

CHAPTER 3

The Accounting Cycle

Capturing Economic Events

After studying this chapter, you should be able to:

Learning Objectives

- LO3-1** Identify the steps in the accounting cycle and discuss the role of accounting records in an organization.
- LO3-2** Describe a ledger account and a ledger.
- LO3-3** Understand how balance sheet accounts are increased or decreased.
- LO3-4** Explain the double-entry system of accounting.
- LO3-5** Explain the purpose of a journal and its relationship to the ledger.
- LO3-6** Explain the nature of net income, revenue, and expenses.
- LO3-7** Apply the realization and matching principles in recording revenue and expenses.
- LO3-8** Understand how revenue and expense transactions are recorded in an accounting system.
- LO3-9** Prepare a trial balance and explain its uses and limitations.
- LO3-10** Distinguish between accounting cycle procedures and the knowledge of accounting.



PWC

PwC is a multinational professional services firm, including being one of the Big Four auditing firms. PwC provides auditing, tax, and various consulting services. Since it does not sell goods, it is considered a service business. Service businesses are increasingly important in the United States and span a wide variety of businesses. Service businesses include law, medicine, accounting, engineering, advertising, health care, education, fitness, and many others. In chapters 2 through 5 of this text, we introduce the mechanics of the accounting process using service businesses. In latter chapters, we introduce the accounting for businesses that buy goods for resale to others, merchandising businesses, as well as businesses that convert raw materials into a finished product, manufacturing businesses.

Capturing the economic activities of PwC is a complex undertaking. PwC employs approximately 180,000 people across 157 countries in over 700 offices. In FY 2015, PwC reported total revenues of approximately \$35 billion, with audit and assurance representing \$15 billion of that total. PwC must capture the complex business transactions of its worldwide operations.

Efficiently and effectively capturing economic events—such as billings, purchases, and cash receipts and disbursements—is absolutely essential for survival. Most enterprises use computer systems to account for these activities. Very few still use paper ledgers and handwritten journals to record daily activities and transactions. ■

Although Overnight Auto Service engaged in several business transactions in the previous chapter, we did not illustrate how these events were captured by Overnight for use by management and other interested parties. This chapter demonstrates how accounting systems record economic events related to a variety of business transactions.

The Accounting Cycle

LO3-1

LEARNING OBJECTIVE
Identify the steps in the accounting cycle and discuss the role of accounting records in an organization.

In Chapter 2, we illustrated several transactions of Overnight Auto Service that occurred during the last week in January 2018. We prepared a complete set of financial statements immediately following our discussion of these transactions. For practical purposes, businesses do not prepare new financial statements after every transaction. Rather, they accumulate the effects of individual transactions in their accounting records. Then, at regular intervals, the data in these records are used to prepare financial statements, income tax returns, and other types of reports.

The sequence of accounting procedures used to record, classify, and summarize accounting information in financial reports at regular intervals is often termed the **accounting cycle**. The accounting cycle begins with the initial recording of business transactions and concludes with the preparation of a complete set of formal financial statements. The term *cycle* indicates that these procedures must be repeated continuously to enable the business to prepare new, up-to-date financial statements at reasonable intervals.

The accounting cycle generally consists of eight specific steps. In this chapter, we illustrate how businesses (1) journalize (record) transactions, (2) post each journal entry to the appropriate ledger accounts, and (3) prepare a trial balance. The remaining steps of the cycle will be addressed in Chapters 4 and 5. They include (4) making end-of-period adjustments, (5) preparing an adjusted trial balance, (6) preparing financial statements, (7) journalizing and posting closing entries, and (8) preparing an after-closing trial balance.

THE ROLE OF ACCOUNTING RECORDS

The cyclical process of collecting financial information and maintaining accounting records does far more than facilitate the preparation of financial statements. Managers and employees of a business frequently use the information stored in the accounting records for such purposes as:

1. Establishing **accountability** for the assets and/or transactions under an individual's control.
2. Keeping track of routine business activities—such as the amounts of money in company bank accounts, amounts due from credit customers, or amounts owed to suppliers.
3. Obtaining detailed information about a particular transaction.
4. Evaluating the efficiency and performance of various departments within the organization.
5. Maintaining documentary evidence of the company's business activities. (For example, tax laws require companies to maintain accounting records supporting the amounts reported in tax returns.)

The Ledger

LO3-2

LEARNING OBJECTIVE
Describe a ledger account and a ledger.

An accounting system includes a separate record for each item that appears in the financial statements. For example, a separate record is kept for the asset cash, showing all increases and decreases in cash resulting from the many transactions in which cash is received or paid. A similar record is kept for every other asset, for every liability, for owners' equity, and for every revenue and expense account appearing in the income statement.

The record used to keep track of the increases and decreases in financial statement items is termed a **ledger account** or, simply, an **account**. The entire group of accounts is kept together in an accounting record called a **ledger**. Exhibit 3-8 illustrates the ledger of Overnight Auto Service.

The Use of Accounts

An account is a means of accumulating in one place all the information about changes in specific financial statement items, such as a particular asset or liability. For example, the Cash account provides a company's current cash balance, a record of its cash receipts, and a record of its cash disbursements.

In its simplest form, an account has only three elements: (1) a title; (2) a left side, which is called the *debit* side; and (3) a right side, which is called the *credit* side. This form of an account, illustrated as follows and in the next section, is called a *T account* because of its resemblance to the letter T. In a computerized system, of course, the elements of each account are stored and formatted electronically. More complete forms of accounts will be illustrated later.

Title of Account	
Left or Debit Side	Right or Credit Side

A T account—a ledger account in its simplest form

Debit and Credit Entries

An amount recorded on the left, or debit, side of an account is called a **debit**, or a debit entry. Likewise, any amount entered on the right, or credit, side is called a **credit**, or a credit entry. In simple terms, debits refer to the left side of an account, and credits refer to the right side of an account.

