*Chapter 3*

# An Introduction to Financial Reporting

Accounting is a formal system of record keeping and reporting that should be designed to be useful in making economic decisions for a business organization. An individual could operate a small business with a minimum of record keeping. The information required to operate the business can be observed and recalled as needed. Formal records would improve the quality of the information available to the owner, but the owner may be able to make reasonably good decisions on the basis of less precise information.

With increases in the size and complexity of a business organization, the need for organized quantitative information also increases. The manager of a large business organization with far-flung plants, a diversified product line, and thousands of employees cannot depend on firsthand observation in managing the organization's affairs. Adequate records must be kept. These records help managers at various levels and locations to make and evaluate decisions that meet the organization's policy objectives.

In most large business organizations, ownership and management functions are separated. This separation makes it necessary for the managers to communicate the economic progress of the organization to its owners. For example, although the shareholders are the owners of a corporation, they do not know how well the corporation is performing unless management provides information to them. The responsibility of reporting the results of management's administration of the organization's resources to the owners is referred to as the **stewardship function of accounting**.

A second important function of accounting is to present useful information for making managerial decisions. Accounting reports should reflect the effectiveness and efficiency with which the resources have been used by the firm. They should also reflect how well the complex objectives of an organization are met. One goal of a business organization is to use the resources profitably in the interests of its

owners. Accounting information is widely used by investors to determine the merits of investment opportunities.

In summary, accounting is concerned with presenting information useful for making managerial and investment decisions. Accounting information can help managers make decisions about the day-to-day operations of the company. Accounting information can also help keep investors informed about a business organization's financial progress.

## Financial Statements

One focus of accounting is on *financial information* that is measured in dollars or other currency units. Accounting cannot provide all the information that is required or useful for every decision. However, it can provide a profile of two basic financial aspects or dimensions of a business organization:

*Financial position*: the current financial strength of the organization at a particular point in time as indicated by the resources it owns and the obligations it owes;

*Operating results*: the results of an organization's operations — whether it earned or lost resources from operations — over a specific period of time.

These results are presented in formal documents called **financial statements**. The financial statement that provides information about a business organization's financial position is called a **balance sheet**. The primary financial statement that provides information about a business organization's operating results is called an **income statement**.

### *Uses of Financial Statements*

Knowing about the financial position of a business organization and the results of its operations can be important to a wide range of interested parties. *Managers* are likely to make day-to-day operating decisions affecting the organization. They must know the impact of their decisions on the organization's financial well-being. *Taxing authorities* need to know whether income-based taxes are properly calculated.

In large corporations, the **shareholders**, who are the owners of the corporation, are dependent on published financial statements to provide the information they require for decisions. Shareholders may elect a board of directors, which is responsible for guiding the management of a corporation. However, the principal decisions made by shareholders are whether to hold their stock, sell it, or

purchase additional shares. It is important for financial statements to provide the informational requirements of shareholders and other purchasers of securities.

**Creditors** are other individuals or organizations to whom a business organization owes money. Creditors are also interested in the financial position and operating results of a business organization. Direct lenders, such as banks, can insist on receiving whatever financial information they require to support their decisions. However, large corporations do much of their borrowing through the issuance of financial securities sold to the public. Purchasers of these securities are dependent on financial statements to provide the information they require for their decisions.

## Accounting Professions

A **private accountant** may be employed by the organization to prepare the records and reports. A **public accountant** is an independent professional engaged by an organization to verify the accuracy and acceptability of the organization's reports. Independent professional accountants who have been certified to practice by their states are known as **Certified Public Accountants (CPAs)**.

The uses of accounting information go beyond business enterprises. Accountants are useful in providing financial information about governments, hospitals, schools, churches, etc. Virtually any kind of organization that engages in economic activity maintains accounting records and provides accounting reports.

## The Discipline of Accounting

**Accounting** is a term used to describe a wide range of techniques and fields of study. We will broadly define it as *the identifying, measuring, recording, and communicating of financial information associated with economic events*. The tasks of accountants cover diverse areas, such as measuring economic changes and conditions, recording financial transactions, reporting the results of financial transactions, preparing reports for government agencies (including the income tax return), and establishing systems for record keeping and reporting. Many of the things that accountants do are dictated by the rules of government. An example is preparing income tax returns. However, accountants primarily present information for use by decision makers.

### *The Accounting Process*

Accountants observe or are informed of some *economic event*. An example would be the purchase of equipment. Accountants then determine if the event qualifies for

*accounting treatment*. If it does qualify, they must measure the economic changes that took place. Then, an *accounting entry* that updates the set of records to reflect this event is composed. Once the new information is reported, it may be the basis for a decision that sets off a new set of economic changes.

Accountants must know what information decision makers need. Also, they must be able to measure the events and their effects on the economic position of the organization. These requirements imply that accountants must be knowledgeable in finance and managerial economics. In addition, the accounting reports become the basis for decisions and judgments of individuals and groups.

## *Financial and Managerial Accounting*

The terms *financial accounting* and *managerial accounting* reflect different uses of accounting information. **Financial accounting** pertains to the financial statements prepared for and used by individuals internal or external to the business organization. These individuals may not be actively engaged in or responsible for the day-to-day operations of the organization, but they do have an interest in knowing about its economic progress. **Managerial accounting** pertains to the financial statements that are used by management for making economic decisions within the business organization.

Basically, this book is concerned with financial accounting and financial decision making.

## *Income Taxes and Financial Accounting*

The taxation of income by the federal government and various state governments has had an impact on the record-keeping process. Taxes are based on a figure that is defined to be taxable income. The rules and regulations pertaining to taxable income are not necessarily designed to reflect the economic progress of a business organization, but to reflect the public policy objectives of Congress and other governmental bodies. As a result, there are many instances in which the income tax treatment of an event or transaction differs from its financial accounting treatment.

Management strategy must take into account the tax consequences of any decision. Some accountants believe that financial accounting procedures should be forced to coincide with the income tax requirements. But there is no reason to believe that the treatment prescribed by income tax requirements would be the same as the treatment suggested by a desire to measure and record economic events in a reasonable manner.

