ It does not matter how a company divides a basket purchase since all the assets will be depreciated anyway.
6. ____ Companies are allowed to capitalize interest while they are constructing an asset because the asset is not available to generate revenues yet.
7. ____ The only acceptable method of depreciation is straight-line.
8. ____ Accumulated depreciation is a contra-asset account.
9. ____ The purchase price of an asset is capitalized, but costs like transportation and set up of the asset should be expensed as incurred.
10. ____ Both assets used to generate revenue from operations and assets held as investment property are reported as PP&E on the balance sheet.

Multiple Choice

1. On January 1, the Rhode Island Redbirds organization purchased new workout equipment for its athletes. The equipment had a cost of $15,600, transportation costs of $450, and set up costs of $290. The Redbirds spent $350 training their trainers and athletes on its proper use. The useful life of the equipment is five years and has no residual value. How much depreciation expense should the Redbirds take in the first year, if straight-line is being used?
    1. $3,120
    2. $3,268
    3. $3,338
    4. $3,210
2. See the information in number 1 above. Assume the Redbirds decide to use the double-declining balance depreciation method instead. What would Year 1 depreciation expense be?
    1. $6,420
    2. $6,676
    3. $6,240
    4. $6,536
3. Kite Corporation wishes to trade equipment it owns for a vehicle owned by the Runner Corporation. Kite's equipment has a book value of $4,000 and a fair value of $4,500. Runner's vehicle has a book value and fair value of $5,100. Kite agrees to pay Runner $600 in cash in addition to giving up the equipment. What would be Kite's gain or loss on this exchange?
    1. $500
    2. $100
    3. $1,100
    4. $600

4. At the beginning of the year, the Kelvin Company owned equipment that appeared on its balance sheet as such:

Equipment	$7,000,000
Accumulated Depreciation	($2,000,000)

The equipment was purchased two years ago and assigned a useful life of six years and a salvage value of $1,000,000. During the first month of the year, Kelvin made modifications to the equipment that increased its remaining useful life from four years to five years. Its salvage value remained unchanged. The cost of these modifications was $50,000. What would be the balance in the accumulated depreciation account of this equipment on 12/31 of that year?

    1. $2,760,000
    2. $3,000,000
    3. $810,000
    4. $2,000,000

5. On January 3, 20X1, Jewels Inc. purchases a South American mine found to be rich in amethyst for $560,000. Once all the amethyst has been removed, the land is estimated to be worth only $100,000. Experts predict that the mine contains 4,000 pounds of amethyst. Jewels plans on completing the extraction process in four years. No amethyst was extracted during 20X1. What would accumulated depletion be on 12/31/X1?

    1. $115,000
    2. $115
    3. $140
    4. $0

6. Maxwell Corporation wishes to sell a building it has owned for five years. It was purchased for $430,000. Maxwell performed additional modifications to the building, which totaled $45,000. On the proposed date of sale, the accumulated depreciation on the building totaled $75,000. The proposed sales price of the building is $380,000. Maxwell is trying to determine the income statement effect of this transaction. What would be Maxwell's gain or loss on this sale?

    1. $20,000 loss
    2. $25,000 gain
    3. $50,000 loss
    4. $95,000 loss

Problems

1. Springfield Corporation purchases a new machine on March 3, 20X4 for $35,600 in cash. It pays an additional $3,400 to transport and set up the machine. Springfield's accountant determines that the equipment has no residual value and that the useful life is five years. It is expected to generate 2,400,000 units during its life. Assume Springfield employs the half-year convention.

    1. Record the purchase of the machine.
    2. Assume that Springfield uses the straight-line method of depreciation. Record depreciation expense for the first two years of the machine's life.
    3. Assume that Springfield uses the double-declining balance method of depreciation. Record depreciation expense for the first two years of the machine's life.
    4. Assume that Springfield uses the units-of-production method of depreciation. During Year 1, the machine produces 600,000 units. During Year 2, the machine produces 578,000 units. Record depreciation expense for the first two years of the machine's life.

2. Gameplay Company operates in mall locations and sells videogame equipment and games. The company purchased furniture and fixtures to use in one of its stores for $440,000 in January of 20X5. The furniture and fixtures were being depreciated using the straight-line method over ten years with a residual value of $10,000. In December 20X9, Gameplay decided to close the location and entered into an exchange agreement with Allero Corporation. Allero agreed to give Gameplay vehicles with a fair value of $200,000 and cash of $50,000 in exchange for the furniture and fixtures from this store. The furniture and fixtures have an estimated fair value of $250,000 on the date of exchange.

    1. Make the depreciation entry for the furniture and fixtures that would be necessary in December 20X9, assuming that no entries have been made during the year.
    2. Determine the book value of the furniture and fixtures on the date of exchange.
    3. Record the journal entry Gameplay would make for this exchange.
    4. Where would Gameplay report the gain or loss you determined in part c. above?

3. Fairfield Inc. invested in a plant to manufacture j phones, thinking these would be the next "big thing" and compete with the current maker of the iPhone. Unfortunately, things did not work out so well for the j phone. Complete the following steps to determine if Fairfield will need to record an impairment loss in the current period.

    1. Fairfield purchased the plant on March 1, 20X2, for $46,790,000. Additional costs to get it up and running were $3,780,000. Fairfield assigned a thirty-year useful life and residual value of $4,000,000 and used double-declining balance to depreciate the plant. Record the acquisition of the plant and depreciation for three years, assuming that Fairfield does not use the half-year convention.
    2. On December 31, 20X4, Fairfield's auditors raise concerns that the plant's market value might be below its book value due to the failure of the j phone. They believe this decline is permanent and decide to test for impairment. The accountants and auditors agree that the plant will generate net cash flows of approximately $2,000,000 each year for the next fifteen years. Perform a test of recoverability on the plant.
    3. Assume that you determined that the plant's future cash flows were below its book value. The company must now perform the fair value test. Several appraisers are called in, and the average fair value they give the plant is $15,600,000. Determine if Fairfield must record an impairment loss and, if so, make the journal entry to do so.