To illustrate the recording of debits and credits in an account, let us go back to the eight cash transactions of Overnight Auto Service described in Chapter 2. When these cash transactions are recorded in the Cash account, the receipts are listed on the debit side, and the payments are listed on the credit side. The dates of the transactions may also be listed, as shown in the following illustration:

Cash			
1/20	80,000	1/21	52,000
1/26	600	1/22	6,000
1/31	2,200	1/27	6,800
		1/31	200
		1/31	1,200
1/31 Balance	16,600		

Cash transactions entered in ledger account

Each debit and credit entry in the Cash account represents a cash receipt or a cash payment. The amount of cash owned by the business at a given date is equal to the *balance* of the account on that date.

Determining the Balance of a T Account The balance of an account is the difference between the debit and credit entries in the account. If the debit total exceeds the credit total, the account has a *debit balance*; if the credit total exceeds the debit total, the account has a *credit balance*.

In our illustrated Cash account, a line has been drawn across the account following the last cash transaction recorded in January. The total cash receipts (debits) recorded in January amount to \$82,800, and the total cash payments (credits) amount to \$66,200. By subtracting the credit total from the debit total (\$82,800 - \$66,200), we determine that the Cash account has a debit balance of \$16,600 on January 31.

This debit balance is entered in the debit side of the account just below the line. In effect, the line creates a "fresh start" in the account, with the month-end balance representing the *net*

result of all the previous debit and credit entries. The Cash account now shows the amount of cash owned by the business on January 31. In a balance sheet prepared at this date, Cash in the amount of \$16,600 would be listed as an asset.

Debit Balances in Asset Accounts In the preceding illustration of a Cash account, increases were recorded on the left, or debit, side of the account and decreases were recorded on the right, or credit, side. The increases were greater than the decreases and the result was a debit balance in the account.

All asset accounts normally have debit balances. It is hard to imagine an account for an asset such as land having a credit balance, as this would indicate that the business had disposed of more land than it had ever acquired. (For some assets, such as cash, it is possible to acquire a credit balance—but such balances are only temporary.)

The fact that assets are located on the left side of the balance sheet is a convenient means of remembering the rule that an increase in an asset is recorded on the left (debit) side of the account and an asset account normally has a debit (left-hand) balance.

LO3-3

LEARNING OBJECTIVE

Understand how balance sheet accounts are increased or decreased.

A=L+OE

Asset accounts normally have debit balances

Any Asset Account	
Debit (to record an increase)	Credit (to record a decrease)

Credit Balances in Liability and Owners' Equity Accounts Increases in liability and owners' equity accounts are recorded by credit entries, and decreases in these accounts are recorded by debits. The relationship between entries in these accounts and their position on the balance sheet may be summed up as follows: (1) liabilities and owners' equity belong on the right side of the balance sheet, (2) an increase in a liability or an owners' equity account is recorded on the right (credit) side of the account, and (3) liability and owners' equity accounts normally have credit (right-hand) balances.

A=L+OE

Liability and owners' equity accounts normally have credit balances

Any Liability Account or Owners' Equity Account	
Debit (to record a decrease)	Credit (to record an increase)

Concise Statement of the Debit and Credit Rules The use of debits and credits to record changes in assets, liabilities, and owners' equity may be summarized as follows.

Asset Accounts	Liability & Owners' Equity Accounts
Normally have debit balances. Thus, increases are recorded by debits and decreases are recorded by credits.	Normally have credit balances. Thus, increases are recorded by credits and decreases are recorded by debits.

A=L+OE

Debit and credit rules

DOUBLE-ENTRY ACCOUNTING—THE EQUALITY OF DEBITS AND CREDITS

The rules for debits and credits are designed so that every transaction is recorded by equal dollar amounts of debits and credits. The reason for this equality lies in the relationship of the debit and credit rules to the accounting equation.

$$\begin{matrix} \text{Assets} \\ \text{Debit Balances} \end{matrix} = \begin{matrix} \text{Liabilities + Owners' Equity} \\ \text{Credit Balances} \end{matrix}$$

The Journal

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If this equation is to remain in balance, any change in the left side of the equation (assets) must be accompanied by an equal change in the right side (either liabilities or owners' equity). According to the debit and credit rules that we have just described, increases in the left side of the equation (assets) are recorded by debits, while increases in the right side (liabilities and owners' equity) are recorded by credits, illustrated as follows.

Assets		=	Liabilities		+	Owners' Equity	
Debit to increase (+)	Credit to decrease (-)		Debit to decrease (-)	Credit to increase (-)		Debit to decrease (-)	Credit to increase (+)

This system is often called **double-entry accounting**. The phrase *double-entry* refers to the need for both debit entries and credit entries, equal in dollar amount, to record every transaction. Virtually every business organization uses the double-entry system regardless of whether the company's accounting records are maintained manually or by computer. Later in this chapter, we will see that the double-entry system allows us to measure net income at the same time we record the effects of transactions on the balance sheet accounts.

The Journal

In the preceding discussion we illustrated how the debit and credit rules of double-entry accounting are applied in the recording of economic events. Using T accounts, we stressed the effects that business transactions have on individual asset, liability, and owners' equity accounts that comprise a company's general ledger. It is important to realize, however, that transactions are rarely recorded directly in general ledger accounts. In an actual accounting system, the information about each business transaction is initially recorded in an accounting record called the **journal**. This information is later transferred to the appropriate accounts in the general ledger.

The journal is a chronological (day-by-day) record of business transactions. At convenient intervals, the debit and credit amounts recorded in the journal are transferred (posted) to the accounts in the ledger. The updated ledger accounts, in turn, serve as the basis for preparing the company's financial statements.

To illustrate the most basic type of journal, called a **general journal**, let us examine the very first business transaction of Overnight Auto Service. Recall that on January 20, 2018, the McBryan family invested \$80,000 in exchange for capital stock. Thus, the asset Cash increased by \$80,000, and the owners' equity account Capital Stock increased by the same amount.