## Business Organizations

Among business organizations, there are three basic forms of organization: the *individual proprietorship*, the *partnership*, and the *corporation*. Most small retail establishments, farms, and professional practices (such as law, medicine, and accounting) are organized as individual proprietorships or partnerships. The distinction between a partnership and an individual proprietorship is based on the number of individuals involved in the ownership of the organization. An **individual proprietorship** has only one owner, whereas a **partnership** has more than one owner.

In terms of economic importance, the **corporation** is the primary form of business organization. The advantages of the corporate form include limited liability for the stockholders, continuity of existence, and relative ease of raising large sums of money and transferring ownership rights. As a result, practically all large businesses are organized as corporations. This book will focus on the accounting problems of corporations, but virtually all of the accounting principles applicable to corporations also apply to other types of business organizations. The specialized details of accounting for proprietorships and partnerships are outside the scope of this book.

## Assets, Liabilities, and Stock Equities

The financial position of a corporation can be described at any point in time in terms of the amount of resources it owns and the claims or interests of various parties in those resources. The resources owned by a company are called *assets*, and the interests of various claimants in the assets are called *liabilities and stock equities*.

## The Accounting Equation

The total of resources (assets) owned by a corporation must always be equal to the sources of those resources. We can also state that the total sources of assets (equities) must be equal to the total assets. The relationship of assets and sources may be expressed in the form of an equation:

$$\text{Assets} = \text{Liabilities} + \text{Stockholders' Equity}. \tag{3.1}$$

The balance sheet of a corporation shows measures of the assets of the corporation, the debts owed, and the interests of the owners. The interests of owners,

termed *stockholders' equity*, together with the debts owed (*liabilities*) constitute the total asset sources of the corporation.

The interests of the owners (stockholders' equity) may also be described as being equal to the difference between the total assets and the total liabilities. This manner of viewing the basic components of the balance sheet results in the equation:

$$\text{Assets} - \text{Liabilities} = \text{Stockholders' Equity}. \tag{3.2}$$

These relationships are, in fact, identities — that is, the equalities hold for all values of assets and equities for all corporations at all times. We have, therefore, one basic accounting identity (or accounting equation) and two variations of it:

$$\text{Assets} = \text{Liabilities} + \text{Stockholders' Equity} \tag{3.1}$$

$$\text{Assets} - \text{Liabilities} = \text{Stockholders' Equity}. \tag{3.2}$$

Each change in total assets must be accompanied by an equal change in the sources. For example, if the stockholders of a corporation invest \$8,000, the total assets of the corporation are increased by \$8,000, as are the claims of the stockholders. If a corporation borrows \$3,000 from a financial institution, the total assets would be increased by \$3,000. The source of the asset is the financial institution from whom the amount was borrowed. We could also say that the rights of this financial institution represent a \$3,000 liability. Assets are increased by \$3,000, and liabilities are increased by the same amount. This equality of assets and sources can never be upset, except by making an error.

## Form of the Balance Sheet

The balance sheet reports the dollar amounts of assets and equities of the corporation as recorded in the accounting records. There are several variations in the form of the balance sheet, but it is most often presented as a balanced array, with assets on the left side and sources on the right. This is a convention that has been adopted by accountants to facilitate understanding. In some countries, the order of presentation is reversed with no loss of information.

### *Example*

A corporation has cash of \$5,000, owns merchandise that cost \$6,000, and owes \$3,000. The stockholders originally invested \$8,000 in the corporation. The balance

sheet in its simplest form would appear as follows:

**Company X**
**Balance Sheet as of December 31, 20XX**

| Assets | | Liabilities and Stockholders' Equity | |
|---|---|---|---|
| Cash | $ 5,000 | Liabilities | $ 3,000 |
| Merchandise | 6,000 | Stockholders' Equity | 8,000 |
| Total Assets | $11,000 | Total Equities | $11,000 |

The balance sheet has a heading containing three items: the name of the company, the name of the report, and the date for which this statement is applicable. Note that this statement is "as of December 31, 20XX." The statement is for a particular moment in time, namely the close of business on the date indicated. A balance sheet may be prepared as of any date, so specifying the date is important.

Notice that the body of the statement has two main sections, the Assets and the Liabilities and Stockholders Equity. Because the total assets must equal the total sources, the stockholders' equity value of $8,000 could have been computed by subtracting the total liabilities from the total assets: $\$11{,}000 - \$3{,}000 = \$8{,}000$. However, in actual accounting practice, the stockholders' equity is not computed in this manner but rather is obtained directly from the accounting records, as will be seen in a later section. The equality definition acts as a check rather than as a means of obtaining the amount of stockholder equity.

## Accounting for Assets

The term **asset** may have differing connotations depending on whether it is being used by an economist or an accountant. We will define the term as used in accounting practice as follows: *Assets are the resources of a business organization that were acquired in a market transaction and that will provide future economic benefits to the organization.* Examples of accounting assets are:

**Nonphysical resources**: cash, marketable securities, accounts receivable.
**Physical resources**: land, buildings, equipment, merchandise.
**Intangible resources**: patents, goodwill, copyrights, trademarks.
**Cost factors applicable to future periods**: rent and insurance premiums paid in advance for the following year.

### *Economic and Accounting Assets*

It is important to understand the distinction between assets that are recorded and those that are not. The definition of assets above reflects two criteria: they (1) were

acquired in a market transaction, and (2) will provide future economic benefits to the corporation.

Accountants typically rely heavily on a clearly defined market transaction as the basis for recording assets. The market price reflected in a transaction between two independent parties provides objective evidence of the cost of assets acquired or the market value of assets sold.

It is useful for accountants to rely on objective evidence of economic value other than a long-ago actual market transaction. In the past, accountants have chosen to rely on actual market transactions. This reliance tended to bring about uniformity in how assets are recorded, but resulted in less useful information in those situations where a purchase cost may bear little relation to the economic value of the asset acquired. For example, the costs of drilling an oil well are not related to the value of the well as measured by the amount of oil in it. Recording the costs of drilling the well is less useful than recording the economic value of the oil. Similarly, the cost of Manhattan may have been $24, but its current economic value far exceeds $24.