4. Janus Corporation was unable to find a store suitable for its business, so it decided to build one. It was able to secure debt financing from the Southeast Bank in the amount of $4,000,000 at an interest rate of 5 percent. During 20X8, Janus spent $2,500,000 on construction, but did not complete the building. Janus continued work on the building into 20X9, eventually completing it on July 1 at a total cost of $3,800,000. Janus does not use the half-year convention.

    1. Determine the amount at which Janus should record the building, including any applicable capitalized interest.

2. If Janus expects the building to be in use for twenty years with negligible residual value, what would depreciation expense be in 20X9?

5. Markov Corporation owns forests that are harvested and sold to papermaking companies. Markov purchases a new tract of forest on January 1, 20X6, for $360,000. Its experts estimate that 4,000 tons of wood can be harvested from the forest and sold. After that, the land will be worth about $20,000 (of course, Markov could replant trees, changing this value, but for ease of calculations, we'll assume no replanting).

    1. In 20X6, 2,500 tons of wood are harvested and 2,200 are sold for $120 per ton. Make any necessary journal entries.
    2. In 20X7, the remaining 1,500 tons are harvested and 1,800 tons are sold for $120 per ton. Make any necessary journal entries.
    3. Determine the balance in land account at the end of 20X7. Does this make sense to you? Why?

6. On April 1, 20X1, Chang and Chang Inc. invested in a new machine to manufacture soccer balls. The machine is expected to manufacture 1,400,000 balls over its life of three years and then it will be scrapped. The machine cost $50,000 including normal and necessary costs of setting it up. Chang will use units-of-production to depreciate the machine.

    1. Record depreciation for 20X1 and 20X2 assuming that 450,000 balls were manufactured and sold in 20X1 and 600,000 were manufactured and sold in 20X2.
    2. On January 1, 20X3, Chang decides to get out of the soccer ball business, and sells the machine for $15,000. Record this journal entry.

7. On June 30, Partyplace, a popular spot for receptions and other events, purchased a used limousine and used Hummer from a car dealership as a basket purchase. They received a good deal because they bought the vehicles together, paying only $75,000 for both. The market values were $45,000 for the limo and $40,000 for the Hummer.

    1. Record the purchase of the vehicles.
    2. During the year, Partyplace performed maintenance on the vehicles like oil changes that amounted to $600. Record this.
    3. During the year, Partyplace made some modifications to the limo that should make it more appealing to its customers, thus, in effect, increasing its productivity as it relates to the business. These modifications cost $4,000. Record this.

Comprehensive Problem

This problem will carry through several chapters, building in difficulty. It allows students to continuously practice skills and knowledge learned in previous chapters.

In Chapter 9 "Why Does a Company Need a Cost Flow Assumption in Reporting Inventory?", you prepared Webworks statements for September. They are included here as a starting point for October.

Here are Webworks financial statements as of September 30.

Figure 10.20

Webworks
Income Statement
As of September 30

Revenue	$11,400
Cost of Goods Sold	(5,315)
Gross Profit	6,085
Other Expenses	(3,435)
Earning before Tax	2,650
Tax Expense	(795)
Net Income	$1,855

Figure 10.21

Webworks
Stmt. of Retained Earnings
As of September 30

Retained Earnings, September 1	$2,790
Net Income	1,855
Retained Earnings, September 30	$4,645

Figure 10.22

Webworks
Balance Sheet
September 30

Assets		**Liabilities**	
Current		**Current**	
Cash	$3,300	Accounts Payable	$1,285
Accounts Receivable	1,750	Salaries Payable	300
Less Allowance for Doubtful Accounts	(175)	Unearned Revenue	100
Net Accounts Receivable	1,575		
Merchandise Inventory	1,385		
Supplies Inventory	70		
Total Current Assets	$6,330	Total Current Liabilities	$1,685
Noncurrent		**Noncurrent**	
Equipment	$7,000	Notes Payable	$5,000
		Owners' Equity	
		Capital Stock	$2,000
		Retained Earnings	4,645
		Total Owners' Equity	$6,645
Total Assets	$13,330	Total Liabilities & Owners' Equity	$13,330

The following events occur during October:

a. Webworks purchases supplies worth $100 on account.

b. Webworks paid $600 in rent for October, November, and December.

c. At the beginning of October, Webworks had nine keyboards costing $105 each and forty flash drives costing $11 each. Webworks uses periodic FIFO to cost its inventory.

d. On account, Webworks purchases fifty keyboards for $110 each and 100 flash drives for $12 each.

e. Webworks starts and completes seven more Web sites and bills clients for $3,900.

f. Webworks pays Nancy $700 for her work during the first three weeks of October.

g. Webworks sells 50 keyboards for $7,500 and 100 flash drives for $2,200 cash.

h. The Web site paid for in August and started in September was completed. The client had originally paid $100 in advance.

i. Webworks paid off the remainder of its note payable.

j. Webworks collects $4,000 in accounts receivable.

k. Webworks pays off its salaries payable from October.

l. Webworks pays off $6,000 of its accounts payable.

m. One Web site client is dissatisfied with the work done and refuses to pay his bill. Rather than incur the expense of taking the client to court, Webworks writes off the account in the amount of $200.

n. Webworks pays Leon a salary of $2,000.

o. Webworks purchased office furniture on account for $1,000, including transportation and setup.

p. Webworks pays taxes of $868 in cash.

Required:

A. Prepare journal entries for the above events.

B. Post the journal entries to T-accounts.

C. Prepare an unadjusted trial balance for Webworks for October.

D. Prepare adjusting entries for the following and post them to your T-accounts.

q. Webworks owes Nancy $100 for her work during the last week of October.

r. Leon's parents let him know that Webworks owes $300 toward the electricity bill. Webworks will pay them in November.

s. Webworks determines that it has $50 worth of supplies remaining at the end of October.

t. Prepaid rent should be adjusted for October's portion.

u. Webworks is continuing to accrue bad debts at 10 percent of accounts receivable.

v. A CPA tells Leon that Webworks should be depreciating its equipment and furniture. The CPA recommends that Webworks use the straight-line method with a four-year life for the equipment and a five-year life for the furniture. Normally, when an error is made, such as not depreciating equipment, the company must go back and restate prior financial statements correctly. Since Webworks is only generating these monthly statements for internal information, the CPA recommends that Leon just "catch up" the prior month's depreciation on the equipment this month. So when Webworks records October's equipment depreciation, it will also record the deprecation that should have been taken in July, August and September. The depreciation on the furniture should just be for one month. Round to the nearest whole number.

w. Record cost of goods sold.