Applying the debit and credit rules discussed previously, we know that increases in assets are recorded by debits, whereas increases in owners' equity are recorded by credits. As such, this event requires a debit to Cash and a credit to Capital Stock in the amount of \$80,000. The transaction is recorded in the company's general journal as illustrated in Exhibit 3-1. Note the basic characteristics of this general journal entry.

1. The name of the account debited (Cash) is written first, and the dollar amount to be debited appears in the left-hand money column.
2. The name of the account credited (Capital Stock) appears below the account debited and is indented to the right. The dollar amount appears in the right-hand money column.
3. A brief description of the transaction appears immediately below the journal entry.

Accounting software packages automate and streamline the way in which transactions are recorded. However, recording transactions manually—without a computer—is an effective way to conceptualize the manner in which economic events are captured by accounting systems and subsequently reported in a company's financial statements.

L03-4

LEARNING OBJECTIVE
Explain the double-entry system of accounting.

L03-5

LEARNING OBJECTIVE
Explain the purpose of a journal and its relationship to the ledger.

EXHIBIT 3-1
Recording a Transaction
in the General Journal

GENERAL JOURNAL				
Date	Account Titles and Explanation		Debit	Credit
2018				
Jan. 20	Cash		80,000	
	Capital Stock			80,000
	Owners invest cash in the business.			

A familiarity with the general journal form of describing transactions is just as essential to the study of accounting as a familiarity with plus and minus signs is to the study of mathematics. The journal entry is a *tool for analyzing and describing* the impact of various transactions on a business entity. The ability to describe a transaction in journal entry form requires an understanding of the nature of the transaction and its effect on the financial position of the business.

POSTING JOURNAL ENTRIES TO THE LEDGER ACCOUNTS (AND HOW TO "READ" A JOURNAL ENTRY)

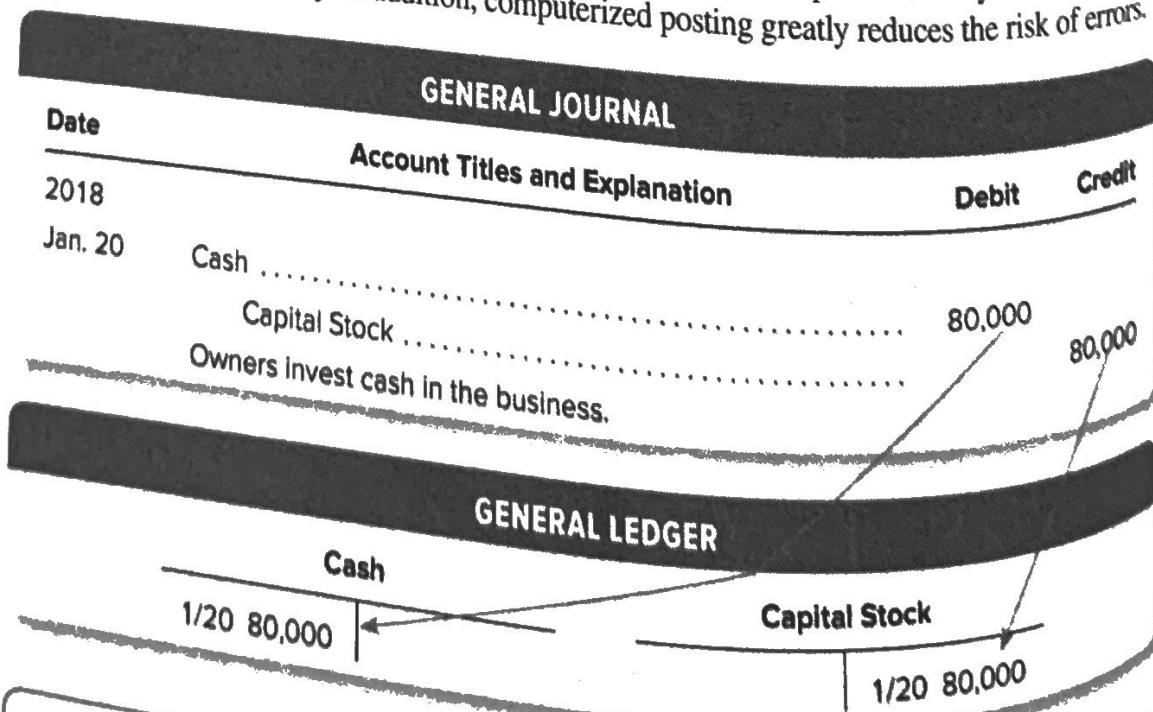
We have made the point that transactions are recorded first in the journal. Ledger accounts are updated later, through a process called **posting**. (In a computerized system, postings often occur instantaneously, rather than later.)

Posting simply means updating the ledger accounts for the effects of the transactions recorded in the journal. Viewed as a mechanical task, posting basically amounts to performing the steps you describe when you read a journal entry aloud.

Consider the first entry appearing in Overnight's general journal. If you were to read this entry aloud, you would say: "Debit Cash, \$80,000; credit Capital Stock, \$80,000." That's precisely what a person posting this entry should do: Debit the Cash account for \$80,000, and credit the Capital Stock account for \$80,000.

The posting of Overnight's first journal entry is illustrated in Exhibit 3-2. Notice that no new information is recorded during the posting process. Posting involves copying into the ledger accounts information that already has been recorded in the journal. In manual accounting systems, this can be a tedious and time-consuming process, but in computer-based systems, it is done instantly and automatically. In addition, computerized posting greatly reduces the risk of errors.

EXHIBIT 3-2
Posting a Transaction
from the Journal to Ledger
Accounts



Recording Balance Sheet Transactions: An Illustration

To illustrate how to use debits and credits for recording transactions in accounts, we return to the January transactions of Overnight Auto Service. At this point, we discuss only those transactions related to changes in the company's financial position and reported directly in

its balance sheet. The revenue and expense transactions that took place on January 31 will be addressed later in the chapter.