Requiring actual market transactions also results in some assets not being recorded. Items such as copyrights and trademarks are usually recorded as assets only if they have been purchased by a corporation for a specific price. When such items have been created or invented by the corporation, they were historically not recorded as assets, regardless of their economic value to the corporation. Similarly, high-quality employees of a corporation may have a large economic value, but accountants typically do not record such a value. For example, accountants for a professional football team might record the multimillion-dollar cost of a star quarterback obtained from another team as an asset, but an equally fine quarterback obtained without explicit cost (except for a year's wages) from a college campus would not appear in the accounting records as an asset.

Economic assets provide future economic benefits to the corporation. All accounting assets are economic assets, but not all economic assets are accounting assets. Accounting assets are a subset of economic assets. Unless an item has future economic benefits to the corporation, it is not an economic asset and thus not an accounting asset. An item (e.g., an employee) can have future economic benefits to the corporation and therefore be an economic asset, but it is not recorded as an accounting asset if it was not acquired in a market transaction.

At the time an asset is acquired, an attempt will be made to record its economic value as reflected by the amount actually paid for the asset. However, this amount may not adequately measure the asset's economic value to the purchaser but rather the minimum value, and this fact must be kept in mind when making decisions using recorded amounts. With the passage of time, there is little chance that the

amount paid to acquire an asset will be an exact estimate of its economic value, and so the accountant must consider using fair value.

### *Financial Accounting Standards No. 157*

This standard is dated September 2006 and is titled "Fair Value Measurements." It is an extensive study of fair value and its uses. "This statement defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements" (paragraph 1).

It recognizes that there are "practicability exceptions to fair value measurements … " (paragraph 2b). But fair value, in general, is the basic method of measuring assets and liabilities. The definition of fair value is: "Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date" (paragraph 5).

The *Standard* as published by the FASB is 145 pages long plus a five-page summary. It is an important accounting document since it defines the use of fair value as the basis of accounting measurements replacing the nearly universal cost-based accounting rule.

## *Current and Noncurrent Assets*

The asset section of the balance sheet is normally divided into two basic components: *current assets* and *noncurrent assets*. **Current assets** are cash and those other assets that will normally be converted into cash within a period of one year (or one operating cycle, if it is longer than a year). **Noncurrent assets** are those assets that are not likely to be converted into cash in the normal operating cycle.

Current assets include items such as cash on hand or in the bank; amounts due from customers (accounts receivable); materials, supplies, or goods on hand (inventories); readily marketable securities that are expected to be sold within one year; and advance payments for insurance, rent, and the like (prepaid items).

The listing of prepaid items as a current asset is justified if the advance payment will be used during the next operating period. If the prepayment is for a period longer than a year, only the portion applicable to the next year would be included as a current asset. When items are prepaid, they reduce the outlay of cash that might otherwise be required in future years.

Noncurrent assets are also referred to as **fixed assets** or **long-lived assets**. This category includes such items as land, buildings, and equipment. These items are normally expected to last more than one year and cannot be sold (converted into cash) without disrupting the normal business operations.

The distinction between current and noncurrent assets is made on the basis of intention or normal expectation rather than the ability to convert to cash. Thus, inventories of materials are classified as current because they would normally be disposed of within one year. A building that might be disposed of is just as easily treated as noncurrent if it would not be sold within a year of a normal business cycle.

Identical assets may be classified differently when it is clear that they are being held for different purposes. Automobiles used in a business that are expected to be used for several years would be classified as a noncurrent asset. Similar automobiles held for sale by a dealer or manufacturer would be considered current assets (inventories).

Marketable securities are securities held for temporary purposes for which there is a ready market. These are considered to be a current asset, as it is normally expected that they will be sold within one year. If similar securities were being held for control purposes and therefore not likely to be sold, they would be referred to as investments and classified as a noncurrent asset. An asset held as a noncurrent investment becomes a current marketable security when the corporation intends to dispose of its holding in the next year.

Inconsistencies occasionally arise in the classification between current and noncurrent assets. For example, buildings and equipment are not usually reclassified even when it becomes clear that they will be disposed of within a year. Slow-moving inventory items are not reclassified as noncurrent even when it is likely to take more than a year to dispose of them. These inconsistencies have one desirable effect in that they give stability to the classification procedure. It would be troublesome if assets were continually reclassified according to changes in the stated intentions of management.

### *Tangible and Intangible Assets*

A distinction is often made between *tangible* and *intangible* assets. This distinction is based on the usual physical characteristics of the items. Buildings, equipment, and merchandise are considered to be **tangible assets** because these items have physical substance. Patents, trademarks, and copyrights are considered to be **intangible assets** because they do not possess physical substance (they may be represented by pieces of paper).

## Accounting for Liabilities and Stock Equity

The sources section of the balance sheet has two main sections and several subsections. The basic division is between *liabilities* and *stockholders' equity*.

**Liabilities** are the obligations of the organization. The terms of these obligations are generally fixed by legal contract and have definite due dates. **Stockholders' equity** refers to the ownership interest in a corporation. The amount of the stockholders' interests is not fixed by contract, and does not have due dates.

The liability section can be further divided on the basis of due dates between *current liabilities* and *noncurrent liabilities*. The distinction is essentially the same as that applied to assets: **current liabilities** are those obligations that are to be paid within one year, whereas **noncurrent (or long-term) liabilities** are those coming due in more than one year. This distinction is important, because the solvency of an organization rests on its ability to meet payment obligations when due.

Current liabilities usually include amounts owed to trade creditors (accounts payable), workers (wages payable), government (taxes payable), investors (interest or dividends payable), and customers (advances from customers). All of these items are current liabilities if they are due within a year (or within the operating cycle of the organization).

Noncurrent liabilities often include bonds, mortgages, and notes. If part of these items is due within 12 months, that amount should be classified as a current liability. It is the due date, not the title, that determines whether an obligation is classified as current or noncurrent.

In some cases, the exact amount to be paid is not known. For example, a corporation can estimate its income tax liability and show it as such on a balance sheet, even though the amount is not certain and will not be certain until detailed computations are made (and reviewed by the Internal Revenue Service). Although the amount must be estimated, an obligation to pay on or before a specific date exists, and the expected liability should be recognized by the accountant.