E. Prepare an adjusted trial balance.

F. Prepare financial statements for October.

10.1 The Reporting of Property and Equipment

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Recognize that tangible operating assets with lives of over one year (such as property and equipment) are initially reported at historical cost.
2. Understand the rationale for assigning the cost of these operating assets to expense over time if the item has a finite life.
3. Recognize that these assets are reported on the balance sheet at book value, which is cost less accumulated depreciation.
4. Explain the reason for not reporting property and equipment at fair value except in specified circumstances.

Question: Wal-Mart Stores Inc. owns thousands of huge retail outlets and supercenters located throughout the United States and many foreign countries. These facilities contain a wide variety of machinery, fixtures and the like such as cash registers and shelving. On its January 31, 2009, balance sheet, Wal-Mart reports "property and equipment, net" of nearly $93 billion, a figure that made up almost 60 percent of the company's total assets. This monetary amount was more than twice as large as any other asset reported by this company. Based on sheer size, the information conveyed about this group of accounts is extremely significant to any decision maker analyzing Wal-Mart or other similar companies. In creating financial statements, what is the underlying meaning of the figure reported for property, equipment, and the like? What information is conveyed by the nearly $93 billion balance disclosed by Wal-Mart?

Answer: According to U.S. GAAP, the starting basis for the monetary figure to be reported by a company for property, equipment, and other tangible operating assets with a life of over one year (as with inventory and several other assets) is historical cost. The amount sacrificed to obtain land, machinery, buildings, furniture, and so forth can be objectively determined based on an arm's length transaction. A willing buyer and a willing seller, both acting in their own self-interests, agreed on this exchange price as being satisfactory.

Thus, the cost incurred to obtain property and equipment provides vital information about management policy and decision making. It also serves as the initial figure appearing on the balance sheet for any item classified in this manner. The buyer has voluntarily chosen to relinquish the specified amount of resources to gain the asset. After the date of acquisition, the reported balance will probably never again reflect fair value.

Subsequently, for any of these operating assets that has a finite life (and most assets other than land do have finite lives), the matching principle necessitates that the historical cost be allocated to expense over the anticipated years of service. This expense is recognized systematically each period as the company utilizes the asset to generate revenue. Expenses are matched with revenues. For example, if equipment is used for ten years, all (or most) of its cost is assigned to expense over that period. This accounting is very similar to the handling of prepaid expenses such as rent as discussed in an earlier chapter. Cost is first recorded as an asset and then moved to expense over time in some logical fashion. At any point, the reported asset is the original cost less the portion of that amount that has been reclassified to expense. That is the most likely meaning of the $93 billion figure reported by Wal-Mart.

Question: The basic accounting for property and equipment certainly resembles that utilized for prepaid expenses such as rent and insurance. Do any significant differences exist between the method of reporting prepaid expenses and the handling of operating assets like machinery?

Answer: One important mechanical distinction does exist when comparing the accounting for prepayments and that used for property and equipment having a finite life. With a prepaid expense (such as rent), the asset is directly reduced over time as the cost is assigned to expense. Prepaid rent balances get smaller each day as the period of usage passes.

In reporting property and equipment, the asset does not physically shrink. As the utility is consumed over time, buildings and equipment do not get smaller; they only get older. To reflect that reality, a separate **accumulated depreciation** account[1] is created to measure the total amount of the asset's cost that has been expensed to date. Through this approach, information about the original cost continues to be available. For example, if equipment is reported as $30,000 and the related accumulated depreciation currently holds a balance of $10,000, the reader knows that the asset originally cost $30,000 but $10,000 of that amount has been moved to expense since the date of acquisition.

For reporting purposes, accumulated depreciation is subtracted from the historical cost of the asset to arrive at the net figure to be shown on the balance sheet. The remaining cost-based amount is often referred to as the net **book value** of the asset. If cost is $30,000 and accumulated depreciation is $10,000, net book value of $20,000 appears in the financial statements. The nearly $93 billion net figure reported by Wal-Mart is the cost of its property and equipment that has not yet been assigned to expense. It is the **historical cost** of those assets (approximately $126 billion) less accumulated depreciation (almost $33 billion—the amount of the cost already recorded as an expense).

Four accounts make up the property and equipment reported by Wal-Mart:

- Land
- Buildings and improvements
- Fixtures and equipment
- Transportation equipment

These are common titles but a variety of other names are also used to report similar asset groups. Examples include property, plant and equipment (abbreviated as PP&E), fixed assets, and plant assets. Regardless of the name that is applied, cost is reported initially and then depreciated unless—like land—the asset has an infinite life.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092935.html

Question: Wal-Mart reports property and equipment with a book value of $93 billion. However, that figure has virtually nothing to do with the value of these assets. They might actually be worth hundreds of billions. Decision makers analyze financial statements in order to make decisions about an organization at the current moment. Are these decision makers not more interested in the fair value of these assets than in what remains of historical cost? Why are property and equipment not reported at fair value?
Is fair value not a much more useful piece of information than cost minus accumulated depreciation when assessing the financial health and prospects of a business?

Answer: The debate among accountants, company officials, investors, creditors, and others over whether various assets should be reported based on historical cost or fair value has raged for decades. There is no easy resolution. Good points can be made on each side of the argument. As financial accounting has evolved, rules for reporting certain assets (such as many types of stock and debt investments where exact market prices can be readily determined) have been changed to abandon historical cost in favor of reflecting fair value. However, no such radical changes in U.S. GAAP have taken place for property and equipment. Reporting has remained relatively unchanged for many decades. Unless the value of one of these assets has been impaired or it is going to be sold in the near future, historical cost remains the basis for balance sheet presentation.