Each transaction from January 20 through January 27 is analyzed first in terms of increases in assets, liabilities, and owners' equity. Second, we follow the debit and credit rules for entering these increases and decreases in specific accounts. Asset ledger accounts are shown on the left side of the analysis; liability and owners' equity ledger accounts are shown on the right side. For convenience in the following transactions, both the debit and credit figures for the transaction under discussion are shown in red. Figures relating to earlier transactions appear in black.

Jan. 20 Michael McBryan and family invested \$80,000 cash in exchange for capital stock.

ANALYSIS	The asset Cash is increased by \$80,000, and owners' equity (Capital Stock) is increased by the same amount.								
DEBIT-CREDIT RULES	Increases in assets are recorded by debits; debit Cash \$80,000. Increases in owners' equity are recorded by credits; credit Capital Stock \$80,000.								
JOURNAL ENTRY	<table border="0"> <tr> <td>Jan. 20</td> <td>Cash</td> <td>80,000</td> <td></td> </tr> <tr> <td></td> <td> Capital Stock</td> <td></td> <td>80,000</td> </tr> </table>	Jan. 20	Cash	80,000			Capital Stock		80,000
Jan. 20	Cash	80,000							
	Capital Stock		80,000						
ENTRIES IN LEDGER ACCOUNTS	<table border="1"> <tr> <th colspan="2">Cash</th> <th colspan="2">Capital Stock</th> </tr> <tr> <td>1/20</td> <td>80,000</td> <td>1/20</td> <td>80,000</td> </tr> </table>	Cash		Capital Stock		1/20	80,000	1/20	80,000
Cash		Capital Stock							
1/20	80,000	1/20	80,000						

Owners invest cash in the business

A=L+OE		
Assets	=	Liabilities + Owners' Equity
+80,000		+80,000

Jan. 21 Representing Overnight, McBryan negotiated with both the City of Santa Teresa and Metropolitan Transit Authority (MTA) to purchase an abandoned bus garage. (The city owned the land, but the MTA owned the building.) On January 21, Overnight Auto Service purchased the land from the city for \$52,000 cash.

ANALYSIS	The asset Land is increased \$52,000, and the asset Cash is decreased \$52,000.												
DEBIT-CREDIT RULES	Increases in assets are recorded by debits; debit Land \$52,000. Decreases in assets are recorded by credits; credit Cash \$52,000.												
JOURNAL ENTRY	<table border="0"> <tr> <td>Jan. 21</td> <td>Land</td> <td>52,000</td> <td></td> </tr> <tr> <td></td> <td> Cash</td> <td></td> <td>52,000</td> </tr> </table>	Jan. 21	Land	52,000			Cash		52,000				
Jan. 21	Land	52,000											
	Cash		52,000										
ENTRIES IN LEDGER ACCOUNTS	<table border="1"> <tr> <th colspan="2">Land</th> <th colspan="2">Cash</th> </tr> <tr> <td>1/21</td> <td>52,000</td> <td>1/20</td> <td>80,000</td> </tr> <tr> <td></td> <td></td> <td>1/21</td> <td>52,000</td> </tr> </table>	Land		Cash		1/21	52,000	1/20	80,000			1/21	52,000
Land		Cash											
1/21	52,000	1/20	80,000										
		1/21	52,000										

Purchase of an asset for cash

A=L+OE		
Assets	=	Liabilities + Owners' Equity
+52,000		
-52,000		

Jan. 22 Overnight completed the acquisition of its business location by purchasing the abandoned building from the MTA. The purchase price was \$36,000; Overnight made a \$6,000 cash down payment and issued a 90-day, non-interest-bearing note payable for the remaining \$30,000.

Purchase of an asset, making a small down payment

A=L+LOE	Assets	=	Liabilities	+	Owners' Equity
	+\$36,000		+\$30,000		
	-\$ 6,000				

ANALYSIS

A new asset Building is acquired at a total cost of \$36,000. The asset Cash is decreased \$6,000, and a liability Notes Payable of \$30,000 is incurred.

DEBIT-CREDIT RULES

Increases in assets are recorded by debits; debit Building \$36,000.
Decreases in assets are recorded by credits; credit Cash \$6,000.
Increases in liabilities are recorded by credits; credit Notes Payable \$30,000.

JOURNAL ENTRY

Jan. 22	Building	36,000	
	Cash		6,000
	Notes Payable		30,000

ENTRIES IN LEDGER ACCOUNTS

Building	
1/22	36,000

Cash	
1/20	80,000
1/21	52,000
1/22	6,000

Notes Payable	
1/22	30,000

Jan. 23 Overnight purchased tools and equipment on account from Snappy Tools. The purchase price was \$13,800, due in 60 days.

Credit purchase of an asset

A=L+LOE	Assets	=	Liabilities	+	Owners' Equity
	+\$13,800		+\$13,800		

ANALYSIS

A new asset Tools and Equipment is acquired at a cost of \$13,800, and a liability Accounts Payable of \$13,800 is incurred.

DEBIT-CREDIT RULES

Increases in assets are recorded by debits; debit Tools and Equipment \$13,800.
Increases in liabilities are recorded by credits; credit Accounts Payable \$13,800.

JOURNAL ENTRY

Jan. 23	Tools and Equipment	13,800	
	Accounts Payable		13,800

ENTRIES IN LEDGER ACCOUNTS

Tools and Equipment	
1/23	13,800

Accounts Payable	
1/23	13,800

Jan. 24 Overnight found that it had purchased more tools than it needed. On January 24, it sold the excess tools on account to Ace Towing at a price of \$1,800. The tools were sold at a price equal to their cost, so there was no gain or loss on this transaction.

ANALYSIS
 Since the tools are sold at cost, there is no gain or loss on this transaction. An asset Accounts Receivable is acquired in the amount of \$1,800; the asset Tools and Equipment is decreased \$1,800.

DEBIT-CREDIT RULES
 Increases in assets are recorded by debits; debit Accounts Receivable \$1,800.
 Decreases in assets are recorded by credits; credit Tools and Equipment \$1,800.