The stockholders' equity section of the balance sheet may be divided into the amount originally paid to a corporation by stockholders, often referred to as *common stock* or *capital received from stockholders*, and the amount retained from past earnings, often referred to as *retained earnings*. There are also several variations of titles and different classifications that are used in practice. These will be discussed in later chapters.

The common stockholders are the residual owners. The economic value of these interests varies, depending on the fortunes of the corporation. The earnings of the corporation accrue to this ownership group, but, unlike debt-like obligations, the corporation is not considered insolvent if it fails to make payments to these investors.

An ownership interest of some type and amount must exist as long as the corporation exists. If the corporation is liquidated, the stockholders are entitled to

the resources remaining after all other claims have been satisfied. Their amount may be more or less than the accounting measures of these interests.

The earnings of the corporation may be either retained by the corporation or distributed to stockholders. These distributions normally take the form of cash payments that are called **dividends** or **share repurchases**. Barring complexities, the retained earnings balance is equal to the sum of the past earnings of the corporation reduced by any distributions to shareholders that have been made. A negative balance in retained earnings is referred to as a **deficit**. This occurs when the corporation sustains cumulative losses in its operations or has made larger cash distributions than it has earned.

The classification of accounts is based on the legal nature of the item and not on the nature of the individuals holding the claim. Thus, if a dividend of a definite amount has been declared payable as of a definite date, the obligation to pay the dividend is a liability of the corporation. Even though the sum is payable only to stockholders, it would be considered a liability of the corporation and not a part of stockholders' equity.

## Sample Balance Sheet

The first balance sheet illustrated below is not complete in all details, but it does show a basic arrangement. More detailed balance sheets are found in practice, but the basic format is not changed.

Note that the current assets are listed in order of liquidity, or how close they are to being cash. The most liquid assets are listed first. The fixed assets are listed with the longest-lived assets presented first. That is, land is followed by buildings and equipment. There is no order specified for current liabilities. In preparing a balance sheet, the arrangement of the items and the appearance of the statement are important. The reader will expect to find items in specific locations. The person preparing the report should either conform to current practice or warn the reader of differences in presentation.

The balance sheet may be prepared in **vertical form** as shown here, with assets on top and equities on the bottom, or it is prepared as a **balanced array**, with assets on the left and liabilities and stockholders' equities on the right. Either form is acceptable, as well as several other variations of these basic arrangements.

For example, another method of presentation is the **step format**, in which current liabilities are subtracted from current asset balances to obtain net current assets. This form has the advantage of highlighting the relationship of the current assets to the current liabilities and of showing the difference between the two. It has the disadvantage of not explicitly showing the total assets or total liabilities.

These totals can be derived from the balance sheet regardless of the format, but they are more difficult to find when the step presentation is used. An example of a balance sheet using this format is also shown below.

**Sample Company**

**Balance Sheet as of December 31, 20XX**

**Assets**

| | | | |
|---|---|---|---|
| **Current Assets** | | | |
| Cash on Hand | | $ 2,000 | |
| Cash in Bank | | 30,000 | |
| Marketable Securities | | 8,000 | |
| Accounts Receivable | | 60,000 | |
| Inventories | | 50,000 | |
| Prepaid Expenses | | 2,000 | |
| **Total Current Assets** | | | $152,000 |
| **Long-Lived Assets** | | | |
| Land | | $ 15,000 | |
| Buildings | | 53,000 | |
| Equipment | | 60,000 | |
| **Total Long-Lived Assets** | | | 128,000 |
| **Total Assets** | | | $280,000 |

**Liabilities and Stockholders' Equity**

| | | | |
|---|---|---|---|
| **Current Liabilities** | | | |
| Accounts Payable | $30,000 | | |
| Taxes Payable | 70,000 | | |
| **Total Current Liabilities** | | $100,000 | |
| **Long-Term Liabilities** | | | |
| Bonds Payable | | 80,000 | |
| **Total Liabilities** | | | $180,000 |
| **Stockholders' Equity** | | | |
| Common Stock | | $ 90,000 | |
| Retained Earnings | | 10,000 | |
| **Total Stockholders' Equity** | | | 100,000 |
| **Total Liabilities and Stockholders' Equity** | | | $280,000 |

**Sample Company**
**Balance Sheet as of December 31, 20XX**

| | |
|---|---|
| **Current Assets** | |
| Cash on Hand | $ 2,000 |
| Cash in Bank | 30,000 |
| Marketable Securities | 8,000 |
| Accounts Receivable | 60,000 |
| Inventories | 50,000 |
| Prepaid Expenses | 2,000 |
| | $152,000 |
| **Deduct: Current Liabilities** | |
| Accounts Payable | $ 30,000 |
| Taxes Payable | 70,000 |
| | $100,000 |
| **Net Current Assets** | $ 52,000 |
| **Noncurrent Assets** | |
| Land | $ 15,000 |
| Buildings | 53,000 |
| Equipment | 60,000 |
| **Total Assets less Current Liabilities** | $180,000 |
| **Deduct: Long-Term Debt** | |
| Bonds Payable | $ 80,000 |
| **Net Assets** | $100,000 |
| **Ownership** | |
| Common Stock | $ 90,000 |
| Retained Earnings | 10,000 |
| | $100,000 |

## Managerial Uses of the Balance Sheet

The primary function of a balance sheet is to indicate the financial position of an organization. The statement may provide useful information in determining the degree of financial risk. For example, a bank considering a short-term loan to a corporation would want to know the financial position of the business organization as of the date of the loan (or as close to that date as possible). Its primary internal

use is as a means of measuring the soundness of the financial position of the organization.

By looking at an organization's balance sheets for successive periods, managers can observe changes in specific items. If the direction and amount of the change are undesirable, managers may be able to take action to correct the situation. For example, an increase in accounts receivable (the amounts owed by the customers to the company) may indicate inefficiency in the operation of the collection department. Although individual items such as accounts receivable will be the subject of separate reports, it is helpful to have all assets displayed in one report so that the various items may be readily compared with each other.