The fair value of property and equipment is a reporting alternative preferred by some decision makers, but only if the amount is objective and reliable. That is where the difficulty begins. Historical cost is both an objective and a reliable measure, determined by a willing buyer and a willing seller. In contrast, any gathering of "experts" could assess the value of a large building or an acre of land at widely differing figures with equal certitude. No definitive value can possibly exist until sold. What is the informational benefit of a number that is so subjective? Additionally, the asset's value might change radically on a daily basis rendering previous assessments useless. For that reason, historical cost, as adjusted for accumulated **depreciation**, remains the accepted method for reporting property and equipment on an organization's balance sheet.

This use of historical cost is supported by the going concern assumption that has long existed as part of the foundation for financial accounting. In simple terms, a long life is anticipated for virtually all organizations. Officials expect operations to continue for the years required to fulfill the goals that provide the basis for their decisions. They do not plan to sell property and equipment prematurely but rather to utilize these assets for their entire lives. Consequently, financial statements are constructed assuming the organization will function until all of its assets are consumed. Unless impaired or a sale is anticipated in the near future, the fair value of property and equipment is not truly of significance to the operations of a business. It might be interesting information but it is not actually of much importance if no sale is contemplated.

However, the estimated fair value of a company's property and equipment is a factor that does influence the current price of any ownership shares traded actively on a stock exchange. For example, the price of shares of The Coca-Cola Company is certainly impacted by the perceived value of the company's property and equipment. A widely discussed concept known as "**market capitalization**" is one method used to gauge the fair value of a business as a whole. Market capitalization is computed by multiplying the current price of a company's stock times the number of ownership shares that are outstanding. For example, approximately 2.3 billion shares of The Coca-Cola Company were in the hands of investors at December 31, 2008. Because the stock was selling for $45.27 per share on that day, the company's market capitalization was over $104 billion. This figure does not provide a direct valuation for any specific asset but it does give a general idea as to whether fair value approximates book value or is radically different.

Talking with an Independent Auditor about International Financial Reporting Standards (Continued)

Following is a continuation of our interview with Robert A. Vallejo, partner with the accounting firm PricewaterhouseCoopers.

Question: In U.S. GAAP, land, buildings, and equipment have traditionally been reported at historical cost less the accumulated depreciation recognized to date. Adjustment to fair value is prohibited unless the asset's value has been impaired. Because of the conservative nature of accounting, increases in value are ignored completely until proven through a disposal. Thus, land might be worth $20 million but only shown on the balance sheet as $400,000 if that amount reflects cost. According to IFRS, can increases in the fair value of these assets be reported?

Rob Vallejo: Under IFRS, a company can elect to account for all or specific types of assets using fair value. In that instance, the designated assets are valued each reporting period and written up or down accordingly. Based on my experience working abroad and from speaking with my colleagues in Europe, few companies appear to elect to account for fixed assets using fair value. I am guessing that this decision is because of the administrative challenges of determining fair value and the earnings volatility that would be created by such a policy. Reported net income could bob up and down erratically as fair values fluctuated. Company officials rarely like to see such swings. However, in the right circumstances, using fair value might be a reasonable decision for some companies.

Key Takeaways

Land, buildings, and equipment are reported on a company's balance sheet at net book value, which is cost less any of that figure that has been assigned to expense. Over time, the expensed amount is maintained in a contra asset account known as accumulated depreciation. Thus, the asset's cost remains readily apparent as well as the net book value. Land and any other asset that does not have a finite life remain at cost. Unless the value of specific items has been impaired or an asset is to be sold in the near future, fair value is not used for reporting land, buildings, and equipment. It is not viewed as an objective or reliable amount. In addition, because the asset is not expected to be sold, fair value is of limited informational use to decision makers.

[1]As discussed in connection with accounts receivable and the allowance for doubtful accounts, an account that appears with another but as a direct reduction is known as a contra account. Accumulated depreciation is a contra account that decreases the reported cost of property and equipment to reflect the portion of that cost that has now be assigned to expense.

10.2 Determining Historical Cost and Depreciation Expense

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Determine the guiding accounting rule that helps ascertain which costs are capitalized in connection with property and equipment and which are expensed.
2. List the variables that impact the amount of depreciation to be expensed each period.
3. Recognize that the straight-line method predominates in practice but any system that provides a rational approach can be used to create a pattern for depreciation.

Question: Businesses hold numerous types of assets, such as receivables, inventory, cash, investments, and patents. Proper classification is important for the clarity of the reported information. What requirements must be met for an asset to be classified as part of a business's property and equipment?

Answer: To be included within the property and equipment category, an asset must first have tangible physical substance and be expected to be used for longer than a single year. Furthermore, it must serve to generate revenues within the normal operating activities of the business. It cannot be held for immediate resale, like inventory.

A building used as a warehouse and machinery operated in the production of inventory both meet these characteristics. Other examples include computers, furniture, fixtures, and equipment. Conversely, land acquired as a future plant site and a building held for speculative purposes are both classified with investments (or, possibly, "other assets") on the owner's balance sheet rather than as property and equipment. Neither is used at the current time to help generate operating revenues.

Question: The basis for reporting property and equipment is historical cost. What amounts are included in determining the cost of such assets? Assume, for example, that Wal-Mart purchases a parcel of land and then constructs one of its retail stores on the site. Wal-Mart also buys a new cash register to use at this outlet. Initially, such assets are reported at cost. For property and equipment, how is historical cost defined?

Answer: In the previous chapter, the cost of a company's inventory was identified as the sum of all normal and necessary amounts paid to get the merchandise into condition and position to be sold. Property and equipment is not bought for resale so this rule cannot be followed here without some modification. Instead, all expenditures are included within the cost of property and equipment if the amounts are normal and necessary to get the asset into condition and position to assist the company in earning revenues. That is their purpose: to generate profits by helping to create the sale of goods and services.