JOURNAL ENTRY

Jan. 24	Accounts Receivable	1,800	
	Tools and Equipment		1,800

ENTRIES IN LEDGER ACCOUNTS

Accounts Receivable		Tools and Equipment	
1/24	1,800	1/23	13,800
		1/24	1,800

A=L+LOE
Credit sale of an asset (with no gain or loss)

Assets	=	Liabilities	+	Owners' Equity
+\$1,800				
-\$1,800				

Jan. 26 Overnight received \$600 in partial collection of the account receivable from Ace Towing.

ANALYSIS
 The asset Cash is increased \$600, and the asset Accounts Receivable is decreased \$600.

DEBIT-CREDIT RULES
 Increases in assets are recorded by debits; debit Cash \$600.
 Decreases in assets are recorded by credits; credit Accounts Receivable \$600.

JOURNAL ENTRY

Jan. 26	Cash	600	
	Accounts Receivable		600

ENTRIES IN LEDGER ACCOUNTS

Cash		Accounts Receivable	
1/20	80,000	1/21	52,000
1/26	600	1/22	6,000

A=L+LOE
Collection of an account receivable

Assets	=	Liabilities	+	Owners' Equity
+\$600				
-\$600				

Jan. 27 Overnight made a \$6,800 partial payment of its account payable to Snappy Tools.

ANALYSIS
 The liability Accounts Payable is decreased \$6,800, and the asset Cash is decreased \$6,800.

DEBIT-CREDIT RULES
 Decreases in liabilities are recorded by debits; debit Accounts Payable \$6,800.
 Decreases in assets are recorded by credits; credit Cash \$6,800.

JOURNAL ENTRY

Jan. 27	Accounts Payable	6,800	
	Cash		6,800

ENTRIES IN LEDGER ACCOUNTS

Accounts Payable		Cash	
1/27	6,800	1/20	80,000
		1/21	52,000
		1/22	6,000
		1/27	6,800

A=L+LOE
Payment of an account payable

Assets	=	Liabilities	+	Owners' Equity
-\$6,800		-\$6,800		

Ledger Accounts after Posting

The seven journal entries made by Overnight Auto Service from January 20 through January 27 are summarized in Exhibit 3-3.

EXHIBIT 3-3

General Journal Entries:
January 20 through 27

OVERNIGHT AUTO SERVICE GENERAL JOURNAL JANUARY 20-27, 2018			
Date	Account Titles and Explanation	Debit	Credit
2018			
Jan. 20	Cash	80,000	
	Capital Stock		80,000
	Owners invest cash in the business.		
21	Land	52,000	
	Cash		52,000
	Purchased land for business site.		
22	Building	36,000	
	Cash		6,000
	Notes Payable		30,000
	Purchased building from the MTA. Paid part cash; balance payable within 90 days.		
23	Tools and Equipment	13,800	
	Accounts Payable		13,800
	Purchased tools and equipment on credit from Snappy Tools. Due in 60 days.		
24	Accounts Receivable	1,800	
	Tools and Equipment		1,800
	Sold unused tools and equipment at cost to Ace Towing.		
26	Cash	600	
	Accounts Receivable		600
	Collected part of account receivable from Ace Towing.		
27	Accounts Payable	6,800	
	Cash		6,800
	Made partial payment of the liability to Snappy Tools.		

After all of the journal entries in Exhibit 3-3 have been posted, Overnight's ledger accounts appear as shown in Exhibit 3-4. The accounts are arranged in the same order as in the balance sheet—that is, assets first, followed by liabilities and owners' equity accounts. Each ledger account is presented in what is referred to as a *running balance* format (as opposed to simple T accounts). You will notice that the running balance format does not indicate specifically whether a particular account has a debit or credit balance. This causes no difficulty, however, because we know that asset accounts normally have debit balances, and liability and owners' equity accounts normally have credit balances.

In the ledger accounts in Exhibit 3-4, we have not yet included any of Overnight's revenue and expense transactions discussed in Chapter 2. All of the company's revenue and expense transactions took place on January 31. Before we can discuss the debit and credit rules for revenue and expense accounts, a more in-depth discussion of net income is warranted.

Ledger Accounts after Posting

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CASH

Date	Debit	Credit	Balance
2018			
Jan. 20	80,000		80,000
21		52,000	28,000
22		6,000	22,000
26	600		22,600
27		6,800	15,800

ACCOUNTS RECEIVABLE

Date	Debit	Credit	Balance
2018			
Jan. 24	1,800		1,800
26		600	1,200

TOOLS AND EQUIPMENT

Date	Debit	Credit	Balance
2018			
Jan. 23	13,800		13,800
24		1,800	12,000

BUILDING

Date	Debit	Credit	Balance
2018			
Jan. 21	36,000		36,000

LAND

Date	Debit	Credit	Balance
2018			
Jan. 21	52,000		52,000

NOTES PAYABLE

Date	Debit	Credit	Balance
2018			
Jan. 22		30,000	30,000

ACCOUNTS PAYABLE

Date	Debit	Credit	Balance
2018			
Jan. 23		13,800	13,800
27	6,800		7,000

CAPITAL STOCK

Date	Debit	Credit	Balance
2018			
Jan. 20		80,000	80,000

EXHIBIT 3-4
Ledger Showing
Transactions

What Is Net Income?

As previously noted, **net income** is an increase in owners' equity resulting from the profitable operation of the business. Net income does not consist of any cash or any other specific assets. Rather, net income is a computation of the overall effects of many business transactions on owners' equity. The effects of net income on the basic accounting equation are illustrated as follows.