Balance sheets prepared for management should be designed especially for the requirements of the executives who are using them. Executives have no need for statements showing pennies; in fact, very large organizations round off balances to the nearest hundred thousand or million dollars. Reports may also be simplified by combining similar items. Thus, the single title Prepaid Expenses may include prepaid rent, insurance, and taxes. The aim of these simplifications is to save time when executives review the statement and avoid overwhelming them with too extensive an array of numbers.

In using a balance sheet for managerial purposes, it is important to keep in mind that this statement is not prepared primarily for the use of managers. Traditional financial statements intended to serve the public at large may not be optimal for managerial decision making. This means that a conventional balance sheet may have to be adjusted or modified to increase its helpfulness to management for use by a financial analyst (or a potential investor).

## Nature of Accounts

A separate **account** is maintained for each item in the balance sheet. Transactions may be recorded by entering the amount by which each item is affected into the respective account.

## T-Accounts

The **T-account**, named for its shape, is a convenient way of representing an account on a piece of paper. The T, with the account name entered at the top, permits transaction information to be entered on either side of the vertical line. To record transactions, we must be able to record additions to as well as subtractions from accounts. This is easily handled in T-accounts by designating that additions are to be recorded on one side of the vertical line and subtractions on the other.

By convention, assets are increased by entries on the left side of the account and are decreased by entries on the right side of the account. Entries to liability and stockholders' equity accounts are handled in the reverse manner. They are increased by entries on the right side and are decreased by entries on the left side. These rules may be summarized as follows:

Assets are increased by entries on the left side.
Assets are decreased by entries on the right side.
Liabilities and Stockholders' Equity are increased by entries on the right side.
Liabilities and Stockholders' Equity are decreased by entries on the left side.

| **Any Asset Account** | |
|---|---|
| Increases | Decreases |

| **Any Liability or Stockholders' Equity Account** | |
|---|---|
| Decreases | Increases |

All one has to remember is that increases for assets are reported on the left side of the account and are the opposite of increases for liabilities and stockholders' equities, and that decreases for any account are the opposite of increases for that account.

The process of recording transactions consists of determining what accounts are affected, whether they are asset or liability and equity accounts, and whether they are to be increased or decreased. With this information, any transaction can be recorded.

## *Example*

To illustrate the use of accounts, we will record a transaction. Suppose that stockholders invest $10,000 in cash to organize a corporation. The Cash account increases by $10,000 and the Common Stock account increases by the same amount.

To record the increase in cash, we can draw a T-account with the heading Cash and write 10,000 on the left side of the account:

| **Cash** |
|---|
| 10,000 |

This entry of $10,000 on the left side of the account is interpreted as indicating that the amount of cash has increased by $10,000. Thus, the information is preserved and can be used to prepare a balance sheet at a later time.

We can never make an entry to one account without also making an entry to at least one other account. The receipt of cash resulted in a corresponding increase in

common stock. Therefore, an entry must be made to the account, Common Stock, to indicate an increase of $10,000.

Following the convention used for cash, it might seem logical to record the increase in common stock by writing the amount on the left side of the T-account. This would be the case if the rule were to record all increases on the left side. However, the increases in equity accounts are recorded by entries to the *right* side. Thus, the increase in common stock would be recorded by writing $10,000 on the right side of an account with the heading Common Stock:

| **Common Stock** | |
|---|---|
| | 10,000 |

## *Debits and Credits*

It is awkward to speak of entries "to the left side of an account" and entries "to the right side of an account." This difficulty is eliminated by the use of specialized terminology. Thus, instead of entries to the left side of an account, the accountant speaks of **debits** (abbreviated Dr.); instead of entries to the right side of an account, the accountant speaks of **credits** (abbreviated Cr.). These are the primary definitions of debits and credits. One is likely to run into confusion attempting to infer any other meaning for these terms. The most useful definition is that *a debit is an entry to the left side of an account.* It follows that *a credit is an entry to the right side of an account*.

It has been shown previously that an entry to the left side of an asset account increases that account. If an asset account is increased by debits, it must be decreased by the opposite entry — credits. Liability or stockholders' equity accounts have the opposite characteristics of asset accounts. Therefore, they are increased by credits and decreased by debits.

| **Any Asset Account** | |
|---|---|
| Debit (increase) | Credit (decrease) |

| **Any Liability or Stockholders' Equity Account** | |
|---|---|
| Debit (decrease) | Credit (increase) |

The term **charge** is often used interchangeably with debit. A charge to an account is a debit.

## *Keying Transactions*

When several transactions are involved, it is convenient to place a number identifying each transaction in the T-account near the dollar amount. This procedure

is called **keying** the transaction. Keying facilitates cross-references and aids in checking the recording process. Transactions should always be keyed.

### *Example*

We will now continue the illustration. Determine the accounts affected by each transaction, whether they are assets or equities, and whether they are increased or decreased. This determines whether the entries are to be made on the left or right side of the accounts. For each transaction, the left-side entries (debits) must be equal to the right-side entries (credits).

Transactions:

1. Stockholders invest $10,000 in cash (increase an asset; increase an equity).
2. The company buys $5,000 of merchandise on account (increase an asset; increase a liability).
3. At the end of the year the company buys a building for $20,000, pays $4,000 cash, and issues $16,000 of bonds (increase an asset; decrease another asset; increase a liability).
4. The merchandise (see Transaction 2) is paid for (decrease an asset; decrease a liability).

| **Cash** | |
|---|---|
| (1) 10,000 | (3) 4,000 |
| | (4) 5,000 |

| **Common Stock** | |
|---|---|
| | (1) 10,000 |

| **Merchandise** | |
|---|---|
| (2) 5,000 | |

| **Accounts Payable** | |
|---|---|
| (4) 5,000 | (2) 5,000 |

| **Building** | |
|---|---|
| (3) 20,000 | |

| **Bonds Payable** | |
|---|---|
| | (3) 16,000 |

## *Equality of Entries*

Notice that it is *not* necessarily the case that the number of increases will equal the number of decreases for any transaction. It is possible to have valid entries with two increases (e.g., increase an asset, increase a stockholder's equity) or two decreases (decrease an asset, decrease a liability) as well as entries with equal increases and decreases (increase an asset, decrease another asset). Relating increases to decreases is not a useful check. The equality of left-side and right-side (debit and credit) entries is an important control device.