Land can serve as an example. When purchased, the various normal and necessary expenditures made by the owner to ready the property for its intended use are capitalized to arrive at the cost to be reported. These amounts include payments made to attain ownership as well as any fees required to obtain legal title. If the land is acquired as a building site, money spent for any needed grading and clearing is also included as a cost of the land rather than as a cost of the building or as an expense. These activities readied the land for its ultimate use.

Buildings, machinery, furniture, equipment and the like are all reported in a similar fashion. For example, the cost of constructing a retail store includes money spent for materials and labor as well as charges for permits and the fees charged by architects and engineers. These are normal and necessary to get the structure into condition and position to help generate revenues.

As another example, the cost of a new cash register might well include shipping charges, installation fees, and training sessions to teach employees to use the asset. These costs all meet the criterion for capitalization. They appear to be normal and necessary to permit use of the asset for its intended purpose. Hence, a new cash register bought for $4,100 might actually be reported as an asset by its owner at $5,300 as follows:

Figure 10.1 Capitalized Cost of Equipment

Invoice Price—Charged by Seller	$4,100
Shipping Costs from Manufacturer	300
Installation	400
Employee Training Sessions	500
Cost of Cash Register	$5,300

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092929.html

Question: If a company pays $600,000 on January 1, Year One to rent a building to serve as a store for five years, a prepaid rent account (an asset) is established for that amount. Because the rented facility will be used to generate revenues throughout this period, a portion of the cost is reclassified annually as an expense to comply with the matching principle. At the end of Year One, $120,000 (or one-fifth) of the cost is moved from the asset balance into rent expense by means of an adjusting entry. As a result, the prepaid rent on the balance sheet drops to $480,000, the amount paid for the four remaining years.

If, instead, the company buys a building with an expected five-year life[1] *for $600,000, the accounting is quite similar. The initial cost is capitalized to reflect the future economic benefit. Once again, an expense is then recorded at the end of Year One for a portion of this cost to satisfy the matching principle. This expense is referred to as depreciation. Should the Year One depreciation recognized in connection*

with this acquired building also be $120,000?
How is the annual amount of depreciation expense determined for reporting purposes?

Answer: The specific amount of depreciation expense recorded each year for buildings, machinery, furniture, and the like is based on four variables:

1. The historical cost of the asset
2. Its expected useful life
3. Any anticipated residual (or salvage) value
4. An allocation pattern

After total cost is computed, officials estimate the useful life based on company experience with similar assets in the past or other sources of information such as guidelines provided by the manufacturer[2]. In a similar fashion, officials arrive at an expected residual value—an estimate of the likely worth of the asset at the end of its useful life to the company. Because both life expectancy and residual value are no more than guesses, depreciation is simply a mechanically derived pattern that allocates the asset's cost to expense over its expected years of use.

To illustrate, assume a building is purchased by a company on January 1, Year One, for cash of $600,000. Based on experience with similar assets, officials believe that this structure will be worth only $30,000 at the end of an expected five-year life. U.S. GAAP does not require any specific computational method for determining the annual allocation of the asset's cost to expense. Over fifty years ago, the Committee on Accounting Procedure (the authoritative body at the time) issued Accounting Research Bulletin 43 which stated that any method could be used to determine annual depreciation if done in a "systematic and rational manner." This guidance remains in effect today.

Consequently, a vast majority of reporting companies (including Wal-Mart) have chosen to adopt the straight-line method to assign the cost of property and equipment to expense over their useful lives. The estimated residual value is subtracted from cost to arrive at the asset's depreciable base. This figure is then expensed evenly over the expected life. It is systematic and rational: **Straight-line depreciation** allocates an equal expense to each period in which the asset is used to generate revenue.

Straight-line method:

(cost – estimated residual value) = depreciable base
depreciable base/expected useful life = annual depreciation
($600,000 – $30,000) = $570,000/5 years = depreciation expense of $114,000 per year

Question: *After depreciation has been calculated for the current period, how is this allocation of the asset's cost to expense recorded within the company's accounting system?*

Answer: An adjusting entry is prepared at the end of each period to move the assigned cost from the asset account on the balance sheet to expense on the income statement. To reiterate, the building account is not directly reduced. A separate negative or contra account (accumulated depreciation) is created to reflect the total amount of the cost that has been expensed to date. Thus, the asset's present book value as well as its original historical cost are both still in evidence.

The entries to record the cost of acquiring this building and the annual depreciation expense over the five-year life are as follows. The straight-line method is used here to determine the individual allocations to expense. Now that students should be familiar with using debits and credits for recording, the number in parenthesis is included (where relevant to the discussion) to indicate the total account balance *after* the entry is posted. As indicated in an earlier chapter, revenues, expenses, and dividends are closed out each year. Thus, the depreciation expense reported on each income statement measures only the expense assigned to that period.

Figure 10.2 Building Acquisition and Straight-Line Depreciation

1/1/1	Building	$600,000 ($600,000)	
	Cash		$600,000
12/31/1	Depreciation Expense	114,000 (114,000)	
	Accumulated Depreciation —Building		114,000 (114,000)
12/31/2	Depreciation Expense	114,000 (114,000)	
	Accumulated Depreciation —Building		114,000 (228,000)
12/31/3	Depreciation Expense	114,000 (114,000)	
	Accumulated Depreciation —Building		114,000 (342,000)
12/31/4	Depreciation Expense	114,000 (114,000)	
	Accumulated Depreciation —Building		114,000 (456,000)
12/31/5	Depreciation Expense	114,000 (114,000)	
	Accumulated Depreciation —Building		114,000 (570,000)

Because the straight-line method is applied, depreciation expense is a consistent $114,000 each year. As a result, the net book value reported on the balance sheet drops during the asset's useful life from $600,000 to $30,000. At the end of the first year, it is $486,000 ($600,000 cost minus accumulated depreciation $114,000). At the end of the second year, net book value has been reduced to $372,000 ($600,000 cost minus accumulated depreciation of $228,000). This pattern continues over the entire five years.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092906.html

Key Takeaways

Tangible operating assets with lives of over a year are initially reported at historical cost. All expenditures are capitalized if they are normal and necessary to put the property into the position and condition to assist the company in generating revenue. If the asset has a finite life, this cost is then assigned to expense over the years of expected use in some systematic and rational pattern. Many companies apply the straight-line method, which assigns an equal amount to every full year. In that approach, the expected residual value is subtracted from cost to get the depreciable base that is allocated evenly over the anticipated years of use by the company.