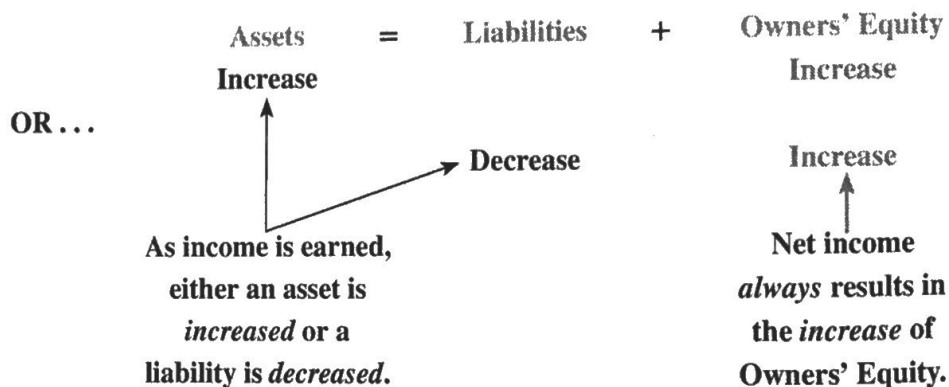
LO3-6

LEARNING OBJECTIVE

Explain the nature of net income, revenue, and expenses.

A=L+LOE

Net income is not an asset—it's an increase in owners' equity



Our point is that net income represents an increase in owners' equity and has no direct relationship to the types or amounts of assets on hand. Even a business operating at a profit may run short of cash.

In the balance sheet, the changes in owners' equity resulting from profitable or unprofitable operations are reflected in the balance of the stockholders' equity account, *Retained Earnings*. The assets and liabilities of the business that change as a result of income-related activities appear in their respective sections of the balance sheet.

RETAINED EARNINGS

As illustrated in Chapter 2, the Retained Earnings account appears in the stockholders' equity section of the balance sheet. Earning net income causes the balance in the Retained Earnings account to increase. However, many corporations follow a policy of distributing to their stockholders some of the resources generated by profitable operations. Distributions of this nature are termed **dividends**, and they reduce both total assets and stockholders' equity. The reduction in stockholders' equity is reflected by decreasing the balance of the Retained Earnings account.

The balance in the Retained Earnings account represents the total net income of the corporation over the entire lifetime of the business, less all of the dividends to its stockholders. In short, **retained earnings** represent the earnings that have been retained by the corporation to finance growth. Some of the largest corporations have become large by consistently retaining in the business most of the resources generated by profitable operations. For instance, a recent annual report of Apple Inc., shows total stockholders' equity of \$119 billion. Of this amount, retained earnings of nearly \$92 billion account for over 77 percent of the company's total equity.



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THE INCOME STATEMENT: A PREVIEW

An **income statement** is a financial statement that summarizes the profitability of a business entity for a specified period of time. In this statement, net income is determined by comparing sales prices of goods or services sold during the period with the costs incurred by the business in delivering these goods or services. The technical accounting terms for these components of net income are **revenue** and **expenses**. Therefore, accountants say that net income is equal to revenue minus expenses. Should expenses exceed revenue, a **net loss** results.



PATHWAYS CONNECTION

Would you be interested in investing in or lending money to a company that reported eight straight years of losses in the following amounts (all in millions): \$0.3, \$6, \$31, \$125, \$720, \$1.4, \$567, \$149? Those numbers were the reported net income (actually net loss) for Amazon in every year from 1995 through 2002. Amazon did not report a profit until 2003 when it reported a \$35 million profit. Moreover, it took until 2009 before Amazon reported a positive balance in retained earnings. Amazon was reporting large net losses as it invested heavily in building its infrastructure and brand. By investing for the long haul, Amazon grew net sales from \$147 million in 1997 to \$6.9 billion in 2004, a compound annual growth rate of over 70 percent.

The market recognized that Amazon's reported losses were enabling it to build a dominant online presence and, as a result, during that time Amazon was able to finance itself by issuing debt and stock (including the exercise of stock options). For

example, Amazon issued long-term debt of \$326 million and \$1.2 billion in 1998 and 1999, respectively. Moreover, Amazon received cash proceeds from issuing stock (including exercised stock options) of \$64 million, \$122 million, and \$163 million in 1999, 2002, and 2003, respectively. Finally, although Amazon reported net losses every year from 1995 to 2002, its cash flows from operations were in some years positive. Certain expenses reduced Amazon's net income but not its cash flows—items like depreciation, amortization, and stock-based compensation. And Amazon financed much of its operations (i.e., generated cash flow) by vendor-provided financing. These concepts are covered when we introduce the Statement of Cash Flows in Chapter 13. Amazon shows that a business can report losses for many years and still be viable, even quite successful, if it is able to generate sufficient cash flow to finance its operations.

A sample income statement for Overnight Auto Service for the year ended December 31, 2018, is shown in Exhibit 3-5. In Chapter 5, we show exactly how this income statement was developed from the company's accounting records. For now, however, the illustration will assist us in discussing some of the basic concepts involved in measuring net income.

Income Must Be Related to a Specified Period of Time Notice that our sample income statement covers a period of time—namely, the year 2018. A balance sheet shows the financial position of a business at a particular date. We cannot evaluate net income unless it is

EXHIBIT 3-5
A Preview of Overnight's
Income Statement

OVERNIGHT AUTO SERVICE INCOME STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2018		
Revenue:		
Repair service revenue		\$172,000
Rent revenue earned		3,000
Total revenue		<u>\$175,000</u>
Expenses:		
Advertising	\$ 3,900	
Salaries and wages	58,750	
Supplies	7,500	
Depreciation: building	1,650	
Depreciation: tools and equipment	2,200	
Utilities	19,400	
Insurance	15,000	
Interest	30	
Income before income taxes		<u>108,430</u>
Income taxes		26,628
Net income		<u>\$ 39,942</u>

associated with a specific time period. For example, if an executive says, "My business earns a net income of \$10,000," the profitability of the business is unclear. Does it earn \$10,000 per week, per month, or per year?

CASE IN POINT

The late J. Paul Getty, one of the world's first billionaires, was once interviewed by a group of business students. One of the students asked Getty to estimate the amount of his income. As the student had not specified a time period, Getty decided to have some fun with his audience and responded, "About \$11,000." He paused long enough to allow the group to express surprise over this seemingly low amount, and then completed his sentence, "an hour."