## *Recording Accounting Transactions*

In any accounting entry, the debits must equal the credits. This is synonymous with the statement that entries to the left side of accounts must equal entries to the right side of accounts. Entries may take many forms, for there is a variety of transactions that may be recorded with debits and credits.

It is not possible to be correct and make an entry that increases one asset and also increases another asset (two debits and no credits). Nor is it possible to be correct and make an entry that increases liabilities and stockholders' equity but does not affect another account (two credits and no debits).

The procedure for deciding on the entries to be made in recording a financial transaction consists of the three steps suggested by the following three sets of questions:

1. What accounts are affected? What was given or received in the transaction?
2. What accounts should be debited or credited?
3. What amounts should be debited and credited?

Assume that $500 of accounts payable are paid. What accounts are affected? Cash and Accounts Payable are the two accounts affected. What accounts should be debited or credited? Which accounts are increased or decreased by the transaction? Cash is decreased and Accounts Payable is decreased. To decrease an asset, it is necessary to credit it; and to decrease a liability, it is necessary to debit it. What amounts should be debited and credited? Both accounts are decreased by $500. This transaction is recorded by debiting Accounts Payable for $500 and crediting Cash for $500. This type of systematic analysis is useful in recording transactions.

## *Account Balances*

For many purposes, it is necessary to determine the balance in an account. This is accomplished by adding the debits, adding the credits, and determining the difference between the two sums.

An account is said to have a **debit balance** if the sum of the debit entries to that account exceeds the sum of the credit entries. Conversely, an account has a **credit balance** if the sum of the credit entries exceeds the sum of the debit entries. In the example illustrated earlier in this chapter, the cash account appeared as follows:

**Cash**

| | |
|---|---|
| (1) 10,000 | (3) 4,000 |
| | (4) 5,000 |

The debits total $10,000 and the credits total $9,000; the debits exceed the credits by $1,000.

Asset accounts normally have debit balances inasmuch as these accounts are increased by debiting. An asset account with a credit balance is no longer an asset. For example, suppose the Accounts Receivable account had a credit balance. This would indicate that the company owed money to its customers, and thus it is properly classified as a liability. Liability and stockholders' equity accounts normally have credit balances because these accounts are increased by crediting.

It is not possible to tell whether an account is an asset or a stockholder's equity by merely observing its balance. For example, accounts with credit balances may represent deductions from assets rather than stockholders' equities. Accounts with debit balances may represent deductions from liabilities rather than assets.

The fact that total debits were equal to total credits in the illustrations is not due merely to chance or to the contrived nature of the examples. This equality must always exist if the recording process is to be carried out correctly. Whenever the total debits are not equal to total credits, it is certain that an error has been made. Testing the equality of the debit and credit entries serves as a convenient device to detect mistakes.

Although the inequality of debits and credits always signals the presence of an error, the equality of debits and credits does not assure the accuracy of the records. The range of errors that might be disclosed by the equality test is quite broad. However, it discloses neither the omission of an entry nor an entry to the wrong account.

It is impossible to conceive of a transaction whereby an asset would be increased and a liability decreased with no other changes. Any time that debits do not equal credits, it follows that an error has been made.

The choice to increase stockholders' equity accounts with credits given that asset accounts are increased with debits was not an arbitrary whim. The convention was adopted to result in the equality of debits and credits for each transaction, a desirable control feature.

## Journal Entries

Up to this point we have made entries in T-accounts, which are very useful for learning how to record accounting entries. In concept, the T-account is related to an important component of the recording system used in accounting practice — the ledger. The **ledger** is a collection of accounts that is used to summarize the results of transactions so that the balance of each account may be readily determined.

When many transactions are involved, it might become rather cumbersome to record each of them directly in the ledger. The ledger would soon become cluttered with numerous entries, and it would be difficult to trace the effects of individual transactions even when the ledger entries are keyed.

As a matter of convenience, it is often desirable to record transactions in **journal entry form**. In this form, the titles of accounts to be debited or credited are listed along with the amounts involved. The accounts to be debited are listed first. The accounts to be credited are listed next and are distinguished by indenting. An explanation may be added where it is desirable.

In most cases, the journal entries contain the same information as would have been presented if the transactions had been recorded in T-account form. If the **journal entry form** is used rather than T-accounts to record transactions, we would have the following format:

| | **Dr.** | **Cr.** |
|---|---|---|
| Cash | 1,000,000 | |
| Common stock | | 1,000,000 |
| To record the issuance of $1,000,000 of common stock. | | |
| Building | 500,000 | |
| Cash | | 500,000 |
| To record the purchase of a building for $500,000 cash. | | |

The **journal entry format** is also related to a recording procedure used in practice. A **journal**, or **book of original entry**, is used to record transactions in chronological order. Entries are normally recorded first in a journal and then transferred to the ledger.

## Summary

We have defined the equation:

$$\text{Assets} = \text{Liabilities} + \text{Stockholders' Equity}.$$

This equality always holds. The formal expansion of this equality leads to the important financial statement, the balance sheet.

The primary function of financial accounting is to report the results of operations and the financial position of the enterprise. These reports are important to management and other users of the statements, since they reflect the results of past decisions and the execution of these decisions. Also, management knows that the present decisions will be similarly evaluated. However, when managers make decisions, they generally supplement conventional financial statements with

information prepared especially for the decisions being made. Thus, the primary accounting concern of this book is financial reporting of a score-keeping nature. Knowing where you are (the balance sheet) and how you got there (the income statement) is important to decision makers.

Accounts are used to record increases and decreases in assets, liabilities, and stockholders' equity. Assets are increased by entries to the left-hand side of T-accounts (debits) and are decreased by entries to the right-hand side of T-accounts (credits). Liabilities and stockholders' equity are decreased by entries to the left-hand side of T-accounts (debits) and are increased by entries to the right-hand side of T-accounts (credits).

The accounting convention of increasing asset accounts with debits and increasing liability or equity accounts with credits provides a system in which, for each entry, the debits must equal the credits. Thus, for the total of all entries, the sum of the debits must equal the sum of the credits.