[1]The estimated lives of property and equipment varies widely. For example, in notes to its financial statements as of January 31, 2009, and for the year then ended, Wal-Mart disclosed that the expected lives of its buildings and improvements ranged from five years to fifty.

[2]As mentioned previously, land does not have a finite life and is, therefore, not subjected to the recording of depreciation expense.

10.3 Recording Depreciation Expense for a Partial Year

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Understand the need to record depreciation for the current period prior to the disposal of property or equipment.
2. Construct the journal entry to record the disposal of property or equipment and the recognition of a gain or loss.
3. Explain the half-year convention and the reason that it is frequently used by companies for reporting purposes.

Question: Property and equipment are occasionally sold before the end of their estimated lives. A company's operational needs might change or officials could want the benefit of a newer or more efficient model. What accounting is necessary in the event that a piece of property or equipment is sold prior to the conclusion of its useful life? In the above example, assume that after the adjusting entry for depreciation is made on December 31, Year Two, the building is sold for $290,000 cash. How is that transaction recorded?

Answer: Accounting for the disposal of property and equipment is relatively straightforward.

First, to establish account balances that are appropriate at the date of sale, depreciation is recorded for the period of use during the current year. In this way, the expense is matched with any revenues earned in the current period.

Second, the amount received from the sale is recorded while the book value of the asset (both its cost and accumulated depreciation) is removed. If the owner receives less for the asset than this book value, a loss is recognized for the difference, which decreases reported net income. If more is received than book value, the excess is recorded as a gain so that net income increases.

Because the above building is sold for $290,000 on December 31, Year Two, when the book value is $372,000 (cost of $600,000 less accumulated depreciation of $228,000), a loss of $82,000 is reported by the seller ($372,000 book value less $290,000 proceeds). The following entry is recorded after the depreciation adjustment for the period is made.

Figure 10.3 Sale of Building at a Loss

12/31/2	Cash	290,000	
	Accumulated Depreciation—Building	228,000	
	Loss on Sale of Building	82,000	
	Building		600,000

Conversely, if this building is sold on that date for $440,000 rather than $290,000, the company receives $68,000 more than book value ($440,000 less $372,000) so that a gain of that amount is recognized.

Figure 10.4 Sale of Building at a Gain

12/31/2	Cash	440,000	
	Accumulated Depreciation—Building	228,000	
	Building		600,000
	Gain on Sale of Building		68,000

Although gains and losses appear on the income statement, they are often shown separately from revenues and expenses. In that way, a decision maker can determine both the income derived from primary operations (revenues less expenses) and the amount that resulted from tangential activities such as the sale of a building or other property (gains less losses).

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092937.html

Question: In the reporting above, the building was bought on January 1 and sold on December 31 so that depreciation was always determined and recorded for a full year. What amount of depreciation is appropriate if property or equipment is held for less than twelve months during a year? Virtually all such assets are bought or sold during the year so that a partial year is appropriate.

Answer: The recording of depreciation follows the matching principle. If an asset is owned for less than a full year, it does not help generate revenues for all twelve months. The amount of expense should be reduced accordingly. For example, if the above building is purchased on April 1, Year One, depreciation expense of only $85,500 (9/12 of the full-year amount of $114,000) is recognized on December 31, Year One. Similarly, if an asset is sold on a day other than December 31, less than a full year's depreciation is assigned to the year of sale. Once again, revenue is not generated for the entire period; depreciation expense must also be recognized proportionally.

To illustrate, assume the above building was purchased on April 1 of Year One for $600,000 and then sold for $350,000 on September 1 of Year Three. As calculated above, depreciation for Year One is $85,500. Depreciation for the final eight months that it was used in Year Three is $76,000 (8/12 of $114,000). The following journal entries reduce the asset's book value to $324,500 (cost of $600,000 less accumulated depreciation of $275,500). Cash of $350,000 is collected from the sale. Thus, a gain of $25,500 is recognized ($350,000 less $324,500).

Figure 10.5 Acquisition, Depreciation, and Sale of Building

4/1/1	Building	$600,000 ($600,000)	
	Cash		$600,000
12/31/1	Depreciation Expense	85,500 ($85,500)	
	Accumulated Depreciation —Building		85,500 (85,500)
12/31/2	Depreciation Expense	114,000 ($114,000)	
	Accumulated Depreciation —Building		114,000 (199,500)
9/1/3	Depreciation Expense	76,000 ($76,000)	
	Accumulated Depreciation —Building		76,000 (275,500)
9/1/3	Cash	350,000	
	Accumulated Depreciation —Building	275,500	
	Building		600,000
	Gain on Sale of Building		25,500

Question: Monitoring the specific days on which depreciable assets are bought and sold seems like a tedious process. Do companies use a simpler method for assigning depreciation when a piece of property or equipment is held for less than a full year?

Answer: Most companies hold many depreciable assets, often thousands. Depreciation is nothing more than a mechanical cost allocation process. It is not an attempt to mirror current value. Consequently, company officials often prefer not to invest the time and effort needed to keep track of the specific number of days or weeks of an asset's use during the years of purchase and sale. As a result, depreciation is often calculated to the nearest month when one of these transactions is made. A full month of expense is recorded if an asset is held for fifteen days or more whereas no depreciation is recognized in a month where usage is less than fifteen days. No genuine informational value comes from monitoring the depreciation of assets down to days, hours, and minutes. An automobile acquired on March 19, for example, is depreciated as if bought on April 1. A computer sold on November 11 is assumed to have been used until October 31.