Accounting Periods The period of time covered by an income statement is termed the company's **accounting period**. To provide the users of financial statements with timely information, net income is measured for relatively short accounting periods of equal length. This concept, called the **time period principle**, is one of the underlying accounting principles that guide the interpretation of financial events and the preparation of financial statements.

The length of a company's accounting period depends on how frequently managers, investors, and other interested people require information about the company's performance. Every business prepares annual income statements, and most businesses prepare quarterly and monthly income statements as well. (Quarterly statements cover a three-month period and are prepared by all large corporations for distribution to their stockholders.)

The 12-month accounting period used by an entity is called its **fiscal year**. The fiscal year used by most companies coincides with the calendar year and ends on December 31. Some businesses, however, elect to use a fiscal year that ends on some other date.

For example, **The Walt Disney Company** ends its fiscal year on the first Saturday in October. Why? For one reason, September and October are relatively slow months at the company's theme parks. Furthermore, September financial statements provide timely information about the preceding summer, which is the company's busiest season. Most large retailers, such as **Walmart** and **JCPenney**, end their fiscal years at the end of January, after the rush of the holiday season. Many choose the last Saturday of January as their cutoff, which results in an exact 52-week reporting period approximately five out of every six years.

Let us now explore the meaning of the accounting terms *revenue* and *expenses* in more detail.

REVENUE

Revenue is the price of goods sold and services rendered during a given accounting period. Earning revenue causes owners' equity to increase. When a business renders services or sells merchandise to its customers, it usually receives cash or acquires an account receivable from the customer. The inflow of cash and receivables from customers increases the total assets of the company; on the other side of the accounting equation, owners' equity increases to match the increase in total assets. Thus, revenue is the gross increase in owners' equity resulting from operation of the business.

Various account titles are used to describe different types of revenue. For example, a business that sells merchandise rather than services, such as **Walmart** or **General Motors**, uses the term *Sales* to describe its revenue. In the professional practices of physicians, CPAs, and attorneys, revenue usually is called *Fees Earned*. A real estate office, however, might call its revenue *Commissions Earned*.

Overnight Auto Service's income statement reveals that the company records its revenue in two separate accounts: (1) *Repair Service Revenue* and (2) *Rent Revenue Earned*. A professional sports team might also have separate revenue accounts for *Ticket Sales*, *Concessions*

Revenue always causes an increase in owners' equity

What Is Net Income?

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Revenue, and Revenue from Television Contracts. Another type of revenue common to many businesses is Interest Revenue (or Interest Earned), stemming from the interest earned on bank deposits, notes receivable, and interest-bearing investments.

The Realization Principle: When to Record Revenue When should revenue be recognized? In most cases, the **realization principle** indicates that revenue should be recognized at the time goods are sold or services are rendered. At this point, the business has essentially completed the earnings process, and the sales value of the goods or services can be measured objectively. At any time prior to the sale, the ultimate value of the goods or services sold can only be estimated. After the sale, the only step that remains is to collect from the customer, usually a relatively certain event.

To illustrate, assume that on July 25 a radio station contracts with a car dealership to air a series of one-minute advertisements during August. If all of the agreed-upon ads are aired in August, but payment for the ads is not received until September, in which month should the station recognize the advertising revenue? The answer is August, the month in which it rendered the services that earned the advertising revenue. In other words, revenue is recognized when it is earned, without regard to when a contract is signed or when cash payment for providing goods or services is received.

LO3-7

LEARNING OBJECTIVE
Apply the realization and matching principles in recording revenue and expenses.

EXPENSES

Expenses are the costs of the goods and services used up in the process of earning revenue. Examples include the cost of employees' salaries, advertising, rent, utilities, and the depreciation of buildings, automobiles, and office equipment. All these costs are necessary to attract and serve customers and thereby earn revenue. Expenses are often called the "costs of doing business," that is, the cost of the various activities necessary to carry on a business.

An expense always causes a decrease in owners' equity. The related changes in the accounting equation can be either (1) a decrease in assets or (2) an increase in liabilities. An expense reduces assets if payment occurs at the time that the expense is incurred. If the expense will not be paid until later, as, for example, the purchase of advertising services on account, the recording of the expense will be accompanied by an increase in liabilities.

A-1-LOE Expenses always cause a decrease in owners' equity

The Matching Principle: When to Record Expenses A significant relationship exists between revenue and expenses. Expenses are incurred for the purpose of producing revenue. In the measurement of net income for a period, revenue should be offset by all the expenses incurred in producing that revenue. This concept of offsetting expenses against revenue on a basis of cause and effect is called the **matching principle**.

Timing is an important factor in matching (offsetting) revenue with the related expenses. For example, in the preparation of monthly income statements, it is important to offset this month's expenses against this month's revenue. We should not offset this month's expenses against last month's revenue because there is no cause and effect relationship between the two. Assume that the salaries earned by a company's marketing team for serving customers in July are not paid until early August. In which month should these salaries be regarded as expenses—July or August? The answer is July, because July is the month in which the marketing team's services helped to produce revenue. Just as revenue and cash receipts are not one and the same, expenses and cash payments are not identical. In fact, the cash payment of an expense may occur before, after, or in the same period that revenue is earned. In deciding when to report an expense in the income statement, the critical question is, "In what period does the cash expenditure help to produce revenue?" and not, "When does the payment of cash occur?"

Expenditures Benefiting More Than One Accounting Period Many expenditures made by a business benefit two or more accounting periods. Fire insurance policies, for example, usually cover a period of 12 months. If a company prepares monthly income statements, a portion of the cost of such a policy should be allocated to insurance expense each month that the policy is in force. In this case, apportionment of the cost of the policy by months is an easy matter. If the 12-month policy costs \$2,400, for example, the insurance expense for each month amounts to \$200 ($\$2,400 \text{ cost} \div 12 \text{ months}$).