It is not important that we defined a debit to increase assets; we could just as reasonably have defined it as a decrease. It is important that, having defined a debit as an increase in an asset account, a debit should have the opposite effect on a liability or stockholders' equity account. The changes in assets must equal the changes in sources of assets. Also, the debits must equal the credits for each transaction.

## Review Problems

### *Review Problem 3.1*

The following facts apply to the ABC Company in the year 20XX.

1. Stockholders invest $1,000,000.
2. The company buys land for $20,000 and a building for $380,000 in cash.
3. The company borrows $100,000 from the bank. The five-year note bears 14 percent interest per year.
4. The company purchases $300,000 of merchandise, pays for $200,000 of it, and reflects the remainder as an account payable.
5. Sales of $800,000 are made on account, and there is $50,000 of merchandise remaining at the end of the year. Wages and other expenses for the year are $370,000. Interest of $3,000 is paid on the bank debt. The income is $177,000.
6. Dividends of $100,000 are paid to stockholders.
7. Accounts receivable has an ending balance of $500,000.

Set up T-accounts and record the above transactions. Key all entries. Prepare a balance sheet as of December 31, 20XX, that reflects the foregoing transactions.

## Solution to Review Problem 3.1

**Cash**

| | | | |
|---|---|---|---|
| (1) | 1,000,000 | (2) | 20,000 |
| (3) | 100,000 | (2) | 380,000 |
| (7) | 300,000 | (4) | 200,000 |
| | | (5) | 373,000 |
| | | (6) | 100,000 |
| | | √ | 327,000 |
| | 1,400,000 | | 1,400,000 |
| √ | 327,000 | | |

**Common Stock**

| | | | |
|---|---|---|---|
| √ | 1,000,000 | (1) | 1,000,000 |
| | 1,000,000 | | 1,000,000 |
| | | √ | 1,000,000 |

**Merchandise**

| | | | |
|---|---|---|---|
| (4) | 300,000 | (5) | 250,000 |
| | | √ | 50,000 |
| | 300,000 | | 300,000 |
| √ | 50,000 | | |

**Retained Earnings**

| | | | |
|---|---|---|---|
| (6) | 100,000 | (5) | 177,000 |
| √ | 77,000 | | |
| | 177,000 | | 177,000 |
| | | √ | 77,000 |

**Land**

| | | | |
|---|---|---|---|
| (2) | 20,000 | √ | 20,000 |
| | 20,000 | | 200,000 |
| √ | 20,000 | | |

**Accounts Payable**

| | | | |
|---|---|---|---|
| √ | 100,000 | (4) | 100,000 |
| | 100,000 | | 100,000 |
| | | √ | 100,000 |

**Building**

| | | | |
|---|---|---|---|
| (2) | 380,000 | √ | 380,000 |
| | 380,000 | | 380,000 |
| √ | 380,000 | | |

**Notes Payable**

| | | | |
|---|---|---|---|
| √ | 100,000 | (3) | 100,000 |
| | 100,000 | | 100,000 |
| | | √ | 100,000 |

**Accounts Receivable**

| | | | |
|---|---|---|---|
| (5) | 800,000 | (7) | 300,000 |
| | | √ | 500,000 |
| | 800,000 | | 800,000 |
| √ | 500,000 | | |

**The ABC Company**
**Balance Sheet as of December 31, 20XX**

| **Assets** | | **Liabilities and Stockholders' Equity** | |
|---|---|---|---|
| **Current Assets** | | **Current Liabilities** | |
| Cash | $ 327,000 | Accounts Payable | $ 100,000 |
| Accounts Receivable | 500,000 | | |
| Merchandise | 50,000 | **Long-Term Liabilities** | |
| | | Notes Payable | 100,000 |
| Total Current Assets | $ 877,000 | Total Liabilities | $ 200,000 |
| **Long-Lived Assets** | | **Stockholders' Equity** | |
| Land | 20,000 | Common Stock | 1,000,000 |
| Building | 380,000 | Retained Earnings | 77,000 |
| **Total Assets** | $1,277,000 | **Total Liabilities and Stockholders' Equity** | $1,277,000 |

## Questions and Problems

1. Define the term *accounting*. What are some of the tasks that accountants perform?
2. Should financial accounting principles be based upon income tax regulations?
3. What form of business organization would you expect the following industries to take? Why?
   a. Steel industry.
   b. Law.
   c. Retailing.
   d. Farming.
4. What are two principal financial statements? What is the function of each?
5. The XYZ Company has listed on one of its financial reports (balance sheet), "Buildings, $451,000." Describe the usefulness of this measure for decision making.
6. Accounting is one type of information system. Name several other systems supplying information to business managers. Name several other sources of financial information available to investors.
7. Compare the need for financial information of a bank loan officer, an investor in common stock, and the financial analyst of an insurance company investing in long-term corporate debt.
8. It is sometimes stated that the asset side of a balance sheet should include the rights in property, both tangible and intangible, of a business enterprise. Accepting this statement, discuss whether the following items should be included among the assets:
   a. Investment in government bonds.
   b. Investment in corporate bonds.
   c. Prepaid expenses.
   d. Costs of drilling for oil (assuming oil was found).
   e. Advertising costs connected with a new product (not yet offered for sale).
   f. Costs of organizing a new corporation.
   g. Costs connected with issuing bonds.
   h. Costs of installing a piece of equipment.
   i. Costs of drilling for oil (assuming oil was not found).
9. Indicate which of the following items might be expected to be found on a balance sheet prepared in accordance with Generally Accepted Accounting Principles (the basic framework of accounting):
   a. The value of the managerial organization, which had been developed through the years.

b. The cost incurred in organizing the firm.
c. The value of oil, which had been discovered under a corporate parking lot (there are no drilling costs).
d. The value of the goodwill of customers toward the firm (the goodwill had been built up through the years by good service).
e. The excess of the price paid for an enterprise that had been purchased over the value of the tangible assets acquired (consider tangible assets to refer to the value of inventories, plant, and equipment).