As another accepted alternative, many companies apply the **half-year convention** (or some variation). When property or equipment is owned for any period less than a full year, a half year of depreciation is automatically assumed. Maintenance of exact records is not necessary. Long-lived assets are typically bought and sold at various times throughout each period so that, on the average, one-half year is a reasonable assumption. As long as such approaches are applied consistently, reported figures are viewed as fairly presented. Property and equipment bought on February 3 or sold on November 27 is depreciated for exactly one-half year in both situations.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092938.html

Key Takeaways

Depreciation expense is recorded for property and equipment at the end of each fiscal year and also at the time of an asset's disposal. To record a disposal, cost and accumulated depreciation are removed. Any proceeds are recorded and the difference between the amount received and the book value is recognized as a gain (if more than book value is collected) or a loss (if less is collected). Many companies automatically record depreciation for one-half year for any period of less than a full year. The process is much simpler and, as a mechanical allocation process, no need for absolute precision is warranted.

10.4 Alternative Depreciation Patterns and the Recording of a Wasting Asset

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Explain the justification for accelerated methods of depreciation.
2. Compute depreciation expense using the double-declining balance method.
3. Realize that the overall impact on net income is not affected by a particular cost allocation pattern.
4. Describe the units-of-production method, including its advantages and disadvantages.
5. Compute depletion expense for a wasting asset such as an oil well or a forest of trees.
6. Explain the reason that depletion amounts are not directly recorded as an expense.

Question: Straight-line depreciation certainly qualifies as systematic and rational. The same amount of cost is assigned to expense during each period of use. Because no specific method is required by U.S. GAAP, do companies ever use alternative approaches to create other allocation patterns for depreciation? If so, how are these additional methods justified?

Answer: The most common alternative to the straight-line method is **accelerated depreciation**, which records a larger expense in the initial years of an asset's service. The primary rationale for this pattern is that property and equipment often produce higher revenues earlier in their lives because they are newer. The matching principle would suggest that recognizing more depreciation in these periods is appropriate to better align the expense with the revenues earned.

A second justification for accelerated depreciation is that some types of property and equipment lose value more quickly in their first few years than they do in later years. Automobiles and other vehicles are a typical example of this pattern. Recording a greater expense initially is said to better reflect reality.

Over the decades, a number of equations have been invented to mathematically create an accelerated depreciation pattern, high expense at first with subsequent cost allocations falling throughout the life of the property. The most common is the **double-declining balance method (DDB)**. When using DDB, annual depreciation is determined by multiplying the book value of the asset times two divided by the expected years of life. As book value drops, annual expense drops. This formula has no internal logic except that it creates the desired pattern, an expense that is higher in the first years of operation and less after that. Although residual value is not utilized in this computation, the final amount of depreciation recognized must be manipulated to arrive at this proper ending balance.

Depreciation for the building bought above for \$600,000 with an expected five-year life and a residual value of \$30,000 is calculated as follows if DDB is applied.

(cost – accumulated depreciation) × 2/expected life = depreciation expense for period

Year One:

(\$600,000 – \$0) = \$600,000 × 2/5 = \$240,000 depreciation expense

Year Two:

(\$600,000 – \$240,000) = \$360,000 × 2/5 = \$144,000 depreciation expense

Year Three:

(\$600,000 – \$384,000) = \$216,000 × 2/5 = \$86,400 depreciation expense

Year Four:

(\$600,000 – \$470,400) = \$129,600 × 2/5 = \$51,840 depreciation expense

Year Five:

(\$600,000 – \$522,240) = \$77,760,

so depreciation for Year Five must be set at \$47,760 to arrive at the expected residual value of \$30,000. This final expense is always the amount needed to arrive at the expected residual value.

Note that the desired expense pattern has resulted. The expense starts at \$240,000 and becomes smaller in each subsequent period.

Figure 10.6 Building Acquisition and Double-Declining Balance Depreciation

1/1/1	Building	$600,000	($600,000)		
	Cash			$600,000	
12/31/1	Depreciation Expense	240,000	(240,000)		
	Accumulated Depreciation —Building			240,000	(240,000)
12/31/2	Depreciation Expense	144,000	(144,000)		
	Accumulated Depreciation —Building			144,000	(384,000)
12/31/3	Depreciation Expense	86,400	(86,400)		
	Accumulated Depreciation —Building			86,400	(470,400)
12/31/4	Depreciation Expense	51,840	(51,840)		
	Accumulated Depreciation —Building			51,840	(522,240)
12/31/5	Depreciation Expense	47,760	(47,760)		
	Accumulated Depreciation —Building			47,760	(570,000)

When using accelerated depreciation, book value falls quickly at first because of the high initial expense levels. Thus, if the asset is sold early in its life, a reported gain is more likely. For example, in the earlier example where straight-line depreciation was applied, the building was sold after two years for $290,000 creating an $82,000 loss because the book value was $372,000. The book value was high in comparison to the amount received.

With DDB, if the same building had been sold on December 31, Year Two for $290,000, a $74,000 gain results because book value has dropped all the way to $216,000 ($600,000 cost less $384,000 accumulated depreciation). Accelerated depreciation creates a lower book value, especially in the early years of ownership.

Figure 10.7 Building Sold after Two Years

12/31/2	Cash	290,000	
	Accumulated Depreciation—Building	384,000	
	Building		600,000
	Gain on Sale of Building		74,000

Although the annual amounts are quite different, the overall net income is never affected by the allocation pattern in use. In this example, a building was bought for $600,000 and later sold after two years for $290,000. Thus, net income for the entire period of use must be reduced by the $310,000 difference regardless of the approach applied.