Not all transactions can be divided so precisely by accounting periods. The purchase of a building, furniture and fixtures, machinery, a computer, or an automobile provides benefits to the business over all the years in which such an asset is used. No one can determine in advance exactly how many years of service will be received from such long-lived assets. Nevertheless, in measuring the net income of a business for a period of one year or less, accountants must estimate what portion of the cost of the building and other long-lived assets is applicable to the current year. Since the allocations of these costs are estimates rather than precise measurements, it follows that income statements should be regarded as useful approximations of net income rather than as absolutely correct measurements.

For some expenditures, such as those for employee training programs, it is not possible to estimate objectively the number of accounting periods over which revenue is likely to be produced. In such cases, generally accepted accounting principles require that the expenditure be charged immediately to expense. This treatment is based upon the accounting principle of **objectivity** and the concept of **conservatism**. Accountants require objective evidence that an expenditure will produce revenue in future periods before they will view the expenditure as creating an asset. When this objective evidence does not exist, they follow the conservative practice of recording the expenditure as an expense. Conservatism, in this context, means applying the accounting treatment that results in the lowest (most conservative) estimate of net income for the current period.



INTERNATIONAL CASE IN POINT

International financial reporting standards (IFRSs) differ significantly from U.S. GAAP with respect to costs that are expensed immediately and costs that are capitalized. For example, IFRS 38 allows development costs to be capitalized if certain criteria are met, but under U.S. GAAP these same costs would need to be expensed in the period in which they occur. Conversely, advertising costs are expensed as incurred under IFRS, whereas under some limited circumstances advertising costs can be capitalized under U.S. GAAP.

THE ACCRUAL BASIS OF ACCOUNTING

The policy of recognizing revenue in the accounting records when it is *earned* and recognizing expenses when the related goods or services are *used* is called the **accrual basis of accounting**. The purpose of accrual accounting is to measure the profitability of the economic activities conducted during the accounting period.

The most important concept involved in accrual accounting is the matching principle. Revenue is offset with all of the expenses incurred in generating that revenue, thus providing a measure of the overall profitability of the economic activity.

An alternative to the accrual basis is called *cash basis accounting*. Under cash basis accounting, revenue is recognized when cash is collected from the customer, rather than when the company sells goods or renders services. Expenses are recognized when payment is made, rather than when the related goods or services are used in business operations. The cash basis of accounting measures the amounts of cash received and paid out during the period, but it does *not* provide a good measure of the profitability of activities undertaken during the period.

Exhibit 3-6 illustrates that, under the accrual basis of accounting, cash receipts or disbursements may occur prior to or after revenue is earned or an expense is incurred.

DEBIT AND CREDIT RULES FOR REVENUE AND EXPENSES

We have stressed that revenue increases owners' equity and that expenses decrease owners' equity. The debit and credit rules for recording revenue and expenses in the ledger

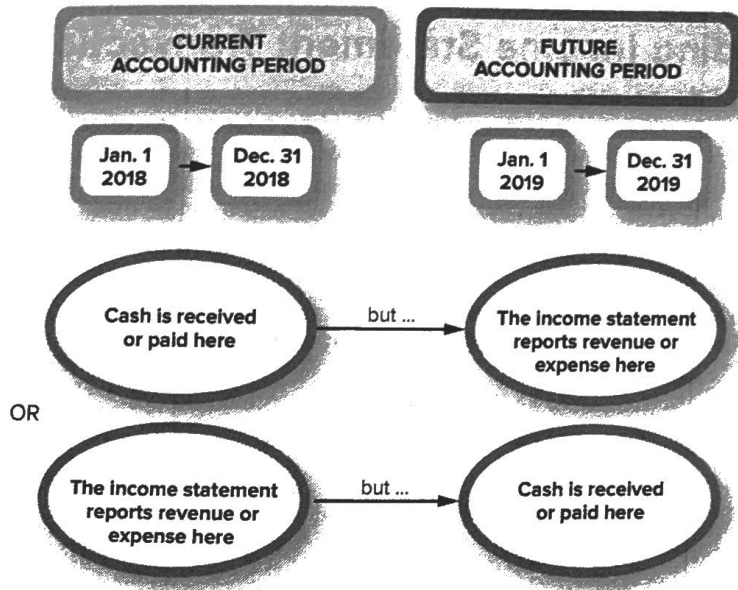


EXHIBIT 3-6
Cash Flow versus Income Statement Recognition

accounts are a natural extension of the rules for recording changes in owners' equity. The rules previously stated for recording increases and decreases in owners' equity are as follows.

- *Increases* in owners' equity are recorded by *credits*.
- *Decreases* in owners' equity are recorded by *debits*.

This rule is now extended to cover revenue and expense accounts.

- *Revenue* increases owners' equity; therefore, revenue is recorded by *credits*.
- *Expenses* decrease owners' equity; therefore, expenses are recorded by *debits*.

Dividends

A **dividend** is a distribution of assets (usually cash) by a corporation to its stockholders. In some respects, dividends are similar to expenses—they reduce both the assets and the owners' equity in the business. However, dividends are not an expense, and they are not deducted from revenue in the income statement. The reason why dividends are not viewed as an expense is that these payments do not serve to generate revenue. Rather, they are a distribution of profits to the owners of the business.

Since the declaration of a dividend reduces stockholders' equity, the dividend could be recorded by debiting the Retained Earnings account. However, a clearer record is created if a separate Dividends account is debited for all dividends to stockholders. The reporting of dividends in the financial statements will be illustrated in Chapter 5.

The debit-credit rules for revenue, expenses, and dividends are summarized below as follows.

Owners' Equity	
Decreases recorded by Debits	Increases recorded by Credits
Expenses decrease owners' equity	Revenue increases owners' equity
Expenses are recorded by Debits	Revenue is recorded by Credits
Dividends reduce owners' equity	
Dividends are recorded by Debits	

Debit-credit rules related to effect on owners' equity