10. A major stockholder of a corporation is concerned about the management of her firm, since the company has land with a value of $8,000,000 being used for parking lots. The controller is aware of the "stewardship function" of accounting and checks the invoices. He finds that the cost of the land was $400,000 and there was no possibility of dishonesty. The controller reports this finding back to the stockholder.

    Comment on the information presented to the stockholder.

11. It has been suggested by reputable economists that firms should be allowed for tax purposes to consider the cost of equipment as a reduction of income at the time of acquisition, since the equipment was paid for at that time (other reasons are also offered).

    If the above proposal were to be accepted, do you think this procedure should be followed for financial reporting purposes? Explain.

12. Assume there is an unknown "true" value. Consider two measurement procedures. One procedure (A) will provide a measure that is less than the true value, and all measurers will present the same measure. The second procedure (B) will provide, on average, a measure equal to the true amount, but it can be either larger or smaller on a random basis. Which measurement procedure do you prefer, assuming your decision will be based on the information obtained?
13. Assume that in the hiring process a firm spends $4,000 per university graduate that it hires. Should the firm consider the entire $4,000 to be an expense in the period in which the person is hired or should portions of it be considered an expense each year for the duration of employment?
14. A dividend of $10,000 will decrease _____ if it has been paid.
15. Determine the accounting income of a company for which the following information is available for the month of June:

| | |
|---|---|
| Dividends Paid to Stockholders | $10,000 |
| Employee Salaries for June | 30,000 |
| Interest Paid on Bank Loan for June | 5,000 |
| June Rent Paid to Landlord | 25,000 |
| Sales to Customers in June | 80,000 |

16. The assets of a corporation total $10,000; the liabilities, $4,000. The claims of the owners are _____.
17. The Aesop Company has total assets of $1,000,000 and total liabilities of $600,000. The common stockholders have explicitly invested $100,000 in the firm. Since organization, the firm has paid cash dividends of $800,000.
    a. What have the total earnings been since organization?
    b. If the stockholders had explicitly invested $700,000 but if all other facts were unchanged, what would be the total earnings since organization?
18. From the following information, presented as of December 31, 20XX, prepare a balance sheet for the Arley Corporation in good form.

| | |
|---|---|
| Liabilities | $8,000 |
| Cash | 4,000 |
| Materials | 2,000 |
| Buildings | 7,000 |
| Owners' Equities | ? |

19. From the following information, obtained as of December 31, 20XX, prepare a balance sheet for the Adams Corporation in good form.

| | | | |
|---|---|---|---|
| Accounts Payable | $ 12,000 | Land | $ 25,000 |
| Dividends Payable | 5,000 | Equipment | 75,000 |
| Cash | 45,000 | Accounts Receivable | 15,000 |
| Marketable Securities | 10,000 | Interest Payable | 2,000 |
| Investments | 40,000 | Merchandise | 25,000 |
| Bonds Payable | 100,000 | Supplies | 2,000 |
| Common Stock | 150,000 | Buildings | 100,000 |
| | | Retained Earnings | ? |

20. From the following information, obtained as of December 31, 20XX, prepare a balance sheet for the Adler Corporation in good form.

| | | | |
|---|---|---|---|
| Accounts Payable | $ 10,000 | Land | $10,000 |
| Dividends Payable | 4,000 | Equipment | 60,000 |
| Cash | 20,000 | Accounts Receivable | 15,000 |
| Marketable Securities | 10,000 | Interest Payable | 1,000 |
| Investments | 40,000 | Merchandise | 18,000 |
| Bonds Payable | 50,000 | Supplies | 2,000 |
| Common Stock | 100,000 | Buildings | 50,000 |
| | | Retained Earnings | ? |

21. Certain accounts are increased by entries to the left side of the account, others by entries to the right side of the account. For each of the following items, indicate whether the amount should be entered on the right or left side of the account.

    **Increase Cash**
    **Increase Wages Payable**
    **Decrease Bonds Payable**
    **Increase Retained Earnings**
    **Decrease Cash**
    **Increase Common Stock**

22. For each of the following transactions, indicate the two (or more) accounts that are affected and how they are affected (increase or decrease). Indicate whether the accounts are debited or credited.

    a. Cash is invested by the stockholders.
    b. Merchandise is purchased on account.
    c. The merchandise is paid for.
    d. Insurance is purchased and paid for.
    e. Merchandise is sold on account.
    f. Dividends are paid to the stockholders.

23. For each of the following transactions, indicate what accounts are likely to be affected and whether the accounts are likely to be debited or credited.

    a. Money is received from stockholders.
    b. Merchandise is purchased on account.
    c. A building is purchased. Payment is made by cash and by taking out a mortgage.
    d. A piece of equipment is sold for cash.

24. a. Set up T-accounts and record the following transactions of the Barker Corporation for the month of March.

    (1) Stockholders invest $100,000.
    (2) The company buys $19,000 of merchandise on account.
    (3) The company pays $11,000 of the amount owed for the merchandise.
    (4) One year's rent is paid, $4,800. The rent applies to the year beginning March 1.
    (5) Sales for March, the first month of operations, total $13,300. All sales are for cash. The merchandise sold costs $7,900. Salaries paid in cash to employees during the month are $1,000, and the company owes an additional $300 of wages as of the end of the month.

(6) Dividends of $500 are paid to stockholders.

b. Prepare a balance sheet as of March 31, 20XX.

25. a. Set up T-accounts and record the following transactions; key all entries.

(1) Stockholders invest $100,000.
(2) The company buys $12,000 of merchandise on account.
(3) The company buys a building, paying $2,000 cash and assuming a $28,000 mortgage for the remainder of the purchase price of $30,000.
(4) The merchandise (see Transaction 2) is paid for.
(5) Sales of $9,000 are made. Of these sales, $7,000 are for cash and the remainder on account. The cost of the merchandise sold is $6,000. Wages earned and paid during this period total $1,200.
(6) An amount of $800 is paid to the mortgagee. Of this amount, $560 is interest and the remainder represents a reduction of the principal balance.
(7) Dividends of $400 are paid to stockholders.

b. Prepare a balance sheet as of December 31, 20XX, giving effect to all the foregoing transactions.