Figure 10.8 Depreciation Methods—Overall Impact on Net Income

	Straight-Line Method	Double-Declining Balance Method
Year One Depreciation Expense	($114,000)	($240,000)
Year Two Depreciation Expense	(114,000)	(144,000)
Loss on Sale for $290,000	(82,000)	
Gain on Sale for $290,000		+74,000
Overall Impact on Net Income	($310,000)	($310,000)

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092939.html

Question: The two methods demonstrated here for establishing a depreciation pattern are based on time, five years to be precise. In most cases, though, it is the physical use of the asset rather than the passage of time that is actually relevant to this process. Use is the action that generates revenues. How is the depreciation of a long-lived tangible asset determined if usage can be measured? For example, assume that a limousine company buys a new vehicle for $90,000 to serve as an addition to its fleet. Company officials expect this limousine to be driven for three hundred thousand miles and then have no residual value. How is depreciation expense determined each period?

Answer: Depreciation does not have to be based on time; it only has to be computed in a systematic and rational manner. Thus, the **units-of-production method (UOP)** is another alternative that is occasionally encountered. UOP is justified because the periodic expense is matched with the work actually performed. In this illustration, the limousine's depreciation can be computed using the number of miles driven in a year, an easy figure to determine.

($90,000 less $0)/300,000 miles = $0.30 per mile

Depreciation is recorded at a rate of $0.30 per mile. The depreciable cost basis is allocated evenly over the miles that the vehicle is expected to be driven. UOP is a straight-line method but one that is based on usage (miles driven, in this example) rather than years. Because of the direct connection between the expense allocation and the work performed, UOP is a very appealing approach. It truly mirrors the matching principle. Unfortunately, measuring the physical use of most assets is rarely as easy as with a limousine.

For example, if this vehicle is driven 80,000 miles in Year One, 120,000 miles in Year Two, and 100,000 miles in Year Three, depreciation will be $24,000, $36,000, and $30,000 when the $0.30 per mile rate is applied.

Figure 10.9 Depreciation—Units-of-Production Method

1/1/1	Vehicle	$90,000 ($90,000)	
	Cash		$90,000
12/31/1	Depreciation Expense	24,000 (24,000)	
	Accumulated Depreciation —Vehicle		24,000 (24,000)
12/31/2	Depreciation Expense	36,000 (36,000)	
	Accumulated Depreciation —Vehicle		36,000 (60,000)
12/31/3	Depreciation Expense	30,000 (30,000)	
	Accumulated Depreciation —Vehicle		30,000 (90,000)

Estimations rarely prove to be precise reflections of reality. This vehicle will not likely be driven exactly three hundred thousand miles. If used for less and then retired, both the cost and accumulated depreciation are removed. A loss is recorded equal to the remaining book value unless some cash or other asset is received. If driven more than the anticipated number of miles, depreciation stops at three hundred thousand miles. At that point, the cost of the asset will have been depreciated completely.

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092930.html

Question: The cost of land is not depreciated because it does not have a finite life. However, land is often acquired solely for the natural resources that it might contain such as oil, timber, gold or the like. As the oil is pumped, the timber harvested or the gold extracted, a portion of the value is physically separated from the land. How is the reported cost of land affected when its natural resources are removed?

Answer: Oil, timber, gold and the like are "wasting assets." They are taken from land over time, a process known as **depletion**. Value is literally removed from the asset rather than being consumed through use as with the depreciation of property and equipment. The same mechanical calculation demonstrated above for the units-of-production (UOP) method is applied. The 2008 financial statements for Massey Energy state that "depletion of mining properties owned in fee and leased mineral rights is computed using the units-of-production method over the estimated proven and probable reserve tons."

Because the value is separated rather than used up, depletion initially leads to the recording of inventory (such as oil or gold, for example). An expense is recognized only at the eventual point of sale.

As with other types of property and equipment, historical cost is the sum of all normal and necessary expenditures to get the wasting asset into condition and position to generate revenues. To illustrate, assume that at the beginning of Year One, land is acquired for $1.6 million cash while another $400,000 is spent to construct a mining operation. Total cost is $2 million. The land is estimated to hold ten thousand tons of ore to be mined and sold. The land will be worth an estimated amount of only $100,000 after all the ore is removed. Depletion is calculated as $190 per ton ([$2,000,000 cost less $100,000 residual value]/10,000 tons). It is a straight-line approach based on units held, an allocation that follows the procedures of the units-of-production method.

Assume that 3,000 tons of ore are extracted in Year One and sold in Year Two for $1 million cash. Another 3,600 tons are removed in the second year for sale at a later time. Depletion is $570,000 in Year One ($190 × 3,000 tons) and $684,000 in Year Two ($190 × 3,600 tons).

Figure 10.10 Depletion of Wasting Asset

1/1/1	Land with Mineral Rights	$1,600,000	
	Cash		$1,600,000
1/1/1	Land with Mineral Rights	400,000 (2,000,000)	
	Cash		400,000
12/31/1	Inventory of Ore	570,000	
	Accumulated Depletion		570,000 (570,000)
Year Two	Cash	1,000,000	
	Revenue from Sale of Ore		1,000,000
	Cost of Goods Sold	570,000	
	Inventory of Ore		570,000
12/31/2	Inventory	684,000	
	Accumulated Depletion		684,000 (1,254,000)

For depreciation, expense is recognized immediately as the asset's utility is consumed. With depletion, no expense is recorded until the inventory is eventually sold.

After two years, this land is reported on the company's balance sheet at a net book value of $746,000 based on its historical cost of $2 million. The inventory of ore is reported as an asset at $684,000 until sold.

Figure 10.11 Book Value of Land with Mineral Rights

Land with Mineral Rights	$2,000,000
Less: Accumulated Depletion	1,254,000
Net Book Value	$746,000

Exercise

Link to multiple-choice question for practice purposes: http://www.quia.com/quiz/2092931.html

Key Takeaway

Cost allocation patterns for determining depreciation exist beyond just the straight-line method. Accelerated depreciation records more expense in the earlier years of use than in later periods. This pattern is sometimes considered a better matching of expenses with revenues and a closer image of reality. The double-declining balance method is the most common version of accelerated depreciation. Its formula was derived to create the appropriate allocation pattern. The units-of-production method is often used for property and equipment where the quantity of work performed can be easily monitored. This approach is also used in recording the depletion of wasting assets such as oil wells and silver mines.